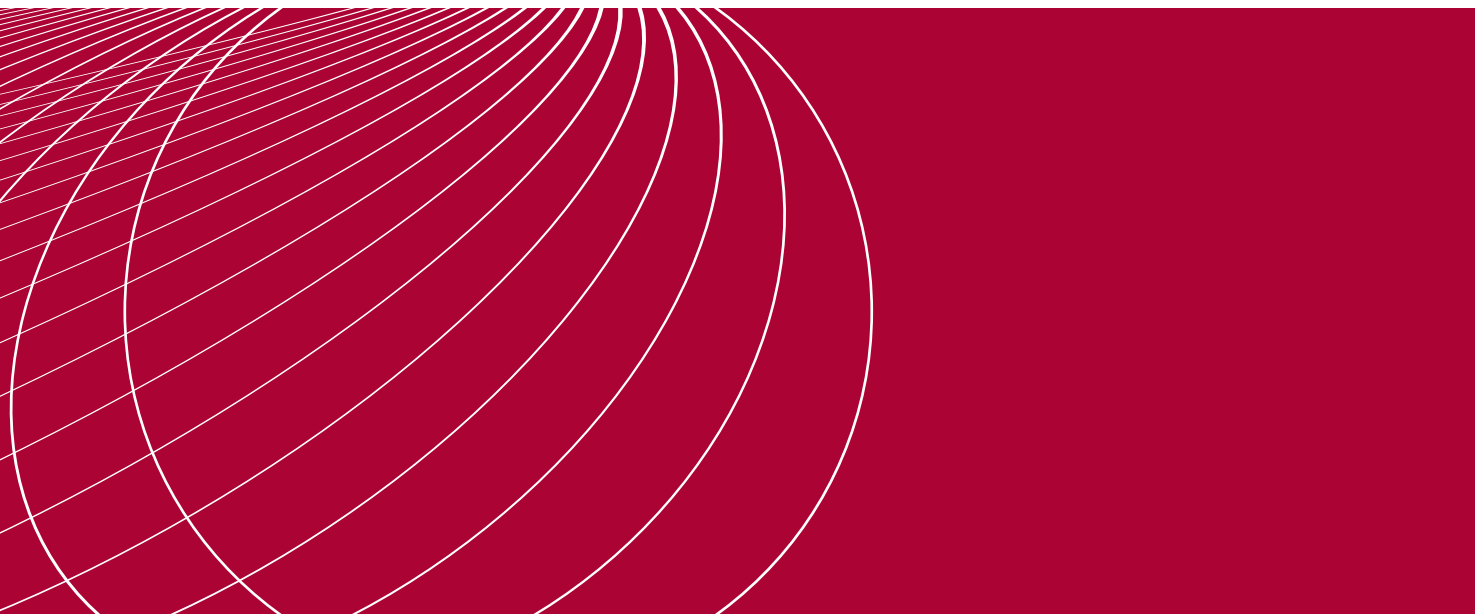


VOLKSWAGEN

AKTIENGESELLSCHAFT



Towards Mobility.

Varieties of Automobility in East and West

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Schriften zur Unternehmensgeschichte von Volkswagen, Band 3

Towards Mobility.

Varieties of Automobility in East and West

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Towards Mobility.

Varieties of Automobility in East and West

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01

Introduction

A Dutch-Russian love story from the Second World War took the Corporate History Department of Volkswagen to Moscow in the winter of 2006. “Olga and Piet. A love under two dictatorships,” a book tracing the history of a Dutch student and a young Russian girl who met and fell in love while they were forced laborers at the Volkswagenwerk in the “Stadt des KdF-Wagens” in 1943¹, was presented at the German Historical Institute in Moscow. During the event, a discussion evolved on the history of the automobile in the Soviet Union, on motorization in Russia since 1990 and on the strategies and investment projects of international automobile corporations in the Russian market. While in the past foreign investors hesitated for a long time before setting up production plants in Russia, the mindset would now appear to have changed.

The Volkswagen Group commissioned a plant with a planned annual capacity of 150,000 vehicles in Kaluga, 160 kilometers south west of Moscow, in November 2007; PSA Peugeot Citroën also plans to locate in Kaluga; Renault has taken over the Moscow Automotive Plant², which built the Moskvich until 1988, under the name of Autoframos; BMW AG has been running a CKD line at Avtotor AG in Kaliningrad since October 1999; General Motors, the American parent company of Opel, cooperates with AvtoVAZ to build the Niva SUV and is planning plants in Russia, Ukraine, Serbia and Uzbekistan; Toyota and Nissan are investing in new production capacities in the St. Petersburg region.

It is not easy for automakers from the United States, Europe or Japan to successfully gain a foothold in the Russian market. There are many structural and political reasons for this, all of them analyzed by economic experts and market researchers. But there are also historical facts and cultural conditions whose diagnosis furnishes valuable findings for economic forecasts and a reliable orientation regarding the present problems confronting automobile firms. Thus the idea to devote an international conference on the comparative history of the automobile and mobility since 1945 to these “soft” factors was born.

There is always a certain momentum about conference preparations. In our particular case, it was the content focus that shifted slightly. It became clear during our preparations that the time is not yet ripe for drawing parallels between East and West that are based on an equal footing. Compared with the USA or Western Europe, there is an enormous backlog in historical research on the history of mobility and the automobile in Eastern Europe, and in the Soviet Union in particular. So we decided to take the first step, to identify where such research originates, to present the findings to date and thus set the process of historical discussion in motion.³

¹ Olga und Piet. Eine Liebe in zwei Diktaturen, Wolfsburg 2006 (Historische Notate, hrsg. von der Historischen Kommunikation der Volkswagen Aktiengesellschaft, Heft 12).

² Name of the plant since 1968: Avtomobilnyi zavod im. Leninskogo komsomola (AZLK).

³ Meanwhile, in June 2008, Lewis Siegelbaum, Corinna Kuhr-Korolev and Luminita Gatejel organized a workshop in Berlin on “The Socialist car”, where participants discussed questions of automobilization in the Eastern Bloc countries after 1945.

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Sergei V. Zhuravlev/Maria R. Zezina/Rudolf G. Pichoia/Andrei K. Sokolov: AvtoVAZ mezhdru proshlym i budushchim. Istoriia volzhskogo avtomobil'nogo zavoda 1966-2005, Moskva 2006.

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There is still a difference in price between Russian cars and foreign models. Depending on the equipment, the price of a new Lada is between 3,500 and 4,000 euros. Models such as the Kalina, Niva or Samara cost between 5,500 and 6,500 euros. The starting price for the cheapest foreign models in this class is 8,000 euros. In the early 1990s the price of new foreign vehicles was even higher due to the lack of sales structures.

Sergei Zhuravlev of the Institute of Russian History of the Russian Academy of Sciences was in charge of planning the conference content. Together with Andrei Sokolov and Maria Zezina, he recently completed a complex project on the history of AvtoVAZ.⁴ Excerpts from the research findings were presented at the conference. This was one reason why special attention was devoted to the Soviet Union (L. Siegelbaum, L. Gatejel) and its “automotive foreign relations” with Germany in particular (M. Grieger, B. Ciesla). Flanking this, contributions on the history of the automobile and the corporate cultures of American (S. Meyer), German (D. Schlinkert, A. Lüdtkke) or French automakers (P. Fridenson) provided a rich and contrasting tapestry for a dialog. There were four main themes: Mobility visions and automobile cultures, international competition and technical cooperation across ideological blocs, workforces and corporate cultures, and the transformation of the socialist automotive industry following the end of the Cold War.

Drastic changes have engulfed the automobile industry in Eastern and South Eastern Europe since 1990. In the former GDR, the Trabant and Wartburg stood little chance of holding out against competition from West German or Japanese automakers. Production shut down in 1991. Škoda in the Czech Republic emerged as a company that successfully mastered the transition from a planned economy to a market economy following the “Velvet Revolution.” The brand from Mladá Boleslav with a rich automobile tradition became part of the Volkswagen Group in December 1990; its Fabia, Octavia, Superb and Roomster models have all found customers on the automobile market in the West. The commissioning of the CKD plants in Solomonovo (Ukraine) 2003 and Ust-Kamenogorsk (Kazakhstan) in 2005 formed part of Škoda’s investment in the emerging markets in Asia and Eastern Europe. ZAZ remained the largest automaker in Ukraine. This is where the successors to the Zaporozhets, the Tavria and Slavuta models, as well as the Russian Lada are produced alongside foreign models for the Daewoo, Chevrolet and Opel brands.

The Russian automobile industry was able to withstand competitive pressure from the West for a long time. This was due to many factors: the lack of purchasing power in the 1990s, the significantly more favorable price of domestically produced automobiles compared with the price of foreign models, the high cost of buying and repairing a foreign car, and delays in delivering spare parts for autos built by foreign manufacturers.⁵ Consequently, investments by American, European or Japanese automakers in Russia back then were both cautious and rare. The picture has since changed and the demise of the “fatherland” automotive industry seems almost inevitable. Renault has been producing the Clio at the Moscow Automotive Plant since 2002 and the Logan since 2005. There has been a very sharp decline in produc-

tion of the Volga, once the automobile of the Soviet elite, at the GAZ factory in Nizhnyi Novgorod (formerly Gorki), and there is a question mark as to how long the brand can continue in existence. The future of the plant lies in the cooperation concluded with Chrysler in 2006. The first fruit of this cooperation is the new Saiber limousine; the first model left the assembly line in March 2008.

Only AvtoVAZ, the gigantic automobile plant in the Central Volga region built in 1966 with support from Fiat, is still producing cars for the domestic market and for export. AvtoVAZ has undergone massive strategic and management changes since 1990 and survived. As a typical Russian oligopoly, AvtoVAZ stayed afloat as the only domestic car manufacturer on the Russian market because of its size and monopoly position. It is therefore no coincidence that priority was given to AvtoVAZ at the conference. The question as to how and whether the plant and, by extension, the national automobile industry, can continue to exist has recently acquired a new urgency. Western investors such as General Motors, which has now begun to build the Chevrolet Lacetti and Aveo in addition to the Niva, or Renault, which has acquired a 25 percent share package, gave considerable thought to whether it was meaningful to set up cooperation and take over the “Soviet inheritance.” But what exactly does this mean? What is the legacy of the socialist economy? The downside undoubtedly includes the striking technical deficits, the poor productivity of the plants and the quality of the vehicles, an outdated machinery fleet, the lack of qualified technical personnel and young talent, corrupt structures at the plants and strong networking with the power elite.⁶

As historians, our primary interest concerns the structures that have evolved and the social, economic and cultural interaction between businesses and their “environments.” Consequently, a particular focus of the conference dealt with corporate culture. How did a specific corporate culture evolve? How has this culture changed since 1945? What are the recognizable differences among the various socialist plants? How do research observations on the corporate culture of Russian auto manufacturers fit into the global player concepts defined for the automobile world? Or as Dirk Schlinkert phrased his question, are we talking about the same thing when we refer to “corporate culture” in an international context?

Looking back, investment by American or European automobile corporations in Eastern Europe is not an entirely new phenomenon.⁷ In many respects, these activities follow on from cooperation projects which originated in the years between the wars and were revived after 1945. Immediately following the Second World War, the United States delivered technology and know-how for reestablishing vehicle production to its former ally, the Soviet Union. The machinery and plant transported from Germany to

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In his presentation, Andrei Sokolov provides a vivid description of the escalating situation at AvtoVAZ in the 1990s. In a more general context: Christina Otten: Korruption gehört zum Alltag in Russland, in: Handelsblatt.com, 15 September 2006; Jens Hartmann: In Putins Russland blüht die Korruption, in: Welt-Online, 28 November 2007; Verena Diethelm: Russische Autoindustrie bringt Chancen für Zulieferer, in: Wirtschaftsblatt.at, 16 October 2007, 13. Relating to corruption in Russia: Kerstin Holm: Das korrupte Imperium. Ein russisches Panorama, München 2003 and Sonja Margolina's criticism: Korruption wohin wir blicken. Warum die Journalistin Kerstin Holm Russland gründlich satt hat, in: Zeit online 40/2003, 31.

– 7

On the beginnings of Joint-Ventures of Volkswagen Group in the Soviet Union cf. Grieger, passim.

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Cf. Werner Abelshauer: *Two Kinds of Fordism. On the differing roles of the Industry in the Development of the two German states*, in: *Fordism Transformed*. Ed. by Harushito Shiomi/Kazuo Wada, Oxford 1995, 282ff.

_9

Reiner Flik: *Von Ford lernen? Automobilbau und Motorisierung in Deutschland bis 1933*, Köln 2001, 288.

_10

Flik, Ford, 1-29.

_11

Wolfgang König: *Volkswagen, Volksempfänger, Volksgemeinschaft*, Paderborn 2004; Dirk Schlinkert: "... und läuft und läuft und läuft."- zur Nachkriegsgeschichte von Volkswagen und seinen Erfolgsmodellen, in: *Landesgeschichte im Landtag*, Hannover 2007, 507ff.; Manfred Grieger: *Boom am Mittelstandskanal*, in: *Werkschau 1. Fotografien aus dem Volkswagenwerk 1948 bis 1974*, Wolfsburg 2004, 16ff.

the Soviet Union as reparations must be seen in this context. Drawing on sources from Soviet statistics and other archival documents, Andrei Miniuk delivers an impressive account of how machines were only put to very inefficient use in the USSR. This kind of "technology transfer" heralded the resumption of vehicle production in Russia. But there was a tight corridor for unit production and deliveries, and ambitious expectations were not met.

East European countries went their own ways. Western technology was needed, and intensive economic cooperation between East and West developed despite the Cold War. The boundaries between ideological blocs proved surprisingly elastic. Fiat and Renault in particular were closely involved in establishing the mass production of small vehicles in socialist countries. The GDR developed the Wartburg and the Trabant (K. Möser, M. Grieger). Cooperation with Volkswagen did not begin to intensify until the late summer of 1982; as a result of this cooperation, the Wartburg and Trabant were equipped with the 801 engine from the Wolfsburg-based company's engine program.⁸ Czechoslovakia also had a tradition of building cars stretching back to the pre-war era in which the American model played an important role. Valentina Fava discusses how America, and later the Soviet Union, had an impact on Czech automobile production and laid the foundations for Škoda.

Differences: Time

The technological knowledge required to manufacture high-volume series of automobiles already existed before the First World War. It is therefore all the more remarkable that series production of cars and the associated mass motorization of the population in the United States, Western Europe and East European countries should have followed such very different time corridors. More than 15 million Model T left the assembly lines at Ford's Detroit plants between 1909 and 1927. In the mid-1920s, car ownership in the USA was 173 per 1,000 inhabitants, 77 in Canada, 20 in Great Britain and 17.8 in France. Germany, with 4.1 cars per 1,000 lagged far behind.⁹ During the period between the wars, workshops in Germany mainly built luxury limousines which only a tiny share of the population could afford.¹⁰ This situation only changed at breathtaking speed after 1958, as the West German "Wirtschaftswunder" ("economic miracle") took off and large sections of the population could afford to buy a car.¹¹ For France, England and Italy, too, mass mobilization emerged in the 1950s and the term "motorized society" would be a correct epithet to describe the situation in Western Europe until approximately 1968.

This development began in COMECON countries 15 years later. Political, ideological and economic causes prevented the widespread mobilization of the population. While the GDR and Czechoslovakia could fall back on the pre-war automobile tradition, automotive production for private consumers did not begin in the Soviet Union, Poland and Romania until the late 1960s. The number of cars in the GDR rose from 1.16 to 2.68 million between 1970 and 1980 but still failed by a long chalk to meet demand.¹² Cars were in very short supply in the Soviet Union right up until the collapse in 1990. AvtoVAZ produced large volumes of Lada brand small cars as of 1970 – there were some 10 million cars on the road in 1980 – but once again this only satisfied a very small share of demand. For Russia, it would only be true to talk of the broad-scale spread of the automobile across social strata and a significant increase in individual mobility from the 1990s onwards.¹³

The collective versus the individual

Mobilization processes unfold in many ways and heterogeneity sets its stamp of developments. During the 1920s and 1930s in the United States, the rapid rise in the number of vehicles for private use was bolstered by demand from farmers for serviceable and low-cost vehicles which they could use both for transporting their produce to the country markets and for urban lifestyle.¹⁴ The situation in the Soviet Union, both pre- and post-1945, was entirely different: agricultural collectivization in the early 1930s deprived private farming of its livelihood. There was hardly any road infrastructure. Even in 1985, paved roads only accounted for half of the public road network. Russian roads divided more than they united.¹⁵ When car production began to rise sharply in the 1970s, it was mainly city dwellers with sufficient savings who could afford to buy them. They used their cars, for example, to escape from urban life, driving out to their dachas to grow their own fruit and vegetables. The car had become part of Soviet “bourgeois lifestyle” which sought and found its leisure pursuits outside city boundaries.

Market and infrastructure

Apart from Russia’s legendary dearth of roads, the permanently tense economic situation and the political principle of deploying scarce resources to serve major industry and armaments factories, the ideologically-motivated attitude of political

¹² K. Kuhn: *Das eilige Jahrhundert*, Hamburg 1995, 129.

¹³ For the history of the car in the Soviet Union: Lewis Siegelbaum: *Cars for the Comrades. The Life to the Soviet Automobile*, Ithaca 2008. The number of cars in Moscow in 1991 is estimated at 600,000, while this figure has now risen to 4 million.

¹⁴ Flik, Ford, 38ff.

¹⁵ Johannes Grützmaker: *Kraftverkehr*, in: *Handbuch der Geschichte Russlands*. Ed. by Stefan Plaggenborg, Stuttgart 2003, 1127ff.

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Cf. Maria Zezina in her contribution to this publication. Siegelbaum, Cars; Gruetzmacher, Kraftverkehr.

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Michael Wildt: Vom kleinen Wohlstand, Frankfurt am Main 1996; Arne Andersen: Der Traum vom guten Leben, Frankfurt am Main 1997; Hannes Siegrist: Europäische Kulturgeschichte, Frankfurt am Main 1997.

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Harm Schröter: Erfolgsfaktor Marketing, in: Wirtschaft, Gesellschaft, Unternehmen. Ed. by Winfried Feldenkirchen, Stuttgart 1995, vol. 2, 1099ff.; Ingo Köhler: Marketing als Krisenstrategie. Die deutsche Automobilindustrie und die Herausforderungen der 1970er Jahre, in: Marketinggeschichte. Ed. by Hartmut Berghoff, Frankfurt am Main 2007, 259-295; Dirk Schlinkert: Von der Reklame zum Marketing, in: Es gibt Formen, die man nicht verbessern kann. 50 Jahre Volkswagen Werbung. Ed. by Andreas Schilling, Hamburg 2002, 8ff.

leaders who frowned on the private use of automobiles and deprecated individual mobility also played an important role. In 1929, when Stalin pushed forward the expansion of the automobile industry as one of his modernization projects, the focus was on building trucks to serve agricultural production. Automobiles for ordinary citizens were considered unproductive and individualistic. For a long time, Soviet governments stuck to traffic concepts that conformed to the collectivist approach of communist state ideology. On his return from a visit to the USA in 1959, Khrushchev advocated a socialist version of mobility, and initiated a final attempt in this regard by setting up state fleets of cars accessible for private use. This experiment failed almost before it had got off the ground, given insufficient numbers, poor maintenance and the erratic reliability of the vehicles. Only under the new leadership of Brezhnev did the automobile industry finally begin to expand. Rising production was accompanied by a lavish media campaign to legitimize car ownership.¹⁶

Politics also played a key role in the belated motorization of the GDR. Although the infrastructure and technical conditions bore no relation to those of the “Big Brother” in the Soviet Union, nevertheless the GDR leadership also decided in favor of conserving resources and supporting other branches of industry.

Consumption

Much has been written about consumption in Western Europe and the GDR in recent years.¹⁷ Historians are, however, only just discovering the subject with reference to the Soviet Union, particularly as regards the car as one of the most important and most coveted consumer goods. In the West, cars have always been a status symbol and a form of social distinction, and consumer groups whose individual requirements and wishes determined manufacturers’ product ranges began to emerge. When the marketing concept was introduced in the early 1970s, the automobile industry discovered potential buyers in specific customer groupings and social segments, and began designing and building cars for these categories of buyers.¹⁸ The customer increasingly acquired an individual profile and automotive diversity began to set its stamp on the model range, continuing to do so today.

In the meantime, a two-tier society had developed in the Soviet Union as regards motorization: the political nomenklatura with its drivers and official cars, and the vast remainder of the population which traveled in overcrowded buses and metros. Official cars, the majority of which were black Volgas post-1956, primarily symbolized political

and social power followed by affluence – two elements which were in essence indivisible in the socialist state. The attributes associated with the automobile were not only positive, precisely because these vehicles were a visible symbol of the privileged status of the power elite and also closely associated with the state apparatus of repression.¹⁹ During the Great Terror of the 1930s, officers of the NKVD secret service came to collect suspected opponents of the regime in the “Black Ravens.”

Soviet citizens could only realize their automotive dreams once elementary consumer needs had been met: accommodation and furniture, clothing and food, TV and radio, fridge, vacuum cleaner and washing machine. Even in 1965, for instance, 11 out of every 100 families owned a fridge, 21 in every 100 a washing machine and 24 in every 100 a TV. As wages rose, restrictions on financial resources were lifted, coinciding with the emergence of mass production, and the small car only became an affordable consumer item for Soviet citizens from the 1970s on.²⁰ However, waiting lists were long and the used car market significantly overpriced, as production volumes were far too low and the product offering much too small. In this shortage situation, buying and owning a car acquired the taste of semi-legality: However, these negative connotations gradually disappeared as motorization became more widespread and a car became an affordable option for growing numbers of the population. Towards the end of the Soviet era, there were even signs of an affinity between particular classes of society and particular model types, or in other words, a differentiation in the status affiliations of the car.²¹ According to Möser, a similar phenomenon occurred in the GDR.

Symbolism and affiliations

In both the modern and post-modern eras, the automobile is the quintessential symbol of freedom, independence and individuality. While these values were rated highly by American or European consumer societies, they were at best barely compatible with the socialistic culture of collectivism and the common goal of a “bright future.” But people’s desire for their own car and individual mobility nevertheless persisted. How and when governments in the various socialist countries bowed to the “people’s pressure” and the impact of “automobilization” on socialist societies are questions still to be researched, particularly in a comparison among East European countries.

¹⁹ Zezina in this publication; Siegelbaum, Cars 188.

²⁰ Stefan Plaggenborg: Konsum, in: Handbuch der Geschichte Russlands. Ed. by Manfred Hellmann, Stuttgart 2003, vol. 5, II, 811-821.

²¹ Lewis Siegelbaum: The Socialist Car. A tour d’horizon. Unpublished paper. Some theses for the conference: Socialist Car, Berlin June 13-14, 2008.

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Siegelbaum, Cars; Corinna Kuhr-Korolev: Women and Cars in Soviet Society. Unpublished paper given at the AAASS 40th National Convention, Philadelphia November 20-23, 2008.

In their contributions, Marie Zezina, Lewis Siegelbaum and Luminita Gatejel examine various aspects of Soviet automotive culture and also refer to the treatment of the car in art and the media. The romantic association of driving along in a car or truck is one of the prominent themes in literature and film. The road movie genre is anchored in the culture of the USA and Western Europe as well as the Soviet Union and Eastern Europe. The cultural pattern would appear to be identical, but the individual scenes differ very significantly from country to country and depend on the development of automotive culture.

In Eastern Europe, this culture was characterized by a permanent shortage of automobiles and parts. While workshops in the West kitted out the cars of their trendy young customers with spoilers, special paintwork and stereos, fathers in the East tinkered with their Ladas or Moskvitschs to keep them in a roadworthy condition or restore them to a semblance of such a state. In the Soviet Union, buying and driving a car was not all it took. Owning a car also called for the skills of a car mechanic – bringing back memories of the first decades of automobilism in Western Europe – and it was always wise to keep a toolkit and essential spare parts in the boot. This was one crucial reason why the car remained an undisputedly male domain and only a small percentage of women got behind the steering wheel.²²

Competing systems

The automotive sector is a key industry in Western Europe and the United States. In his overview of the American automobile industry, Steven Meyer describes the strong interaction between the economy and automobile corporations since the 1920s. Kurt Möser and Patrick Fridenson go into this in further detail with regard to the Federal Republic of Germany and France after the Second World War. The automobile was, and still is, a symbol of prosperity and a yardstick for the progressive character of an economy and its society. Roads, fast travel and smooth traffic flows facilitate, and even epitomize, a country's modernity. As Alf Lüdtke demonstrates, the technical know-how to develop and build automobiles which are sold successfully on national and international markets and the pride taken in claiming that "our cars are the best" are important elements of a national identity that has evolved over decades, comparable to a national team's victory in the final of soccer's World Cup. In this sense, the automobile industry in the United States and Western Europe has always exerted a stabilizing effect on the system.

For a long time, the situation was different in Eastern Europe. An automotive industry developed late, much later. In the Soviet Union, meeting the targets for heavy industry or agriculture, or proving superiority in armaments or space technology were the symbols for prosperity, progress and technological prowess. As the consumer goods industry began to play a more prominent role, the success of this particular branch of industry became an increasingly important factor by which the government was judged. So the government entered the ring to compete for the approval of its own people as well as squaring off with competitors in the West and in other East European states.

The automobile industry played, and continues to play, a key role in social peace. Collective agreements between employers and employees were seen as a barometer for the situation throughout the country. The automobile industry was a trendsetter. Steven Meyer traces the origins of trade unions and labor representation in the USA and their significance for union standards in the American social system. Big automobile corporations not only represent the plants used to build cars; they are simultaneously a vast complex of social structures and diverse environments inextricably linked to the company itself. There are many points of contact between the everyday lives of people who work for such corporations and the workplace – company health schemes and medical care, housing, childcare and education, leisure and vacations.

Such “totality” of interaction applied in particular to the big automobile producers in socialist states. For the Soviet Union, the Tol’iatti plant was not just built to produce vehicles for a broad spectrum of social classes. The aim was also to build a factory, and around it, a town, that constituted a role model for the entire Soviet Union. This was the goal for the qualification and work ethos of the employees, the plant’s social benefits, productivity and product quality. In some respects, AvtoVAZ lived up to these expectations and was for a long time considered to be the showcase production plant in the Soviet Union. This status more than justifies the attention devoted to AvtoVAZ in this publication. The contributions by Andrei Sokolov, Sergei Zhuravlev and Vladimir Iamashev examine the history of the plant spanning a good thirty years and pay particular attention to changes within the plant and in labor relations. They impressively describe the consequences of the collapse in the 1990s, a chapter which Russians consider closed and which has only now become accessible in a historical context. At the same time, the events of this period laid the structural foundations and conditions on which Western investors are now basing their commitment in Russia.

The automobile and the environment

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Moscow Times, June 19, 2007;
 Robert Argenbright: Moscow's
 Third Transport Ring: Making
 Space for the New Middle Class,
 in: Osteuropa 53, Vol. 9-10/2003,
 1386-1399. Viktorija Bitjukova/
 Ekaterina Sokolova:
 Vor dem Kollaps. Moskaus
 verkehrter Verkehr, in:
 Osteuropa 58, Vol. 4-5/2008,
 351-358.

The image of the automobile came under pressure in Western Europe and the United States with the advent of the first oil crisis. Growing environmental awareness and criticism of the affluent society and of what was seen as the socially unjust policy of industrialized nations labeled the automobile as the symbol of a capitalist economic order which was evolving in the wrong direction. The crisis appeared to have been laid to rest after several years of hefty debate in political circles and the general public, only to flare up again as a highly globalized automobile market emerged at the beginning of the new millennium.

An environmental movement began to emerge in Russia and Eastern Europe during the Glasnost period, and proliferated when disaster struck the Chernobyl nuclear reactor. However, an environmental awareness that pervades every aspect of the day-to-day life of Russian citizens is still very much in its infancy. Growing traffic volumes in the major cities or the permanent traffic jams in Moscow are seen as an annoying nuisance, but they do not stop more and more people from turning to the automobile and individual mobility. The number of new car registrations in Moscow rises by 150,000 each year, there are 650 traffic jams each day, the average driver in Moscow spends almost eleven hours a month sitting in a jam.²³ Nevertheless, fuel prices and fuel consumption are at best an issue for taxi drivers, who use them to justify higher prices for their fares. In essence, though, people in Russia drive the car they can afford. The owners of jeeps almost the size of a small row house have no scruples, either as regards average fuel consumption of 18 liters per 100 kilometers or in view of the negative image and social envy such vehicles create.

Outlook

As globalization progresses, the markets in East and West will draw even closer together than has already been the case in the last ten years. Social trends and problems associated with the development, production, sale, communication, service and everyday use of the automobile will become increasingly similar. The delayed development of motorization in Eastern Europe after 1945 will continue to have an impact in the 21st century. Eastern and Central European nations that have already joined the European Union or are seeking integration will profit more quickly from the experience of Western states or the United States and may even realize alternative traffic concepts. At the same time, demand for automobiles and mobility will remain high, given the immense demand backlog.

Russia holds a special position: lucrative revenues from oil and gas are generating a positive economic balance. Demand for automobiles is extremely high. Slowly but surely, a powerful class of customers that can afford a car is developing. According to one study, the automotive market accounted for 32 billion euros in 2007 and is to double by 2011.²⁴ Since 2002, the Russian government has been attempting to stem the rapid decline of the Russian automobile industry, for example by heavy increases in import duties. International automakers are being encouraged to set up production in Russia with the promise of tax breaks and lower customs duties. They are expected to make a commitment to gradually move to full production and increase the share of local content to at least 60 percent.²⁵

If this policy is to be successful – and investment decisions by major corporations over the last three years would indicate this is the case – the question still remains as to whether this can be “packaged” and politically communicated as a victory for indigenous industry. When a Lada still bears the Lada name, but is in fact a Renault; when a Volga-Chrysler named Saiber emerges from the Volga region; and when a Patriot from Kazan’ becomes easier to sell thanks to a Bosch ABS unit, this can all be put down to globalization which does not stop at Russia. But it is hard to talk about a “domestic” automobile industry any longer. And that puts the Russian government in a dilemma. In economic terms it cannot manage without buying Western know-how if it wants to restructure or recreate the national automobile industry. In political terms, though, that cannot be reconciled with the rhetoric about reverting to native strengths. Whether the government will encourage, tolerate or prevent the commitment and investment projects of American, European or Japanese automakers remains to be seen. <<

Corinna Kuhr-Korolev / Dirk Schlinkert
(summer 2008)

²⁴ Diethelm, Autoindustrie.

²⁵ Journal KPMG, 2008, Schwerpunkt Automotive, 16.

02

Lewis H. Siegelbaum

The Impact of Motorization on Soviet Society after 1945

Before we can assess the effect of motorization on the USSR, we need to assess the effect of the USSR on motorization. We should start from the recognition that the automobile – here meant to refer to the passenger car – was an awkward fit with the Communist Party’s collectivist ideology and the Soviet government’s commitment to providing cheap and efficient means of public transportation. Cars assigned to party and state officials for their “personal use” were intended to be “hidden in plain sight,” noticed perhaps, but not commented upon. Long after cars had ceased to be associated in Western Europe and North America with the bourgeoisie and its lifestyle, that association remained potent in the USSR.

I do not mean to suggest that ideological prejudice was the only reason for the retarded development of the automobile in the USSR. Overwhelmingly concerned with issues of national defense and economic development (which often was regarded as contributing to national defense), party and state leaders plumbed for the production of trucks rather than cars. As late as 1964, Soviet factories were producing more than twice as many of the former as the latter and only in 1972 did car production outpace that of trucks. Even then, a substantial portion of cars – as much as 30 percent – were consigned for export.

Yet, there surely was something ideological about what the Soviet media emphasized about cars, at least before the middle of the 1960s. Before the Second World War the most celebrated attribute of the automobile was the technology associated with its production – specifically, the assembly line pioneered at Ford and installed at GAZ in the early 1930s – rather than the cars themselves. Symbolically, automobiles figured as part of the country’s triumph over the condition of backwardness, as gifts from a generous paterfamilias to outstanding Stakhanovites and other members of “Stalin’s tribe,” and, in the case of the ZIS limousines (which were not products of assembly lines), as the state on wheels. Alternative uses and meanings also existed. On a popular level, cars were associated with the privileged world of officialdom – including the dreaded NKVD which employed “Black Marias” or “Ravens” on nightly round-ups – and with the frequently fantasized living conditions abroad, especially in the United States.

Moreover, despite the fact that many models were copied from analogues in the west, Soviet cars were different in their technical attributes, typically sitting higher off the ground, weighing more because of the use of heavier metals, and having less “give” in steering. All these features were necessary to negotiate one of the country’s real misfortunes, namely, its roads. Roads in the USSR were legendarily bad, where they existed at all. The difficulty of traveling by automobile from point A to point B

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See references to road closures at Belorusskaia Assotsiatsiia Mezhdunarodnykh Avtomobil'nykh Perevozchikov - "Novosti" at Accessed 05.12.05.

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Steven E. Harris: Moving to the Separate Apartment: Building, Distributing, Furnishing, and Living in Urban Housing in Soviet Russia, 1950s-19560s, Chicago 2003, 438-39.

(where neither was a republic or oblast capital) can hardly be exaggerated. The term "roadlessness" inherited from tsarist times, survived in Soviet discourse well into the 1950s. Climate had something to do with roadlessness. The notorious *распутица* essentially made islands of the villages scattered throughout the Soviet countryside. If roadlessness eventually was conquered or at least disappeared from the lamentations of officialdom, *rasputitsa* has survived to this day.²⁶

But climate was not the only reason for the poor condition of Soviet roads. It must be connected, at least in the Stalin era, with the fact that from 1935 until 1953 administrative responsibility for road construction and maintenance was vested in the security apparatus, namely, Gushosdor (an acronym for *Glavnoe upravlenie shosseinykh dorog*), a department within the NKVD and from 1946, the MVD. This meant at least partial reliance on poorly motivated and under-equipped laborers, primarily inmates borrowed or reassigned from the Gulag, and also during the war by POWs. Most rural roads were maintained by kolkhoz and sovkhos peasants according to the system of labor obligations (*trudovaia povinnost'*) that was introduced in the late 1920s and periodically revised. Requiring all able-bodied rural residents ages 18 to 45 to provide six days of labor to road work, it was as onerous as it was unenforceable. Yet it persisted in the RSFSR until 1959 when the Council of Ministers decreed that all *kolkhozes*, *sovkhozes*, industrial, transportation, and other enterprises were obliged to contribute to the upkeep of roads either monetarily or in kind.

The Soviet context in which automobiles were produced and made available to the public was not restricted to administrative organs and their policies. It also had to do with social attitudes that emerged *pari passu* with those policies. The acquisition of a car might have been something profoundly desired by many Soviet citizens, but because only a privileged few had the chance – at least until the 1980s – their good fortune was not always appreciated by their neighbors. Stephen Harris has written, in reference to letters to the Leningrad press and resolutions passed at residents' meetings in the late 1950s and early 1960s, that "given the opportunity to voice their collective input, residents overwhelmingly rejected garages." Why? For some it was that "car owners, their automobiles, and single-car garages dirtied new housing estates and generally got in the way of people's everyday lives." For others car owners were a convenient explanation for the inadequacy of public transport, presumably on the grounds that if officials had to rely on buses, trams, and the like rather than their own cars, they would improve public conveyances. Judging from the terms that were used to refer to car owners – "private persons" (*chastnye litsa/chastniki*), and "independent proprietors" (*edinolichniki*) – there also was a moral dimension. To own a car was to set oneself apart from the community.²⁷

Finally even in the 1970s and 1980s when Soviet factories were producing an average of approximately one million cars per year, their availability bore little if any relation to demand. This meant that, like other *defitsitnye tovary*, cars could be obtained only (or at best, mainly) via the exchange of favors (*blat*), or through the informal grey/shadow economy. Used cars, nominally obtained through state-run commission stores, more often involved payments on the side that typically amounted to more than the price of a new car. Maintaining and safeguarding cars inevitably drew owners into semi-legal or illegal practices that put those committing them at some risk vis-à-vis law enforcement officials but gradually became absorbed within everyday life. The state's accommodation under Brezhnev of mass private (or "personal") ownership of automobiles but its unwillingness to invest sufficient funds in spare parts production, the construction and operation of service stations, garages, and a whole series of other infrastructural facilities is what I have called a Faustian bargain.²⁸ I use this term to emphasize the inevitability of automobile owners' reliance on heterodox and illegal practices that included hiring of labor, appropriating state property for private (again, "personal") use and profit, and diverting time away from the performance of one's job and other social responsibilities to the care and feeding of one's car. One statistic will suffice to illustrate the extent of such activity: at least 75 percent of all gasoline used by private car owners in 1982 was obtained illegally.²⁹

This "bargain," which I have treated here as part of the Soviet environment, represents at the same time a significant effect that motorization had on the country, a point to which I shall return shortly. First, though, it is important to acknowledge the ideological work that was required to accommodate the expansion of car ownership. Pity the poor automobilist (*avtoliubitel'*), a term that combines the notions of amateur and enthusiast. This was the message of an article appearing in *Izvestiia* in January 1965, a few months after Nikita Khrushchev's forced retirement. "I'm an engineer, and it took me ten years to come up with the money for this car," complained the driver of a Zaporozhets late one evening when he stopped to give a lift to the reporter. "And here's what I don't understand (...). It baffles me why when a person buys a television, a piano, a carpet or other junk it's called the growth of well-being. But deny yourself all these charms, go into debt and obtain the most modest automobile or even win a Moskvich in the lottery, and you immediately become a suspicious private person (*chastnik*)." And where was one to wash one's car? Not in the courtyard – the community (*obshchestvennost'*) wouldn't permit it. The nearest carwash was 15 kilometers away and you would have to wait at least three hours for your turn. As for parking, at nine rubles a month a parking place in the open air cost more than a two-room apartment with central heating and hot water.³⁰

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Lewis H. Siegelbaum: *Cars, Cars, and More Cars: The Faustian Bargain of the Brezhnev Era*, in: *Borders of Socialism: Private Spheres of Soviet Russia*, New York 2006, 83-103.

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Michael Alexeev: *Underground Market for Gasoline in the USSR*, in: *Berkeley-Duke Occasional Papers on the Second Economy in the USSR* (9) 1987, 17.

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Izvestiia, January 28, 1965, 3.

_ 31

Izvestiia, March 4, 1966, 3; March 5, 1966, 3.

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The proportion of Soviet households reported as owning televisions and refrigerators rose respectively from 24 and 11 percent in 1965, to 74 and 65 percent in 1975, and 92 and 89 percent in 1982; See Table 2.6 in David Lane: *Soviet Economy and Society*, New York 1985, 58; For references to these items in connection with automobile ownership, see D. P. Velikanov: *Avtomobil' i my*, in: *Literaturnaia Gazeta*, March 19, 1971, 12; *Pravda*, July 24, 1971, 3; Leonid Lichodeev: *Ia i moi avtomobil'*, M. 1972, 17-19 ("Do you have a TV, do you have a refrigerator? So, there will be a car."); G. N. Andrienko: *Legkovyi avtomobil' v sem'e*, in: *Ekonomika i organizatsiia promyshlennogo proizvodstva*, 1985, 106.

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Grace Lees-Maffei: Men, Motors, Markets and Women, in: *Autopia, Cars and Culture*. Ed. by Peter Wollen/Joe Kerr, London 2002, 363-70; Roland Barthes: *La voiture, projection de l'égo*, in: *Réalités* (213) 1963; see also Wolfgang Sachs: *For Love of the Automobile: Looking Back into the History of Our Desires*, Berkeley/Los Angeles 1992; David Gartman: *Auto Opium: a Social History of Automobile Design*, London 1994.

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For an acute analysis of the film, see David MacFadyen: *The Sad Comedy of El'dar Riazanov: An Introduction to Russia's Most Popular Filmmaker*, Montreal 2003, 112-123.

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A. Iarovikov et al: *V prodazhe – avtomobil'*, in: *Sovetskaia trgovlia* (5) 1974, 26. Andrienko, *Legkovyi avtomobil'* 112.

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Vladimir Voinovich: *The Anti-Soviet Soviet Union*, San Diego 1985, 5-6.

_ 37

David Willis: *Klass: How Russians Really Live*, New York 1985, 8.

Clearly it was time to change attitudes toward car owners. They should be recognized as fully fledged citizens, no different from the owners of other durable goods. “Older citizens,” wrote another *Izvestiia* reporter in March 1966, “remember a time not too long ago when wristwatches and bicycles were luxury items, to say nothing of radio receivers, televisions, and vacuum cleaners. But now these things have entered into daily life.” So would automobiles, the article continued, including them along with motorcycles, furniture, and radio receivers among items whose supply was increasing.³¹ Later in the Brezhnev era, the impressive increase in the proportion of households with televisions and refrigerators made them obvious precedents for the expansion of car ownership and the identification of the passenger car as simply another item for “personal use.”³²

This discourse was a far cry from the creation of demand in the West through the emphasis in advertising on “men, motors, markets and women.”³³ It did not solicit consumers’ interest in purchasing cars, but rather popular acceptance of those fortunate enough to have done so. One of the benchmarks in this process was El'dar Riazanov’s “Look Out for the Car” (*Berergis’ avtomobilia*, 1966), a film that managed both to reinforce popular assumptions about the crookedness of car owners and to express sympathy for that beleaguered group of people.³⁴

Nevertheless, as researchers at the All-Union Scientific Research Institute for the Study of Consumer Demand discovered (and as both actual and prospective owners of cars already knew), not all cars were equal in the eyes of Soviet citizens. It turned out that according to the institute’s study from 1974, “engineering-technical and scientific workers” preferred the VAZ-2103, teachers and doctors were inclined toward the Moskvich-427, and pensioners were at opposite ends of the price and prestige spectrum in their preferences for the Zaporozhets-968 and the Volga-24.³⁵ No less authoritative were the observations of the writer, Vladimir Voinovich, that were based on his own experience. When Voinovich announced to a hotel clerk in Minsk that his car was a Zaporozhets, he was met with a scowl, because while “others may not, (...) a clerk in a good hotel knows that important people never drive anything less than a Zhiguli.” Policemen also made distinctions, knowing that they could “always squeeze a ruble out of the driver of a Zaporozhets” had “to be more polite with the driver of a Zhiguli” should leave Volga drivers alone, and were expected to salute Chaika and ZIL limousines.³⁶

Foreign cars such as those spotted in Moscow by the Western journalist David Willis were clear markers of “high class.”³⁷ And why not, when none other than Leonid Ilych Brezhnev himself was reputed to have a “private stable of more than a dozen

fast and expensive cars” including two Rolls Royces, a Cadillac, Mercedes-Benz, and Citroën.³⁸

So, one of the effects of motorization was to provide a new set of social markers by which Soviet citizens distinguished themselves and could be distinguished by others. We still need to know more about this development. Did the prestige of models vary from one republic to another? Did a second-hand Volga “rank” higher than a brand new Zhiguli? Was there anything equivalent to the American practice of “customizing” cars, or in light of the notorious shortage of parts, were all cars customized?

At this point I want to focus on the consequences of the Faustian bargain for motorists. I already have noted that car ownership meant a diversion of time away from social functions and responsibilities. How much time? According to questionnaire data from 1977, car owners spent an average of 162 hours a year on looking after their cars.³⁹ This averages out to be approximately a half hour per day. It does not include time spent driving or sitting in a stationary car which may or may not have equaled the time people using public means of transportation spent but which in any case put them into direct physical (and if they so desired, verbal) contact with their fellow citizens. In an essay based on her observations of life in Ceausescu’s Romania, the American anthropologist Katherine Verdery discussed what she called the “étatization of time” that is, “the ways in which the Romanian state seized time from the purposes many Romanians wanted to pursue.” Many were common to state socialist societies including the USSR, and among them was the irregularity of public transportation, which required villagers to “wait for hours in the cold, or end by walking six to eight kilometers to the train station.”⁴⁰

Verderey points out that the fuel shortage, created by the state’s determination to maximize exports of oil, lead to such measures as prohibiting (from 1984) the use of private cars for most of the winter.⁴¹ What I am suggesting in the case of the Soviet Union is that something of the reverse process, a “de-étatization of time” occurred. It too was part of the Faustian bargain. As the number of car owners increased, reaching some ten million by 1985, so did the time they aggregately spent engaged in filling up the tank, obtaining and changing oil and spark plugs, performing minor mechanical repairs, and other tasks that might be thought of as “man-machine” encounters. Those who lived in parts of the country where the winters are severe but who nonetheless drove their cars all year round had to put in extra time round the clock. As one informant told me, “I had to warm up the car before going to sleep, get up at 4:00 am to do it again and once more at 8:00, just like feeding a baby.” Such “man-machine” time was essentially private in the double sense of being out of public view and individual as opposed to collective.

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Cited in Julian Pettifer/Nigel Turner: *Automania, Man and the Motor Car*, Boston 1984, 30; For a compendium of reminiscences about Brezhnev’s fondness for cars and fast driving, see Leonid Brezhnev v vospominaniakh, razmyshleniakh, suzhdeniakh, ed. by V. Shelud’ko, Rostov na Donu 1998, 108-117.

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A. Arak: *Ispol’zovanie avtomobilei lichnogo pol’zovaniia*, in: *Voprosy ekonomiki* (7) 1978, 134-136.

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Katherine Verdery: *The ‘Etatization’ of Time in Ceausescu’s Romania*, in: Katherine Verdery: *What Was Socialism and What Comes Next?*, Princeton 1996, 39-57 (quotations at 40, 47).

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Ibid., 47.

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Donald D. Barry/Carol Barner Barry: Happiness is Driving Your Own Moskvich, in: *New York Times Magazine* (April 10) 1966, 48.

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Kazbek Izmagilov/Staniislav Malozemov: *Roskoshnyi avtomobil': povest'-fel'eton i iumoristicheskie rasskazy*, Tashkent 1984, 105-06; see also Likhodeev, *Ia i moi avtomobil'* 56.

Not all the time that motorists spent with their cars, however, was spent alone. I need only cite the extensive use of private cars as taxis. This practice distinguishes ownership of cars from that of refrigerators, televisions and other durable objects of Soviet modernity. Let us return to the persecuted, Zaporozhets-driving engineer. Did he just happen to encounter a pedestrian late at night and generously offer him a ride to the Kiev Station, or did he negotiate a price for his services? If it was the latter, he would have crossed the line dividing “personal” from “private” property because he was using the car to obtain – in the eyes of the law – “unearned income” rather than for his own personal needs or those of his family. According to an intrepid American couple who “studied the Soviet automobile industry closely since a visit to Russia in 1961-62,” “large numbers of Soviet motorists have (. . .) [been] using their cars for various illegal activities, like driving out to the country and stealing cabbages from collective farms [and] hiring one’s car out for taxi service or buying up scarce foods.”⁴² If this was known to American visitors, it was no secret to the police. Still, if not entirely hidden from public view, picking up passengers can be considered part of the process of “de-étatization” in that it did not involve the mediation of state institutions.

As far as car maintenance was concerned, surely one of the unintended, though in retrospect not surprising, consequences of the bargain the state offered to car owners was that it provided an additional opportunity for male bonding. Those 162 hours a year generally were not spent with one’s spouse or sweetheart but rather, if anyone, mechanics, parts suppliers, or fellow car owners, all of whom tended to be men. In a society where public information was plentiful except the kind that one wanted or needed to know, the location of a consumer item in short supply – which meant just about any item – could be learned most readily by word of mouth. If foodstuffs and furnishings were the province of women, then items related to cars tended to be male terrain. These man-to-man encounters found their way into Soviet literature such as the following excerpt from a short story from the mid-1980s: “Everything changed. Automobiles began to weigh on the brain. Take the newspaper – they write only about cars. Turn on the television – they only show auto factories. (...) We gather for March 8 [International Women’s Day], but do you think we talk about women? The men smack their lips, and even before swallowing their food, continue a conversation about changes in traffic regulations (...). At work its worse. I go out to smoke and socialize. Start a conversation about chess or football. No sir! They talk, gesticulate, and argue about brakes, coasting, the technical inspection (...). I start to tell Ivan Burov in confidence that Mariia Petrovna from the technical department has put on weight regardless of the lack of a husband, and he says: Maybe she’s got wheels so that she can find a husband.”⁴³

As for the spatial dimensions of motorization, most obviously, the increased density of automobile traffic spurred road construction in and around urban areas. Moscow's MKAD, subterranean throughways in other parts of the city and in other cities, were among the high-profile projects of the 1960s and 1970s. Less obvious but to me more interesting were the smaller-scale – but aggregately enormous – appropriations of space. I am referring to the metal boxes that began to sprout on unimproved land on the outskirts of cities in the 1950s and then encroached on the courtyards of apartment blocks all over. Earlier, I mentioned that these garages, large enough only to accommodate the car itself (and even then, not the biggest models), were resented by many car-less residents. At the same time, they and the spaces adjacent to them seem to have been refuges of sorts for car owners, places to which car owners gravitated in the evenings and on weekends to be by themselves, indulge in conversation or a bottle or two with friends, and otherwise socialize.

More work needs to be done on the gendered dimensions of space in Soviet society, but provisionally I would conclude that motorization provided men in the late Soviet era with a new alternative to the crowded conditions of apartment dwelling that partly explains their willingness to put up with the “torture” of owning a car.⁴⁴ The garages and other sites where car owners carried out maintenance were, in this respect, physical representations of their autonomy from the domestic arena within the distinctively Soviet “gender order”: The pin-ups on the walls were emblematic of male occupation (or even habitation), the garages' very unkemptness contrasting with the relative cleanliness of the conjugal dwelling space.⁴⁵

Having discussed the ideological environment for mass production of cars, car ownership, and maintenance and repair, I want to conclude with some observations about driving. These relate to “automobility,” a concept that John Urry and other British sociologists and geographers have articulated most recently. Automobility has been defined as “one of the principal socio-technical institutions through which modernity is organized.” It is also “an ideological or discursive formation, embodying ideals of freedom, privacy, movement, progress and autonomy.” But most of all, as Urry has written, automobility is an assemblage of specific human activities, machines, roads, buildings, signs and cultures of mobility encapsulated in the hybrid notion of the “car-driver.”⁴⁶

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“In Russia, they say that owning a car brings joy twice in an owner's life - when it is bought and when it is sold. In between there is only torture.” Pettifer/Turner, *Automania* 167.

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On the Soviet “gender order” see Sarah Ashwin: Introduction: Gender, state and society in Soviet and post-Soviet Russia, in: *Gender, State and Society in Soviet and Post-Soviet Russia*. Ed. by Sarah Ashwin, London 2000, 1-29.

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See John Urry: *Sociology beyond Societies: Mobilities for the Twenty-first Century*, London 2000. Special issue on Automobilities, *Theory, Culture & Society*, (21/4/5) 2004; Steffen Böhm et al.: *Conceptualizing Automobility*, in: *Sociological Review* (54/1) 2006.

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I discuss these developments in:
Cars for Comrades.

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Tim Edensor: Automobility and
National Identity: Represent-
ation, Geography and Driving
Practice, in: Theory, Culture &
Society (21/4/5) 2004, 101-20
(quotation at 108).

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GAI, Gosudarstvvennaia
avtoinspektsiia, soviet street
police, GAI-shchniki, police men.

To date, automobility has been discussed in reference to Western Europe and North America where its disruptive and contradictory effects have been most pronounced. Does the concept have any applicability to the USSR after 1945? I would argue that it does, but only partially. The mass production of cars which signaled the Brezhnev administration's abandonment of ideological objections to private car ownership was only partially reflected in the development of "roads, buildings, signs and cultures of mobility." Despite campaigning by *Za rulem*, such accoutrements of "car-driver" mobility as limited access highways, motels, dependable road clearance and repair, and a host of other features of "roadscares" taken for granted in the West remained rudimentary at best in the USSR.⁴⁷

And yet, if we are to take seriously the point that Tim Edensor has made – that automobility is "comprised out of a fluid matrix, yet one that is always situated in contextual conditions" – we must grant that even under the rudimentary conditions that prevailed until the end of the Soviet Union, indeed precisely because of such conditions, Soviet automobility existed. Edensor contrasts British and Indian motorscapes, pointing out that despite regional variations each is integral to the nation. As he puts it, "While shared understandings and collective inactions about place are often powerfully local or regional, a strong sense of national spatialization also persists."⁴⁸ In thinking about Soviet automobility, one would emphasize the little GAI stations and the ubiquity of GAI-shchniki⁴⁹ on the main roads leading out of the main cities; the general disdain for wearing seat belts; the punched-holes on one's license indicating infractions; the ubiquity of bribes to settle fines; the removal of windshield wipers from parked cars to prevent theft; the cross-traffic turns one makes on major intersections; the system for obtaining fuel; the predominance of women among gas station attendants, to mention but a few.

One would like to know which of these practices, integral to driving in the USSR, survived the breakup of the Union and whether they persist to this day, what their persistence tells us about Edensor's notion of "national motorscapes" and thus whether a bit of Soviet culture – driving culture – has been retained in the post-Soviet man and woman. <<

03

Luminita Gatejel

**The Wheels of Desire.
Automobility Discourses in the Soviet Union**

“Liudochka, marry me! We’ll show those chatterboxes how to live! I am 34 years old, energetic and I know how to make money. We’ll drive them in our personal automobile to the nearest junction. We’ll invite them to our four-room flat and make them feel comfortable in our bear skins. Did you just notice how shy and irresolute they are when they glance through our comfortable apartment? We’ll offer them cognac. You know that they can not even afford for themselves the shabbiest port wine. You we’ll wear such beautiful garments and jewellery so that their wives we’ll start fights (...).”⁵⁰

The author of these lines is a certain Vasilii Pankov from Kondopoga. Liudochka, to whom the letter was addressed, became famous through an article in the “Literaturnaia Gazeta,” the journal of the Soviet writers association. Besides the obvious literary themes the journal published also a series of articles concerning issues of everyday life. In one of the essays she embodied the typical women preoccupied just by the shallow world of consumption. Travelling in the same train coach as the author, she took only lively part in the conversation when for instance car types and apartment furnishings were mentioned. Apart from these points of interest she was considerably bored by the rest of the conversation. As a reaction to her attitude towards life several other Soviet citizens sent letters to the editorial staff. In some of them she was harshly criticized, in others pitied and in many more despised. But among the letters were even some who praised her outlook on life and of course the above mentioned Vasilii who proposed to her. This “spontaneous” reaction of the Soviet readers determined the editor Ivetta Knjasseva to have a fundamental debate over the true meaning of socialist consumption, published under the title: Rising expectations, but no consumerist thinking.⁵¹ Centred on the issue of consumption a multi-faceted debate over the “appropriate” and “deviant” socialist behavior patterns commenced.

If the reactions of the Soviet public were indeed that spontaneous, or if the whole debate was just artfully staged, makes no difference for my further line of argument. My article explores in depth the meanings ascribed to the phenomenon of consumption in the Soviet Union during the 1960s and 1970s. I will undertake this endeavour focusing on one of the most prestigious artifacts of socialist consumer culture, the automobile. Much like in the capitalist world, the socialist car represented one of the top technical achievements and it was seen as a symbol for rising living standards. The case of the automobile allows for insights into the socialist consumption planning, organisation of everyday life, and leisure time. Being the proud owner of an automobile was also a sign of social distinction; the car was an artifact highly valued for signaling publicly one’s political privileged status.

How did the automobile fit into the broad context of the Soviet consumption debate of the post-Stalin era?

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Iveta Knjasseva: Wachsende Ansprüche aber kein Konsumdenken, in: Sowjetunion Heute (4) 1975, 24 -25, here 24.

_ 51
Ibid. 25.

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David L. Hoffmann: *Stalinist Values: the Cultural Norms of Soviet Modernity, 1917 – 1941*, Ithaca 2003, 119.

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Ibid. 125.

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Sheila Fitzpatrick: *Becoming Cultured: Socialist Realism and the Representation of Privilege and Taste*, in: *The Cultural Front: Power and Culture in Revolutionary Russia*, Ithaca 1992, 216 – 237, here 235.

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Hoffmann, *Stalinist Values* 140.

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Julie Hessler: *A Social History of Soviet Trade: Trade Policies, Retail Practices, and Consumption, 1917-1953*, Princeton 2004, 223.

_ 57

Fitzpatrick, *Cultural Front* 230.

_ 58

Sarah Davies: *Popular Opinion in Stalin's Russia: Terror Propaganda and Dissent, 1934-1941*, Cambridge 1994.

_ 59

Lewis Siegelbaum: *Cars, Cars and More Cars: The Faustian Bargain of the Brezhnev Era*, in: *Les Actes du GERPISA (39)* 2005, 171-182, here 173f.

To answer this question we must first take a step back and follow the overall evolution of the Soviet consumption discourse. Ever since its dawn the Soviet revolutionary state was challenged by the dilemma how to come in terms with two conflicting issues: the revolutionary tradition of asceticism and the socialist promise of future material prosperity.⁵² The revolution and the devastating years of Civil War strengthened the general sublimation of one's own desires for a higher goal. After a short economical stabilisation in the NEP period, the first Five Year Plan (1928-1932) with its rapid paced industrialization and the turmoil of collectivization meant further cut backs into the material conditions of the population who was already living on an existential minimum.

With the Second Five Year Plan (1933-1937) a new concept of socialism was envisioned by the Stalinist regime, one in which the material well being of the population was put forward. The "Life has become more joyous" – campaign, called so after Stalin's speech at a Stakhanovites meeting in 1935, depicted socialist life in images of abundance and material happiness.⁵³ But it was a material bliss still to come for the vast majority of the Soviet population. Therefore the consumption discourse was at its core an educational endeavour to prepare the Soviet citizens for the future material well being; it was supposed to teach them how to consume and live their lives in a cultured manner.⁵⁴ This meant that the New Soviet Man and Woman should learn to value fine clothing, live in cosy homes, shop like connoisseurs and drive in beautiful cars. Only for the new Stalinist elite – party officials and shock workers – material well being was not just a distant promise but a wish come true. They were picked out by the Stalinist state to embody new role models for the rest of the population, being presented as a living proof of how their humble existence would turn one day.⁵⁵

The favours did not arouse admiration but were met by the masses in need with envy and hostility. While the vision of an abundant socialist gained the upper hand in the official discourse, the convictions of a Spartan and egalitarian socialism did not disappear but dispersed among the population. This popular communism propagated a radical egalitarianism and resented any privilege.⁵⁶

Among the most loathed items that exposed the status of the newly rich were automobiles. As Sheila Fitzpatrick points out cars represented the ultimate Soviet status symbol of that time.⁵⁷ These visible signs of wealth were often associated with enemy-discourses. In this popular opinion, driving one's car represented a clear sign of bourgeois lifestyle that survived the socialist transformation.⁵⁸ And as Lewis Siegelbaum has shown, owning personal cars meant standing apart from the socialist community and this association was to shape for a long time the collective perceptions of ordinary people, reaching as far as the 1960s.⁵⁹

With the 20th Congress of the Socialist Party (1956), unanimously depicted in historiography as the big post-war watershed, we must ask ourselves what survived of the Stalinist consumption discourse in the time beyond. At a superficial glance little has changed, we encounter the same dilemmas as in early years. The Communist Party program of the year 1961 promised perfect future happiness and material abundance to the Soviet people. A direct link between satisfying consumer demands and the legitimacy of the socialist rule was established. “The C.P.S.U. sets the historical important task of achieving a living standard in the Soviet Union higher than that of any of the capitalist countries (...). The demand of all sections of the population for high-quality consumer goods – attractive and durable clothes, footwear and goods improving and adorning the daily life of the Soviet people, such as modern furniture, up-to-date domestic goods, a wide range of goods for cultural purposes, etc., – will be amply satisfied. Production of motor-cars will be considerably extended to service the population.”⁶⁰

But the very same document was still committed to the socialist ideals of asceticism and modesty. The Moral Code of the Builders of Communism stated that “honesty and fairness, moral purity, simplicity and modesty in one’s social and personal life” were among the highest moral virtues belonging to the socialist self.⁶¹

But behind the steady phrases of the official discourse major changes had taken place in the realm of consumption. Conveying to the Soviet people the basic notions of “civilisation” – hygiene measures, table manners and shopping habits – has lost its political priority although this educational campaign was not considered a completed chapter. Soviet society was on the verge of a new challenge – that of mass consumption and politicians had to deal with several problems it posed to socialist ideology. The relative economic prosperity of the 1960s, drawn especially on the huge oil and gas reserves, contributed to an extension of the social categories that profited from the improved economic conditions. As a result a far larger category of citizens than in Stalin’s time had access to a better life. But this shift in the consumption regime was not only caused by economic reasons, it was brought about by a far more “democratic” conception of consumption in the Khrushchev era. Instead of small elites chosen to represent the socialist *kul’turnost’* manners, everybody could aspire to a plentiful socialist way of life. New was also the technological revolution that spread technical items among the Soviet population. Vacuum cleaners, refrigerators and electrical kitchen devices made their way into Soviet homes. And again a large scaled promotion brought these items near to the public, recurring to the same discursive patterns as the Stalinist *kul’turnost’* campaign.⁶² It seemed that this would smooth the way for the acceptance of the motor car as a personal item. But the transition from the auto-

⁶⁰ Nikita Khrushchev: Report on the Program of the Communist Party of the Soviet Union, 17.10.1961, New York 1961, 85.

⁶¹ Programma KPSS, section V, part 1, 1961, 2.

⁶² Susan E. Reid: Cold War in the Kitchen: Gender and the De-Stalinisation of Consumer Taste in the Soviet Union under Khrushchev, in: Slavic Review 61 (2) 2002, 212-252, here 229.

⁶³
RGANI, f. 5. op. 42. d. 99. ll. 1ff.

⁶⁴
Ibid. l. 9.

⁶⁵
Stephen Lovell: *Summerfolk: a History of the Dacha, 1710 – 2000*, Ithaca 2003.

⁶⁶
Lewis Siegelbaum: Introduction, in: *Borders of Socialism: Private Spheres in Soviet Russia*, New York 2006, 1-21, here 4.

⁶⁷
RGANI, f. 5. op. 42. d. 99. l. 59.

⁶⁸
Ibid. d. 99. l. 65; d. 103. l. 6.

mobile as a gift awarded by the state to its loyal citizens to a general available mass production good was not as straightforward as it might first seem. Not only ordinary people who were exempted from the right to use a car, but also Soviet policy makers had their fair share of doubts concerning personal owned cars.

Subsequently the main contentious issue with reference to cars in the 1960s was whether cars should be collectively used or personally owned. The Khrushchevian welfare program included a personal apartment, but no personal automobile that went with it. The general line of policy was taken over from his predecessors; specific categories of citizens were entitled to use cars, distributed to them by the state, to take care of their job's requirements but in most cases also to use them for personal purposes. The favoured categories were as expected high party officials, administrative personnel in ministries and state organisations, but also specialist who worked in kolkhozes or on construction sites.⁶³ If we are to take the example of the academicians, also a highly privileged professional category, an all around welfare package was put at their disposal. A car, in most cases with a chauffeur, was attending to their services at work and drove them in their spare time to their dachas. The car and the dacha were gifts awarded by a caring state that envisioned a complete welfare program to watch over the health of the academicians.⁶⁴ It looks like the two items had a symbiotic relationship, because quite often a dacha without a car was of little value, lying far from the public bus routes. Besides jostling in overcrowded busses did not fit to the idyllic picture the dacha occupied in the Stalinist imaginary.⁶⁵

Analyzing the retailing practices regarding automobiles, the main difficulty lies in determining the exact status of automobiles or to establish the exact purpose for which they were used. To understand better the ideological debate over the usage of cars we must keep in mind that the very term for private was erased from Soviet dictionaries. The corresponding term for public (*obshchestvennoe*) was replaced by the word personal (*lichnoe*).⁶⁶ In the late 1950s no clear distinction was made between a work car (*dezhurnyi avtomobil'*) and a car for personal use (*legkovoï avtomobil' v personal'noe pol'zovanie*). Quite often we find the awkward combination of a "work car for personal use" (*sluzhebnyi legkovoï avtomobil' dlia lichnykh nadobnostei*).⁶⁷ Those who were given cars could also use them to take care of their personal errands (*a takzhe dlia poezdok po lichnym delam*).⁶⁸ But with the early 1960s started a time in which unlimited personal exploitation of work cars was limited. The first taken measures seem very lax, forbidding for instance that cars used at geological investigations to be driven in towns; or that those who received a car were not entitled to let somebody else drive with it. This is just an incipient development towards an explicit division between the two uses which is about to come a few years later.

However the rest of the population was depending on public transportation to get from one place to another. While the old Stalinist privileges were largely maintained, it was in the field of public transport where the new Khrushchevian emphases on collective measures became visible. To improve the miserable conditions of passenger transport or to compensate for inexistent public routes, taxi rides with subsidised fees were introduced to fill up several gaps in the transportation net.⁶⁹ But the epitome of the Khrushchevian mobility vision was the introduction or extension in larger cities of the so called *prokat*-system (loan-system), a complete program of car rental services, without drivers, to be used by the Soviet citizens according to their immediate needs.⁷⁰ This *prokat*-system will become a model for a socialist vision of a fair and economical usage of cars, shaping for many years to come the imagination of Soviet citizens. Apart from that, selling cars to the so called auto enthusiasts was no priority to the Khrushchev regime, although in the decision of the Central Committee of the C.P.S.U. nr. 772 from 1959 it was mentioned that old and new cars should be sold to workers only after a decision of the working committees, so that speculation should be avoided.⁷¹

In the Brezhnev era consumption turned into one of the most prominent bargaining chips between the socialist state and its citizen. The so-called “informal consumerist pact” between rulers and ruled promised to the latter a minimal level of welfare in exchange for political obedience.⁷² Vaclav Havel has called this the historical encounter between dictatorship and consumer society.⁷³ The production of goods in these countries was now supposed to satisfy the needs and demands of the population. Even if the so called consumerist turn in the Eastern bloc is attributed to Khrushchev⁷⁴, it was his successor Brezhnev who converted the former’s hasty decisions into a stable rule of power in which relative prosperity was traded for political stability. In the mid 1970s the automobile naturally belonged to long list of goods the state was willing to provide for the people, granting them material comfort. I quote from the speech of Brezhnev addressed to voters of the Bauman district in Moscow in 1974: “The industry has considerably increased the production and improved the quality of many mass consumer goods, among them domestic appliances, furniture and private motorcars.” Compared to the Khrushchev quotation above cars are not set apart from the other consumer goods anymore, the right to own them together with the other items was tacitly acknowledged. But how can this major change related to cars be explained?

With the change of regime in 1964 a new automobility conception was put forward. In a speech in front of the State Planning Commission (GOSPLAN) Kosygin, although not promising to every citizen a personal car, questioned the previous dominant assumption that by public and collective measures alone, Soviet society can be turned

– 69
RGANI, d. 103, l. 7.

– 70
Ibid., l. 7.

– 71
Ibid., l. 8.

– 72
Dietrich Beyrau: Die befreiende Tat des Wortes, in: Samizdat: alternative Kulturen in Zentral- und Osteuropa. Die 60er bis 80er Jahre. Ed. by Wolfgang Eichwede, Bremen 2000, 26-37, here 28.

– 73
Vaclav Havel: Versuch in der Wahrheit zu leben, Reinbek 1980, 26.

– 74
Susan E. Reid: Khrushchev Modern. Agency and Modernisation in the Soviet Home, in: Cahiers du Monde Russe, 47 (1-2) 2006, 227-268, here 231f.

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Aleksei Kosygin: Povyshchenie nauchnoi obosnovannosti planov – vazhneishaia zadacha planovykh organov, in: Planovoe Khoziaistvo 42 (4) 1965, 3-10, here 4.

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Nordica Nettleton: Driving Towards Communist Consumerism. AvtoVAZ, in: Cahiers du Monde Russe, 47 (1-2) 2006, 132-194, here 134.

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S. Starostin/G. Emdin: Sobstvennaia mashina: Blago ili bedstvie?, in: Literaturnaia Gazeta (38) 1970, 11.

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ibid. 12.

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Obsuzhdenie stat'i zakoncheno, in: Literaturnaia Gazeta (47) 1970, 10.

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In this respect the Soviet automobile world make no exception from the general trend. See Daniel Miller: Introduction, in: Car Cultures, Oxford 2001.

into a modern automobile society. He harshly criticized his predecessor Khrushchev for ignoring this vital segment of the local industry, admitting that the Soviet Union was still producing old fashioned car models that were already rejected by Western producers.⁷⁵ Radical measures were taken to improve Soviet automobile production. As a consequence the Moskvich-plant near Moscow was to benefit from the technological know-how of the French producer Renault. In the brand new town of Tol'iatki the automobile Zhiguli/Lada – a Fiat 124 licence – was assembled, doubling the number of automobiles issued.⁷⁶ The age of mass motorization was about to start in the Soviet Union. And mass motorization was merely one aspect in the emergence of mass consumption, leaving visible traces on socialist supply and distribution practices, as well as on consumption discourses.

Although the automobile was more and more at the disposal of the masses the ever increasing demand for new cars could not be stilled. Despite the homogenising effects of a higher living standard, characteristic for this period of time, owning an automobile was to remain a clear sign of social distinction. Until the end of the Soviet Union the automobile was to remain a privilege highly valued by its owners. The official discourse spoke of the automobile as a mass consumption good without going so far as stating that everyone should have the right to drive his/her own car (as it was for instance repeatedly asserted with the right to have a holiday). In this constellation the tension between the car as a privilege awarded by the state to its loyal citizens and a common good available to everybody was maintained. And the ill-will against private car owners did not cease either. Even as far as 1971 articles in the very same Literaturnaia Gazeta inquired whether the personal automobile did fit into socialist society. Several voices were raised in favour of the car rentals, as the only viable and economical system, overstating that private automobiles were polluting the air and dirtying the streets.⁷⁷ But most of the writers supported the personal automobile as a modern means of transportation, reflecting the technological progress of the Soviet Union.⁷⁸ The comment of the editorial staff is extremely clear: "Our country has already taken the road towards a wide-ranging automobility and this is an objective law of social and technical progress, to ignore this is no sensible action."⁷⁹ At this time the political acceptance of private automobiles reached also the population. If there weren't the queues every Soviet citizen could have bought a car without fearing the resentment of his community.

With "class" differences diffused, another dichotomy became visible with the increased number of personal automobiles; subversion of the socialist equality paradigm was also visible when talking about gender relations. The world of the auto-

mobile was a masculine terrain in the otherwise so feminine world of consumption.⁸⁰ And this was emphasised by the way in which cars were depicted in illustrated magazines. Advertisements were addressing directly to men, the scenery around the cars was conceived as if a male viewer was admiring them. Men loved, drove and repaired their cars. One of the few occasions where the whole family met in or around the car was during holidays. But the car turned only apparently into a common family property because clear gendered attributions were also ascribed to everyday practices while being away from home. Caricatures exposing this did not make the gendered attributes vanish, they just show how widely spread and easily recognisable this stereotyped behavior was. In depicting for instance a family on a camping place the man is shown repairing the car while the woman is cooking, washing and attending the children.⁸¹

Yet in another realm of the consumption discourse another fierce ideological battle was fought in the 1970s. Besides mediating between visions of abundance versus asceticism respectively between individuality and collectivism the socialist consumption discourse was overtly dissociating itself from the Western consumerist behavior. And this happened although in taking the road towards a consumer society the Soviet Union was openly emulating the West. The reception of the Western consumer world fluctuated between a late imitation and a harsh disapproval of the throw away society. Distinction patterns and acquisitive consumption were at the same time accepted and rejected. To escape from this vicious circle socialist policy makers spoke of socialist consumer culture as a counterpart to the Western consumer culture. Socialist specificities were aggressively put forward. Taking the case of the automobile further I will analyse some discursive mechanisms that put some distance between the two consumption regimes.

A fixed formulation that accompanies almost every assertion about socialist consumption links the process of acquiring goods to production mechanisms. While in Western consumer cultures the degrading mechanised production process is separated from the magic world of consumption, socialist consumption understanding emphasizes the connection between the two stations in the commodity chain. It is in the field of consumption one of the few visible commitments to the Moral Code of the Builders of Communism: Whoever does not work does not eat.⁸² The proximity between produced and consumed goods is shown exemplarily in the press using standardised biographies of workers or workers' families. From the enormous body of employees very few of them are named, to represent in a nutshell the glory of the Soviet people. What might seem a random choice was very carefully pondered; the representatives had to be young, energetic and coming from various regions of the Soviet Union; women get the same consideration as men and all of them could show a long list of distant

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See for example various numbers of the magazine *Ogonek*.

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Programma KPSS, 2.

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Roger Post: Parlo italiano in der Wolgasteppe, in: DSF Journal 6.1967, 14.

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TsAGM, O ser'eznykh nedostatkakh v rabote po otboru i vospitaniiu kadrov voditelei legkovo taksi. f. 521. op. 1. d. 646. l. 3.

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RGAE, Postanovlenie. Biuro MGK KPSS i Ispolkoma Mossoveta: Meropriiata po povysheniiu bezopasnosti dvizheniia transporta i peshekhodov, 29.05.1970, f. 465. op. 1. d. 843. l. 71.

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Ibid. l. 73.

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Knjasseva, Wachsende Ansprüche 25.

places were they helped build communism. The building of the VAZ automobile plant in Tol'iatti made the headlines in the automobile sector. Accounts of the construction process were closely intertwined with the promise of future material bliss for every Soviet citizen. "It is the same as on all other construction sites in the SU. People come from everywhere, people with different nationalities. Gabriel Vassiliev, the party leader is a Russian, Kassim Issianov, the trade union leader is Tatar, the chief manager is Armenian and the chief engineer is a Jew. Nina the chemical engineer works together with colleagues from the Ukraine and Turkmenistan." And further on: "Nina and Evgenii (her husband) won't have to wait long anymore for the Soviet version of the Fiat 124. Starting with 1970 the new plant in Tol'iatti will produce 600.000 of these world-wide cherished automobiles a year (...)." ⁸³

Socialist consumer culture's self-image even in late socialist times was to remain one of a rational and orderly form of consumption. Driving socialist cars was different from driving a capitalist one. They were supposed to be first and foremost a means of transportation and not a distinction mechanism. For this reason socialist automobiles should last a lifetime. The Soviet Union was building solid cars that could withstand harsh weather conditions and master every road condition for many years in a row. Teaching the Soviet citizen how to drive their cars in a "socialist" manner took up the Stalinist *kul'turnost'* paradigm. It moulded the New Soviet Man and Woman behind the wheel to match the requirements of a socialist humanism. These social engineering measures went under the guise of a benevolent educational campaign that showed drivers how to become cultured. Professional drivers should serve clients in a cultured manner, meaning that besides being polite and dressed appropriately, they should drive carefully and respect the other traffic participants.⁸⁴ The individual car owners should also drive attentively avoiding car accidents. The battle against car crashes represented the ultimate goal in a peaceful socialist society.⁸⁵ Soviet educators were also teaching pedestrians how to behave appropriately while crossing the streets. It was also emphasised that specific educational efforts should be directed towards protecting children and teenagers from possible traffic dangers.⁸⁶

Coming back to the consumption debate in the Literaturnaia Gazeta we find at the end of the article the words of an expert, member of the Soviet Science academy. He says: "The theory of scientific socialism rejects the two extremes: the extreme poorness, the asceticism, but also the petit bourgeois possession cult."⁸⁷ So the Soviet citizens were encouraged to enjoy the rising living standard, but were warned about capitalistic consumerist attitudes. But what was the exact difference between the two behaviors? When exactly did appropriate forms of consumption turn into deviant? It seems that no clear solution can be found. Such problems were solved on the spot,

but no fundamental answer could be given anymore. At the first gaze the debate in the *Literaturnaia Gazeta* followed the typical scenario of a socialist public discussion. The starting point represents a controversy, in our case the consumerist attitudes of Lyudochka. In a second step the Soviet public is invited to adopt a position about the matter. And in the end an expert or several are invited to deliver to everybody the right evaluation, or the appropriate attitude. This meta-discourse should comprise the canonical interpretation of socialist dogmas. In our case the auctorial voice was not able to establish the consensus anymore. The limits imposed to this enumeration concerned the degree in which the two elements are combined, but this did not solve the inherent contradiction. And this ambiguity runs like a red thread throughout the entire socialist consumption discourse until the end of the Soviet Union.

So shaping the socialist consumption discourse meant facing the same moral dilemma over and over again: how to harmonize the ascetic tradition of revolutionary combativeness with images of an abundant socialist society. With the flow of time different political strategies were used to deal with this contradiction. The Stalinist state picked out small groups of privileged citizens – mainly party officials and shock workers – to portray the Stalinist modernity in everyday life. This campaign in which the latest achievements in the consumption sphere were depicted became entangled with a strong educational endeavour that exemplified how to behave in a cultured manner. They were chosen to represent in a nutshell the New Socialist Person and show to the less fortunate the way in which their life will turn out one day.

Khrushchev's reforms laid an emphasis on collectivist measures in the retail system of consumer goods. A more "democratic" outlook on consumption matters coupled with a steady economic growth gave access to a better living to a broader section of the Soviet population. In the first years of the Brezhnev era where we have the highest production and consumption in the history of the Soviet Union consumption turned to the most prominent bargaining between those in power and the population. Although the nature of the consumption phenomenon changed after the 20th Congress of the Communist Party the outline of the Stalinist *kul'turnost'* program was to remain the same. The technique of conveying the right consumption message to the population recurred to the well known phrases of the socialist cultured behavior. While more and more domains of mass consumption turned cultured the Socialist policy makers could constantly exercise their control over the deeds of the common people. Thus, socialist consumption discourses were mediating between bargaining motives and educational campaigns.

The automobile occupies an atypical place in consumption discourses. Driving chronologically along socialist consumption debates one perceives the changes and shifts in discourse with a time lag. Especially the inconsistency in dealing with questions of consumption is accentuated when dealing with cars. The cars exposed the new acquired wealth of the Stalinist elite while at the same time it was the focal point for the revolt of the disfavoured. To make the automobile compatible with the general outline of the socialist consumption discourse it had first to be “purged” of its petit-bourgeois associations. The car rentals in the late 1950s on the one hand gave common people an example of a fair usage of cars, on the other hand the insufficient material basis restricted the access of the masses to automobility. The car retail system was to remain on the whole untouched by the Khrushchevian egalitarian viewpoint on consumption. Regarding car possessions, a strict demarcation line parted those who had access to a personal car from those who had not, until the Kosygin reforms in 1965 put special weight on developing the automobile sector. Along with the official policy also the attitude of the general public towards cars changed. The car was welcomed among a long list of items the socialist state put at the disposal of its citizens. And by making use of the *kul'turnost'* paradigm the very same state explained to them how to behave in a right way in and among cars. But because the demand for new and old cars outnumbered the production rates owning a car was to remain until late socialist times a highly valued privilege although with a less politically explosive character. <<

04

Maria R. Zezina

**The Introduction of Motor Vehicles on a Mass Scale in the USSR:
from Idea to Implementation**

The idea of introducing motor vehicles on a mass scale arose in the USSR long before it became possible to do so in reality. Car factories did not even exist when the prospects for a fast extension of the motor industry started to be widely discussed, a car magazine for the general public started to be produced, and an organization was created to facilitate the spread of motor vehicles and the development of a road network. This article will attempt to trace the transformation from conception to practical implementation of the idea of introducing motor vehicles. It will look at how people's ideas of the possibility of car ownership changed, and what it meant for a Soviet citizen to own a car at a time when there was a deficit of motor vehicles, and when servicing and repairs were not guaranteed.

Car production in Russia on foreign licences started before the revolution in 1910. Only 451 cars, a few dozen trucks, and a handful of specialized vehicles made to order had been produced by 1915.⁸⁸ An acute lack of equipment during World War I, including motor transport, forced the government to organize the rapid construction of five new car factories. But the revolution and civil war disrupted these plans. The Soviet government acknowledged that it was “fundamentally vital to establish car production in Russia on a mass scale”:⁸⁹ This decision was taken by the Commission for Re-establishing Large-scale Industry in March 1922, under the leadership of V. V. Kuibyshev. At the beginning of 1926 a government commission chaired by I. E. Rudzutak determined that the number of motor vehicles needed to increase to 40,000 by 1929-30, i.e. to more than double.⁹⁰

The idea of introducing motor vehicles on a mass scale began to be widely promoted among the public. The Avtodor society was set up in 1927 (and existed until 1935). By 1929 it had 226 local branches with a membership of around 160,000 people. The largest branch of Avtodor, with 35,000 members, was in Moscow.⁹¹ The society's aims were to facilitate road construction, promote motor transport, and work for the organization of domestic car production on a mass scale. The journal *Za Rulem* (“Behind the wheel”) was first published in 1928, and it became the first motoring magazine for the general public (the editor-in-chief was V. Osinskii). For hundreds of enthusiasts, the motor vehicle was a dream, and a symbol of the bright socialist future. The number of Avtodor members and the circulation of the magazine and reference literature about motor vehicles were several times higher than the number of motor vehicles in the USSR. In an editorial in the first issue of his magazine, Osinskii lamented: “If we could only give every Avtodor collective even one little second-hand, inexpensive car, the scale of the movement would be simply uncontrollable. But alas! So far there aren't any cars at all.”⁹²

⁸⁸ Nikolai V. Adefeldt: *Istoriia Moskovskogo avtozavoda imeni I. A. Lichacheva*, Moskva 1966, 18.

⁸⁹ *ibid.* 103.

⁹⁰ *Za rulem* (1) 1928, 3.

⁹¹ *ibid.* (2) 1929.

⁹² *ibid.* (1) 1928, 1.

⁹³ Spravochnaia kniga avtodorovtsa. 2 izd., Moskva 1930, 181-182.

⁹⁴ *ibid.* 186.

⁹⁵ Za rulem (1) 1928, 22.

⁹⁶ *ibid.* 26-28.

The plan to increase the number of motor vehicles, as instructed by Rudzutak's commission, was not carried out. By January 1929 there were around 18,000 motor vehicles of 308 different models in the USSR. Of these, 8,033 were cars, which is a ratio of one for every 8,500 people. Meanwhile, in the USA, Canada and Western Europe, motor vehicles were becoming part of people's everyday life. In the USA one motor vehicle was produced for 4.9 citizens. In Canada, Australia and New Zealand the figure was one for every 8 - 10, and in England, France and Denmark it was one for 32 - 37 inhabitants.⁹³

Out of the 18,000 motor vehicles only around 1,500 were relatively new, i.e. they had been in use for less than three years. Over 60 per cent of motor vehicles were more than seven years old. With the wide range of models, there were not enough spare parts, and it was very difficult to have repair work done. Only 72.4 per cent of the total number of vehicles was actually in use. Private motor vehicles were a great rarity in the USSR. Of all motor vehicles, 70 per cent were used for purposes of production, 22 per cent were used by Soviet and party officials, and only 8 per cent were for private use.⁹⁴ A well-worded testimony to the condition of motor vehicles is the title of an article by V. B. Shklovskii: "Junk on wheels." According to the author, when he traveled by car, he was accompanied by not only the driver but a boy who topped up the petrol in the carburetor from a bottle. "We travel in cars with broken gear boxes, switching from first gear straight to third," wrote Shklovskii. "We travel in cars with leaking radiators (...)."⁹⁵ The well-known journalist M. Koltsov recalled a trip he took around Stalingrad Province with the chairman of the Council of People's Commissars of the USSR, A. I. Rykov. A 1912 Mercedes-Benz was provided for the head of the Soviet government – the best car to be found in the province. Its tires burst en route, and to get to its destination a local blacksmith made wooden rims for the wheels.⁹⁶

This grim reality did not eclipse the dream of a time when hundreds of shiny new cars would streak along the highways of the USSR. A visible manifestation of the future could be seen in the photographs and material printed in the popular magazine. New, technically perfect motor vehicles, giant car factories, multi-storey garages, multi-level road junctions – all these things already existed abroad and, it seemed, were bound to become reality in the USSR in the near future, too. Public debates about the prospects for the large-scale introduction of motor vehicles gathered massive audiences, and publications on the subject drew a strong wave of response. How did people see motor vehicles and the paths for their creation? As the most numerous and least sophisticated potential users, peasants took a practical approach to the new means of transport. G. I. Gorbachenko from the village of Gorbatovka in

Polotskii District wrote in *Za Rulem*: “We need a motor vehicle that can be used to transport rye, wood, milk, vegetables and fruit to market, and so forth; (...) we should also be able to go visiting people in it; maybe it will be necessary to change the body of the vehicle, so it would be better if there were two bodies: one for everyday and one for special occasions. It should also be cheap.”⁹⁷

One of the leaders of Avtodor, E. A. Chudakov, believed that the only correct decision would be to go for the organization of domestic production, taking into account the experiences of the West. America’s experience, he said, showed that it were motor vehicles which led to the creation of good roads, and not vice versa. Under the conditions of a planned economy, both problems should be resolved simultaneously. He thought that a motor vehicle factory in the USSR should make a tried and tested foreign vehicle, which would be imported as separate parts and kits for finishing and final assembly. As domestic production developed, imported parts would be replaced with Russian ones.⁹⁸

As a temporary measure, V. Osinskii suggested taking advantage of the favourable conditions for importing American vehicles. Expanding production of new models at the Ford factory had led to a fall in the price of second-hand vehicles. Osinskii reckoned that for 6-7 million rubles (around 3.5 million dollars) it would be possible to buy around 10,000 lightweight lorries and cars such as Fords and Chevrolets over one or two years, and divide them among branches of Avtodor.⁹⁹ An agreement was made with Ford, not for cheap second-hand vehicles, but rather for the delivery of 74,000 new sets of motor vehicle parts over four years, for assembly in the USSR. This meant that the number of motor vehicles should double in the space of two years. Gosplan (the State Planning Commission) determined that over five years the country would need a total of 100,000 cars and 350,000 trucks and specialized vehicles.¹⁰⁰

Although they used American technical experience, the Soviet leadership rejected the western model for the mass introduction of motor vehicles that was based on the development of personal motor transport. In the 1920s and 1930s, motor vehicles had become part of everyday life for ordinary Americans. Unlike the capitalist West, the plan in the Soviet Union was to use motor vehicles mainly collectively. *Za Rulem* magazine wrote: “You probably can’t easily explain to a foreigner why hundreds of thousands of workers and peasants who will never own their own motor vehicles are excited (...).”¹⁰¹

There are a number of reasons why the USSR went for a mainly collective use of motor vehicles. A private vehicle was very expensive, and was not affordable for the

⁹⁷
ibid. 35.

⁹⁸
ibid. 4.

⁹⁹
He described this more than once: see *Za rulem* (1) 1928, 11 and (2) 1928, 2.

¹⁰⁰
Za rulem (13) 1929, 8.

¹⁰¹
ibid. (3) 1928, 15.

¹⁰²
V. V. Maiakovskii: *Sobr. soch.* v 12
tt. T. 5, Moskva 1978, 369.

¹⁰³
Za rulem (5) 1928, 24.

¹⁰⁴
ibid. (2) 1928, 45.

average Soviet citizen. Just as before the revolution, a motor vehicle was an item of luxury, associated with a bourgeois lifestyle in the eyes of the public. It is no coincidence that V. Maiakovskii published a verse entitled “An answer to future gossip” after buying a car in Paris with his own money. The poet seems to justify himself:

“I can’t avoid the awful gossip.
Well, please forgive me
For bringing a Renault back from Paris
Instead of perfume or a tie.”¹⁰²

It is worth noting that in 1928 such a purchase required special permission from the USSR’s People’s Commissariat for Internal and External Trade. The prospects for the mass introduction of motor vehicles were above all tied to strengthening the country’s defense capacity. The Soviet motor industry therefore focused on the production of trucks, which were widely used to transport people as well as goods. Unlike in the West, where most drivers were amateurs and private car owners, and repairs were carried out by professional motor service personnel, in the Soviet Union professional drivers dominated, who had to rely on themselves in the case of breakdown. The task of preparing the masses of amateur drivers was given to Avtodor. As a *Za Rulem* correspondent wrote: “The ability to drive a motor vehicle, care for it and identify faults, needs to become as usual as riding a horse or a bike.”¹⁰³

Avtodor worked on the basis of public enthusiasm and the limited means of its members. Avtodor members collectively purchased second-hand vehicles, most often rejects, for collective use. The Avtodor group at the Ogonek publishing house bought a Ruso-Balt car on credit for 600 rubles. For this, share bonds of 10 rubles each were issued, with instalments spread over five months. Each person to voluntarily buy a share became owner of one seventieth part of the car, and had the chance to learn to drive it. Before taking the wheel, the shareholders repaired the car by their own efforts, thereby acquiring the necessary technical skills.¹⁰⁴ There was a lack of spare parts, so often shared vehicles did not have headlights or indicators, and constantly broke down or got into accidents. Far from every Avtodor group had the possibility of buying even one vehicle among several dozen people. Some couldn’t get together the necessary amount of money, and the reserves of motor vehicle graveyards quickly ran out. Enthusiasm fell, and many Avtodor branches disbanded.

Theoretically, a member of Avtodor could get a motor vehicle for personal use by winning it in a lottery. The draw for the first Avtodor lottery was held in August 1929. Up

for grabs was one car with a year's supply of fuel and lubricants (there was the option of a tractor or 10,000 rubles instead), and 20 foreign vehicles worth 1,500 rubles each. Judging by the results of the draw, the chances of winning a personal motor vehicle were illusory. According to the magazine, the main prize at the first draw went to a young worker, B. A. Mozharov, but he received money instead of a car, which he immediately gave away as a loan for industrialization and to build a tank.¹⁰⁵

Private motor vehicles remained a great rarity before the war. People rarely bought them, and more often they were awarded by the state for special services. In his memoirs about the 1930s, M. German wrote: "They were a foreign wonder, the cars of those days. The domestically produced ones were an object of quiet pride. They reflected not so much wealth (what wealth was there back then!) as a mysterious and ominous power, an air that surpassed the usual blessings."¹⁰⁶

Meanwhile, the attitude towards individual motor transport gradually changed. An article by G. Zimelev entitled "The small engine motor vehicle" was published in Pravda in 1938 by way of a discussion. In it, Zimelev put forward the possibility of producing a low-budget motor vehicle for the masses.¹⁰⁷ The article provoked a huge reaction. Chief engineer at Glavavtoprom M. Sarnakov wrote that such a car was needed in many sectors of the economy, on collective farms, and would be irreplaceable for personal use.¹⁰⁸

From 1947, cars started to be sold to private customers. The number of cars rose quickly. Trophy cars appeared. Domestic production of cars increased. Whereas in the year before the Great Patriotic War, in 1940, 5,000 cars were released, in 1950 that number was 13 times higher at 64,600, and in 1955 it stood at 107,800.¹⁰⁹ Domestically produced models such as the Pobeda (Victory), Moskvich (Muscovite) and Volga started to fill the streets of Soviet towns.

The word *avtoliubitel'* appeared during the 1950s, meaning someone who drove his own car, as opposed to a professional driver or chauffeur. The English translation "motor-car enthusiast" has a slightly different meaning. An *avtoliubitel'* is not simply an enthusiast, but a car owner. However, the English translation conveys the essence of an *avtoliubitel'* perfectly. An *avtoliubitel'* had to have exceptional enthusiasm in order to save money for years for his expensive purchase, and spend his spare time on servicing and repairing his four-wheeled friend. A car almost became part of the family, demanding constant care and expense. Pet names were thought up for them, and jokes about them were told.¹¹⁰

¹⁰⁵ *ibid.* (17) 1929, 32.

¹⁰⁶ M. I. German: *Slozhnoe proshedshee*, St. Petersburg 2000, 34.

¹⁰⁷ Pravda, June 3, 1938.

¹⁰⁸ *Za rulem* (14) 1938.

¹⁰⁹ *ibid.* (4) 1960, 10.

¹¹⁰ Here is an example of a typical joke: A woman complains to her friend, "My husband has a mistress. He spends all his salary on her, spends all his time with her. He's with her now. Look out of the window." In the yard, the husband is lying under a car.

¹¹¹
Za rulem (4) 1956, 21.

¹¹²
ibid. (7) 1960, 33.

On the one hand, purchasing a car opened up new possibilities for the car owner, but on the other hand it created many new problems. The humorous short story by I. Ostrovskii titled “My own car,” which was published in *Za Rulem*, provides a typical example.¹¹¹

The main character, an accountant called Ziablikov, having made it through a waiting list that was “unbelievably long, like [fairy-tale character] Chernomor’s beard” to get a Moskvich, had at last become an *avtoliubitel’*. His life changed radically. He started to get up earlier and go to bed later than everyone else, in order to have time to give all his neighbours, relatives, and colleagues a ride. Of course, the situation in the story is exaggerated, but the problem was a real one. Personal motor transport did not fit in with the collectivist basis of life. At a time when it was rare for a family to have their own apartment, and a separate hotel room was a luxury, when the bathroom, toilet and kitchen were shared with neighbours, it seemed wrong for a car to serve one person.

Car repairs were another problem. As well as able hands, good connections were required to get hold of spare parts. Here are some typical complaints taken from songs by I. Vizbor. After buying a Pobeda from a “happy” car owner, utter disasters begin to unfold, “motor-happiness turns out to be an illusion.” There is no garage, and the car constantly breaks down. The song’s hero uses his wife’s sewing machine for spare parts for the car (Pobednaia pesenka – A little victory song, 1957). In another song, the hero procures two orders for fish, exchanges them for two tickets to the Taganka theatre, and only then does he get the parts he needs (Pesnia o naivnykh tainakh – A song about naïve secrets, 1979).

These comical situations had entirely real roots. In 1960 there were only seven technical service centres in Moscow, which were able to satisfy around a third of the requests from individual car owners. There was not a single car-wash for individual use. Many service centres lacked equipped premises. Service centres №3 and №5 were located in half-collapsing sheds, in which fire safety inspectors had prohibited any welding or painting work. There were not enough tools, and turnover of manpower was high.¹¹²

It was necessary to do everything yourself: washing the car, changing the oil and filters, adjusting the ignition and valve, tightening the chain, etc. It was rare to see a woman behind the wheel. The first *avtoliubitel’* generation consisted exclusively of men. Motor vehicles were known as a construction toy for grown-up boys. They were taken apart, put together again, and refitted. There was a special column in *Za Rulem* where car owners shared their experience of car servicing and fitting. Skilled amateurs constructed a space for baggage on their car roofs and adapted seats as places to sleep long before it started to be done in factories.

Despite all the difficulties, the number of car owners in the country rose quickly. However, the development of private motor transport did not fit in well from an ideological point of view with plans for communist construction developed by the party leadership. The move to communism presupposed the introduction of communal ways of organizing everyday life. During his trip to Vladivostok in 1959, the premier of the Soviet Union N. Khrushchev announced: “We want to establish a way of using cars that is different to that in capitalist countries (...) Here, cars will be used more rationally than they are by the Americans. We will develop shared fleets of cars more extensively, from which people will borrow cars when they need to make journeys.”¹¹³ At July 1960 plenary session of the Central Committee of the Communist Party of the Soviet Union, the decision was taken to develop communal ways of using electrical goods for everyday purposes. This concerned not only washing machines and vacuum cleaners, but cars as well. It seemed that a way to overcome the deficit had been found, and the problem of “cars for the masses” had been solved. Rental came to be seen as the most rational and promising way of using motor vehicles.

At the beginning of 1960 there were only a handful of car rental outlets in the country, but by September of the same year there were already hundreds of them. In Moscow alone, four new rental outlets were opened. However, waiting lists also grew. There were not enough cars. In 1960 there were 450 cars for 18,000 customers, i.e. one car for 40 people. The cars were old, and many had lain unused due to faults. New cars went to the state fleets or for sale, while the fleet of rental cars were made up of second-hand cars that had undergone major repairs. Thus, car rental did not get established in the Soviet period. The attempt to overcome the deficit of cars by using them communally had failed. The widespread introduction of the motor-car in the USSR came via the development of private transport instead.

Meanwhile, a wary attitude remained towards car owners as property owners. The word *chastnik*, or private trader, always carried a negative connotation. There was a widespread belief that it was impossible to buy a car with earnings from labour. The character Iurii Detochkin from E. Riazanov’s 1966 film “*Beregis avtomobilia*” (“Take care of the car”) is a hero of his time. The director explained where the film’s plot had come from: “We had both [Riazanov and fellow scriptwriter E. Braginskii] heard the story in various cities – Moscow, St. Petersburg, Odessa – of how some guy stole private cars from people living on dishonest, unearned income, then sold them, and gave the proceedings to children’s homes. People in each city said it had happened in their area. They said it had even been written about in such-and-such newspaper.” The scriptwriters searched for the newspaper, approached legal establishments for help, but could not find a trace of such a court case.¹¹⁴ The legend that had become so popular

¹¹³ *ibid.* (4) 1960, 10.

¹¹⁴ E. Riazanov: *Nepodvedennye itogi*, Moskva 1986, 44.

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Narodnoe khoziaistvo SSSR v 1980
g., Moskva 1981, 421, 408.

_ 116
Sbornik trudov pervoi vserossiiskoi
nauchnoi konferentsii "Istoriia
OAO 'AvtoVAZ': uroki, problemy,
sovremennost'", 26 - 27 noiabria,
Tol'iatii 2003.

among the people thereby became the basis for a popular film. The main character, who acts according to justice rather than according to the law, became loved by millions of viewers.

A new stage in the spread of the motor-car was linked to the start of work at the Volga Car Factory (VAZ) in 1970. By this time, the population's purchasing power had started to grow more quickly than the production of consumer goods. The amount deposited in savings accounts more than doubled between 1965 and 1970, and in 1970 it exceeded the stock of goods in the country.¹¹⁵ One of the tasks given to the new car factory was to reduce the pressure of the "burning" money that had accumulated among the population.¹¹⁶ The prospect of buying their own car was becoming a reality for many Soviet citizens.

The emergence of cars for the masses required a change to the whole system of car sales. The rules for selling cars that existed in the USSR had been established in the 1950s, and did not cater for mass sales. Sales were made according to orders placed in advance. A shop would tell customers in good time about the day that orders for cars would be taken and then take orders within the limits of the quantities they had been allocated. Long queues usually formed outside the shops on these days.

It was known from magazines and newspapers that the new car factory would start production at the end of 1969, and people were waiting for an announcement about the start of registration. An unofficial waiting list started to form in Moscow. Despite the fact that the Moscow car shop on Spartakovskaia Street hung up a notice saying that no-one would be registered on the waiting list for cars in 1969, each Saturday, in a square not far from the shop, certain people calling themselves representatives of the Voluntary Society for Support of the Army, Air Force and Navy (DOSAAF) registered people who wanted to buy a new car. The lists grew at a catastrophically fast rate, and reached the hundreds of thousands. There were many such unofficial "just in case" waiting lists that formed in those years. The reason was a message or rumour that some shop was supposedly getting in goods that were in deficit (furniture, carpets, domestic appliances). Lists were drawn up, and people showed no little determination to keep their place in the queue, which could disappear at any moment. Although the spontaneous lists were not recognized by shops, they helped with the organization of thousands of people who wanted to buy goods in deficit, and with maintaining order. *Za Rulem* received numerous letters from readers over satirical articles, which overflowed into a kind of remote consumer conference on the subject of how to organize the sale of cars. Suggestions reflected the ideas of the magazine's mass readership about principles of social justice.

Many readers believed that potential purchasers' merits needed to be taken into consideration. The idea of selling cars at people's places of work with the help of public organizations was proposed. Such a system would ensure a fair selection of candidate-purchasers. Veterans of the Great Patriotic War would have priority, and deserving workers, leading workers and labour veterans would be given preference. It would not be possible to use unearned income to purchase a private car.¹¹⁷

Such a system of car sales was accepted in 1970. Registration on the waiting list for a car was moved from shops to trade union organizations at enterprises and institutions. This reduced the excitement around car shops, put an end to the spontaneous waiting lists, and guaranteed that priority was given to concessionary categories of citizens. Of course, alternative routes existed in practice. Many citizens in concessionary categories signed up for a car not for themselves, but for their relatives. It was possible to buy a car on the "black market."

In 1970-71, direct sales of second-hand cars from the owner to the buyer were officially permitted. This immediately extended the market for second-hand cars, and led to the formation of real market prices, which turned out to be higher than the prices set by second-hand shops, and often higher than the price of a new car. Until then, sales had been impersonal: a car was given to a second-hand shop, was valued taking into account wear and tear, and was sold. Cars thereby became probably the only goods on the Soviet consumer market that could pass from one owner to another several times during their lifetimes, and which had a market price.

In 1974-75 an attempt was made in Moscow to move over to unrestricted registration onto the Zhiguli waiting list. To prevent an enormous crowd of people accumulating, registration took place in district branches of State Motor-Vehicle Inspectorate (GAI) rather than in shops. Only Muscovites who had not previously owned a car were registered. These conditions put Muscovites in an advantageous position relative to non-Muscovites, and at the same time reduced the opportunity for speculative purchasing of cars for resale. Yet, unrestricted waiting lists remained an exception, and until the end of the Soviet period a distributive system remained for the sale of cars.

¹¹⁷
Za rulem (2) 1970, 20.

The Volga Car Factory caused a real revolution in car servicing. A system of company service centres was created, which were supposed to carry out both technical servicing and repairs. However, despite its impressive scale, the technical servicing system still couldn't satisfy consumer demand. The deficit of motor vehicles inevitably led to a deficit in spare parts and correspondingly, to problems with repairs. The problem was that the lifespan of a Zhiguli, by Western measures, was six to eight years, or at most ten. Production of spare parts was based on no more than five or six million Zhiguli cars being in use. But right until the mid-1990s, car owners tried with all their might to piece their vehicles back together even after serious accidents, if only there was a license plate number. Only a handful of vehicles were written off. The number of vehicles grew. Models that were no longer in production continued to be used. At the start of the 1980s, the number of privately owned cars reached ten million, 20 per cent of which had been in use for ten years or more.

In the absence of a developed system of car servicing, the responsibility for every-day technical servicing and car maintenance continued to rest on the shoulders of car owners. If a car broke down, the wait for spare parts would put it out of service for a long time. Cars often remained in pieces outdoors at technical servicing centres for several months at a time, while their owners in vain wrote complaints to various authorities, right up to the Central Committee of the Communist Party of the Soviet Union.

A paradoxical situation arose: the more cars and spare parts were produced, the wider the network of technical servicing centres became, and the harder it became to satisfy the demands of car owners. Why did this happen? Above all, the requirements of the Soviet consumer had changed. VAZ had a lot to do with that. A breakthrough in the production of cars and an attempt to move to a new level of quality that corresponded with international standards stimulated rising demands. A romantic and rapturous attitude to cars, private transport and the system of VAZ servicing was soon replaced by irritation over waiting lists, the rudeness of salesmen and technical staff, and numerous defects in the cars. Consumer requirements could in turn have stimulated improvements in the work of both the car factories and sales and servicing centres. But in the conditions of a planned economy and a growing deficit on the consumer market, this did not happen.

The USSR's experience shows that to combine the mass introduction of motor vehicles with the principle of collectivism in car use proved to be impossible. The motor vehicle revolution that started in the USSR after the decline of socialism helped to erode the collectivist foundations of life in Soviet society. <<

05

Kurt Möser

Motorization of German Societies in East and West

From 1933, there was a state program of fostering car ownership, road-building, easier traffic licensing, abolishment of road taxation on new cars, and introducing organizations to create a “nation of motorists.” The “people’s car,” Volkswagen, and the construction of motorways were an approach which aimed at the system as a whole; it left no component of individual road transport untouched without achieving its aims. Quite paradoxically, this systemic and indeed totalitarian grip on motoring had a distinct liberal, some say anarchistic touch. Undisciplined drivers, no speed limits and Hitler’s own ranting against control proved to be a complex heritage for post-war driving.

In some ways, the period before 1945 cast a long shadow. A British automobile historian remarked that the West Germans drove in the 1950s in the people’s car on the “roads of the Führer” into countries they had traveled in uniform before. But both German states profited from the road-building program of the National Socialists. Equally, they relied heavily on the continuation of car types that were in production before. BMW of Eisenach proved to be a favorite vehicle of high-ranking Soviet officers after being reintroduced into production, and the Volkswagen was put in production by the British military government.¹¹⁸ Until re-tooling and redesigning started in the early 1950s, German cars were pre-war models, modified to a greater or lesser degree.

Several German manufacturers had secret plans for how to proceed with car production after the war, having worked previously on the development of new models. Some could activate these projects, helped by in some cases a surprisingly low degree of destruction of the manufacturing plants. By 1950, most of the important pre-war manufacturers were in business again, sometimes split between the East and the West (as in the case of BMW/EMW, producing in both Eisenach and Munich). Often this began by repairing or rebuilding Allied vehicles or assembling automobiles from leftover stocks.

The four powers, before the foundation of the two states, had different political aims regarding the automobile industry. The British occupation officers were on one hand quite happy to receive cars for their own use; on the other hand, they tried to keep competitors out of the market. In the Soviet zone “Demontagen” played a major role, transferring complete automobile plants eastward. Car production in the factories that were left was intended for the occupiers and for export to the USSR. The French were also limiting renewed production by German firms, which resulted, for instance, in production difficulties for Mercedes Benz, which had to rely on suppliers located in the French occupation zone. Only after the formation of the “trizone” were the differing industrial politics of the Western Allies homogenized.

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Markus Lupa: *The British and their Works. The Volkswagenwerk and the occupying power 1945–1949*, Wolfsburg 2nd ed. 2005; Ralf Richter: *Ivan Hirst. British Officer and Manager of Volkswagen’s Postwar Recovery*, Wolfsburg 2003.

In the beginning, both states had a distinct bias toward railways. While this continued in the GDR, in the West it was gradually recognized that private cars were not only here to stay, but that in order to benefit from their economic and social importance, the state had to play a part. The West German administrations increasingly yielded to a number of factors in favor of “automobility” – the combination of growing desire for private cars, increasing spending power to enable this, and the success of the car and supply industry. Political measures were implemented to bolster the car market; for instance, tax-saving for commuters using private cars. This financial incentive had also been used by the National Socialists, but it is doubtful that it was really a decisive factor. Even the issue of better roads did not play a main role. During the boom years of the 1960s, demand was higher than supply, often leading to waiting lists for new cars. Thus, as opposed to the top-down implemented politics of growth, there was a strong tendency toward self-sustained growth led by a strong desire for cars on the domestic market. These bottom-up factors are less easily interpreted and weighted than economic and political measures, and therefore tend to be downplayed by historians.

Elements of “car lust” were less economic than social – the wish for independent mobility, to enjoy motorized holidays, to enjoy mobile independence, and “to keep up with the Joneses.” During the boom years, most cultural actors like magazines, other publications, films and television put cars in the center. Whether politicians or film stars were shown in their vehicles, or fashion shots featured designer cars, there were many indirect ways to glamorize cars that filtered down to ordinary consumers. What are called the secondary factors of cars – display, driving pleasure, conspicuous consumption, lust for design – played a most significant role in establishing the automobile society in West Germany.

Foreign observers noticed and still notice a specific “Germanness” in the fondness for automobiles – they seemed more attached to them than other Europeans, willing to lavish more affections on them, seeing cars more as a personal expression or as extensions of their personalities. For some consumer strata in the 1960s, cars may not have been economically rational. In spite of the fact that their cars taxed their family budgets heavily, they were proud of their vehicles and devoted a considerable share of their household income for their individual mobility. This repeated a pattern that emerged in the early 1930s in the USA, where farmers mortgaged their farms in order to keep their cars. Thus, a social, economic and cultural pattern evolved which characterized the West German “automobile society.” Although politics played its part in this development, it was not the leading actor, with politicians more often reacting than acting.

A case in point was road building. From the early days of “automobilization,” the authorities were accused of purposely or accidentally delaying the necessary infrastructure measures, i.e. road building and improving, either by irrationally favoring public transport or by simply not recognizing the needs of a modern transport system. The “lagging behind” of road building was seen as the main cause for the system being pushed to its limits, causing traffic jams and slowing down an inherently modern and fast means of transport. In short, what German motorists or their organizations demanded was more roads, and otherwise no interference with the automobile system.

Another factor that was sometimes overestimated in interpreting the potential for development of the automobile society was the active role of the industry. In interpreting consumerism and its core, automobile consumerism, it was alleged that the industry actively influenced buyers and found ways to make them obtain cars against their own interests or even their will. Advertising and “hidden persuaders” have played a role, but not so much as to foster desire and to tempt consumers into car ownership. Their role was more in the forming of strata of car ownership and in creating the pattern of an automobile-class society.

Important facilitators were easier consumer credit available as “financing programs” or rental-purchase schemes. An important feature was the opportunity for customers to “trade in” their old cars when buying new ones. This influenced the growth of “automobilism” in two ways: first by encouraging customers to move with ease to the newest models without bothering about what to do with their old cars, and secondly by the availability of relatively young used cars. The first effect guaranteed production growth in a market that was perceived as becoming “saturated”; the second broadened the consumer base by providing “pre-owned” cars for reasonable prices. Buyers of new cars willing to live with steep depreciation thus supported a second-hand market.

For a period context, referring to the “1950s syndrome” is quite helpful.¹¹⁹ In several ways, 1957 became a special year on the path to the West German “Automobilgesellschaft” (automobile society). In this year the number of automobiles (2.23 million) was, for the first time, higher than that of motorized two-wheelers. These “vehicles of the economically underprivileged” were replaced by real cars. Moreover, in the second half of the 1950s a planned process of mechanization for car manufacture began, characterized by high investment.¹²⁰ This led to increased pressure on small-scale car manufacturers and market dominance of real cars, rendering entry-level vehicles obsolete. From this year on, which also brought “Sputnik shock” to the

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Christian Pfister: Das 1950er Syndrom. Der Weg in die Konsumgesellschaft, Bern 1996.

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Klaus Kuhm: Das eilige Jahrhundert, Hamburg 1995, 50.

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Kuhm, Jahrhundert 47–49.

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Kuhm, Jahrhundert 61;
Dietmar Klenke: Freier Stau für
freie Bürger. Die Geschichte der
bundesdeutschen Verkehrspolitik
1949–1994, Darmstadt 1995, 320.

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Kurt Möser: Der Stau – Zur
Geschichte der Überfüllung des
Verkehrssystems, in: Technik,
Arbeit und Umwelt in der
Geschichte. Ed. by Torsten Meyer/
Marcus Popplow, Münster 2006,
281–296.

West, modern technologies were increasingly regarded as means of sustaining West Germany's economic well-being.¹²¹ West German industrial politics switched over to actively helping “automobilism” on its way. It proved to be a turning point for the political attitude toward road building, too. Whereas this had stagnated until around 1960, it “exploded” afterwards, spurred by the slogan “Wohlstand kommt auf guten Straßen” (“Good roads are ways to economic well-being”).¹²² Private automobiles started to become engines of German industrial output and main pillars of economic growth.

Around this same year, 1957, the trade unions switched from confrontation to participation. They supported the automobile-based growth and achieved a share for their members, becoming more powerful in this process. Moreover, a specific style of industrial social politics developed around and within the automobile industry. The specific German Fordism with a lag had a distinctly different face. All in all, the West German type of corporate politics, the “Konsensdemokratie,” as well as different forms of worker participation and the humanization of the labor world that began after 1960 – in short, the evolving German model of social market economy – had the automobile industry at its center.

Among the West German parties there were, within the established consensus of acceptance of an “automobile society,” no very significant differences. The Social Democrats tended to favor public transport slightly more, whereas the Christian Democrats were regarded as the automobile industry's public arm. In the 1960s the Liberals (FDP) became close to an “automobile party.” In the famous “Spiegel” article, “Traffic jam on German roads” from 1963, the case for new roads and fulfilling infrastructure requirements combined with demanding a less meddling attitude from the state was put forward most clearly.¹²³

Until the middle of the 1950s, transport politics did not differ that much between the two German states. Both stressed the importance of rail transport and gave individual car ownership a low priority. While this changed in the West, the East kept to the politics preferring public transport. There were ideological reasons for this, but also industrial, the GDR having a too-small industrial base for widespread vehicle ownership. Transport as a whole was regarded as a “non-producing sector” and thus given low priority. Public transport, in this view, had advantages: there were economies of scale, and much better use of industrial resources. The Politbüro aimed at state-dominated mobility patterns, e.g. the “steering” (Lenkung) of availability through industrial planning, manipulation of prices, and specific city planning, exemplified by the availability of garages. The planning economy's goal was clear: never to exceed 350 cars per 1000 people.

But this was not quite successful. Planned mass transportation had a mirror image in a counter-conceptual private motorization. On the one hand, the results of planning were not as good as it seemed.¹²⁴ On the other hand, there was the development of car-orientated consumerism “from below,” quite contrary to the proclaimed economic goals. Between 1970 and 1980 the number of cars grew from 1.16 to 2.68 million.¹²⁵ As can be seen from the fact that in 1972 the number of cars exceeded motorcycles, the motorization of the GDR followed the pattern of West Germany, but with a delay of 15 years. Car production rose in the 1960s, after the erection of the Wall, consistent with an increasing importance of consumer goods. The Politbüro made grudging concessions to “Bevölkerungsinteresse,” a populace that felt the fascination of individual car ownership. But the party leaders were seeing that turning the car into a mass consumer article put heavy strains on an already strained economy. The specific path was to rely on smaller cars with features to limit technological “extravagance,” e.g. two-stroke engines, and to save on limited resources, as can be seen in the introduction of the plastic body of the Trabant. Other measures were the limitation of production, and pricing that guaranteed limited demand, even though there were ever-longer waiting lists.

It would be shortsighted to reduce the desire for cars as “Ersatzbefriedigung” for restricted political and geographical mobility. Party leaders saw the connection between social content, political stability and “consumerism grouped around automobiles.”¹²⁶ This led to copying the Western pattern of production pace and consumerism or, as a critic put it, creating a society increasingly at odds with Socialist ideals.¹²⁷ For instance, new class structures with car-based “conspicuous consumption” and car-centered social prestige developed. The Western model began invading the other Germany.

In the West there was a reluctant regulation policy toward private cars. This was understood as a reaction to the totalitarian heritage as well as the totalitarian competitors of the Eastern Bloc. In trying to tackle the systemic problems, which became increasingly evident, the West German government relied heavily on assumed self-governing forces within the industry. This concerned implementing safety measures, and curbing environmental impact and waste of natural resources. It happened in the cases of compulsory safety belt wearing, and the introduction of catalytic converters or speed limits. In these cases, the Bonn government was markedly slower and showed more restraint than the United States. The reason lay in the considerations for the car industry, which became ever more economically important.

¹²⁴ Kuhn, *Jahrhundert* 129.

¹²⁵ Kuhn, *Jahrhundert* 126.

¹²⁶ Kuhn, *Jahrhundert* 121.

¹²⁷ Winfried Wolf: *Eisenbahn und Autowahn*, Hamburg 1992, 200.

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Kurt Möser: Der Staat und seine
Regelungslust, in: Lust am Auto.
Ausstellungskatalog Mannheim
2004.

From the 1980s on international legislation with respect to new cars became more significant. The European Union increasingly supplemented national regulation regarding pollution and safety. At the beginning of this process the EU's proposals were less strict than German national rules, but from the late 1990s Europe put more pressure on national legislation, striving for cleaner and safer cars. Up to now, Germany resisted attempts to harmonize traffic regulation, which would end her "Sonderweg," the lack of a general speed limit. Growing discontent with EU politics, which was increasingly seen as meddling and not democratically legitimate, was focused on the automobile. The most significant reason for restricted regulation was the mood of a car-friendly populace. Opposition to speed limits on the motorways proved so strong that after a brief period, following the oil crisis, they had to be abandoned. Even measures that the majority of motorists came to regard as rational, e.g. the wearing of safety belts, were opposed because they were ordered and controlled by the authorities.

The mirror image was a lack of respect for police and, not to underestimate, for each other. The "automobile elbow society," where every atomized traffic molecule – every isolated driver – tried to outdo each other, to pass without regard for safety, and to display impolite behavior, used to characterize West German traffic. The heritage of the Nazi period opened the path to argue that one's own individualistic behavior on the road was a reaction against totalitarian regulation. In the Federal Republic, insistence on "free driving for free citizens" became an identity-creating if notorious slogan, signifying liberal self-confidence, opposition to an all-regulating state, and symbolic power of the people. Ideologically, cars were re-interpreted as freedom symbols with an anti-totalitarian image. The movement against "speed restriction" was typical of the extraordinarily important influence that cars and traffic politics had become for the West German democracy and its self-confident citizens, who reacted against the "lust of the state for regulation."¹²⁸

The policing of individual mobility in the GDR was, in nearly every aspect, to the contrary. Strict speed limits and tight control were common, coupled with respect for state organs. Heavy-handed state regulation had its opposite in forced tolerance of motorists against control. When driving on transit routes on their way to Berlin, West German drivers experienced not only the pre-1939 Autobahn aesthetics, but also a degree of control that most Westerners regarded as rather scary and increasingly at odds with a modern society.

Despite many differences between the two car cultures, there were three strong common denominators: leisure, attraction, and socialization for mobility. The usage pattern of cars favored leisure – touring and family use. This was even stronger in the GDR where cars were significantly less driven every day than in the West. There was also much lower annual mileage and longer service use. Since private cars were more precious and more difficult to keep in repair, they were mainly used for weekends and holiday trips. Commuting was done by public transport, which was favored and subsidized by the state. In the West, commuting by car was on the rise, which relegated public transport to an increasingly diminished role. But here, too, cars were the favored means of travel for shorter and longer leisure trips. The private lifestyle that established itself was rather similar: The pattern in the Federal Republic of a combination of private home and motorcar did have its counterpart in the GDR combination of car and dacha.¹²⁹

Attraction to automobiles, indeed what has been described as the “love of automobiles,” proved another strong factor in individual motorization, and an “agent” of system diffusion. This second common denominator could manifest itself as affective relationships, which are largely found in every automobile society. Personalizing cars, doing servicing and maintenance, and ritualized washing on Saturdays united both user cultures. But there were two modes of “tinkering:” In the West it was done as a form of bonding, whereas in the East it was done out of necessity. Spare parts were rare, service facilities scarce, and in order to keep one’s car running one had to do it oneself. Modifications that were proclaimed useful but were largely aesthetic proved to be rather similar. Adding fog lights to Trabants or Volkswagens and spoilers to Fords or Wartburgs aimed to create a “sporting” and individualistic image. The only difference of these forms of bonding between user and machine was that they were done either in a car-affluent or in a car-restrictive society, with either easy availability or difficult procurement of parts.

A third common factor was the socialization of children and youth into an automobile-minded society. Through model cars, popular magazines, go-cart races, kit building, children’s vehicles, playing cards and a vast variety of other agents, they became car-conscious long before actively participating in motorization. Increasingly, socialization for automobility began at a very early age. Thus, children were literally growing up with and in cars. “Verkehrserziehung” (road safety training) was another element important in the West and the East for familiarizing young people with the car culture.¹³⁰ Even before passing the driver’s test – in both societies a rite of passage into the world of grown-ups – children increasingly participated in the driving experience. They were well on their way

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Werner Polster/Klaus Voy: *Eigenheim und Automobil – Materielle Fundamente der Lebensweise*, in: *Gesellschaftliche Transformationsprozesse und materielle Lebensweise*. Ed. by Klaus Voy, Marburg 1991.

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Wolfgang Böcher: *Aspekte einer Problemgeschichte der Verkehrserziehung*, in: *Die Entwicklung der Motorisierung im Deutschen Reich und den Nachfolgestaaten*. Ed. by Harry Niemann/Armin Hermann, Stuttgart 1995, 146–168.

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 VDA, Presse-Vorschau der 38. IAA,
 Frankfurt am Main 1957.

to automobility when compulsory military service exposed male youth to fully motorized armies. West Germany's "Bundeswehr" ("Federal Defense Force"), advertising itself as the "school of the nation," became for hundreds of thousands the "driver's school of the nation," in no other way than the East's NVA ("National People's Army"). Thus, easy and early familiarity with cars shaped expectations and attitudes in both societies. Socialization for automobility was a main factor of the system's acceptance and sustained the system's growth.

In both states, a repetition of the pattern of the beginning of motorization between the wars occurred: consumer entry into the market was on two or three wheels, by motorcycles or combinations, by scooters as the more civilized vehicles, and not least by light tax- and license-free motorbikes. The ubiquitous NSU Quickly and the Zündapps or Adlers had their Eastern counterparts in the Schwalbe and the MZ. In order to graduate to cars, a second-hand market evolved in both societies, but for different reasons. In the GDR, buying used cars could shorten the waiting list while not saving much. In the West, pre-owned cars, which had undergone much faster depreciation, provided a less costly way to fulfill one's four-wheeled dream. But even in the crucial year 1957, the production of two-wheelers in the Federal Republic was still higher, with 2,413,000 two-wheelers leaving the assembly lines, as opposed to 2,208,000 cars.¹³¹

Another path to the "people's car," which was specific to the West, were so-called "mobiles." These hybrids could range from upscale motorcycles with some weather protection to smallish cars with small engines. Their layout, too, could range from the highly unconventional –three-wheelers with airplane-like canopies or front doors –to the imitation and downscaling of "proper" cars. But these entry-cars did not do well against the Volkswagen, which radiated solidity and engineering competence in addition to being a full car which, for its time, was quite powerful. It was the epitome of 1930s rational engineering, saving on a complex power train and a liquid cooling system with its rear-mounted, air-cooled engine. Another important reason was its highly competitive price, held down by mass production methods. The Volkswagen was not only a proper "people's car," but it adapted the Fordist model of mass production, growing wages, growing consumerism to West German specifics, complementing strong trade unions and cooperative labor politics. Not at least aided by the high productivity of the Wolfsburg factory, the Volkswagen became also an export asset. By 1955, one million Volkswagen had been manufactured, and a considerable number of those exported.

The GDR motorization followed the pattern set in the West but with a significant time lag. The downscaling of car production in the 1950s was marked by the transition from Eisenach's EMW to the Wartburg with its more austere two-stroke engine. This was followed by the introduction of its own brand of "people's car," but with much less availability. When the Trabant was introduced, it was a successful compromise between utility (four-door layout), conservation of resources (phenol-resin body, simple two-cylinder, two-stroke engine), repairability (separate body and chassis) and styling compatible with a perceived export market (tailfins). Like the Volkswagen, its long product cycle led to obsolescence, but when the Golf became the new Volkswagen, there was no similar substitution in the East.

There is a fundamental dichotomy within mass motorization: on one hand, automobile ownership became democratic, potentially opening it to everybody. That car ownership became a right of its own can be seen by the "Manifest der Kraftfahrt," formulated by the most influential German Automobile Club (ADAC) in 1965, which was stylistically not far from the other famous German "Manifest" from 1848. It stated that the "automobile is a consumer item for everybody, intended for fulfilling everyday needs which belong in a free world to a progressive forming of our life."¹³² This was a statement signaling the transformation of automobiles from a luxury to a durable consumer item for everybody and for everyday use. The mass motorized society – or motorized mass society – was thus prepared and accompanied by a cultural and social debate.

Aside from this drive for the democratization of cars, an important factor of automobile expansion was their function as social symbols, as highly visible artifacts to show or project one's status and to express one's personality. This influenced the hierarchical and cultural class system within the car manufacturing industry and its customers. Until well into the 1980s, there was a clear division of labor and clear-cut images. For example, a ranking existed between solidly up – Mercedes – and down – Volkswagen – or upward mobility – BMW – and, in the middle, the "American" makers Opel and Ford. Import cars signaled either eccentricity or frugality. Many companies within this layered automobile class system intentionally did not cover the whole market and concentrated on their class segments. Over time, this rather stable hierarchical matrix of car classes and images broke down. For instance, Mercedes went down right into the micro-car class, whereas Volkswagen branched out into the whole spectrum, up into the luxury segment. Industry practice could achieve either by expanding the range of vehicles offered, or by diversifying into specific brands. A Sloanistic differentiation of classes within firms, or firms with differing images, evolved. The redefinition of car images and car classes was not exclusively a top-down process; it

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Wolfgang Sachs: Die Liebe zum Automobil, Reinbek 1984, 94; Wolfgang König: Geschichte der Konsumgesellschaft, Stuttgart 2000, 307.

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Kurt Möser: Autodesigner und Autonutzer im Konflikt: Der Fall des Spoiler, in: Technik und Gesellschaft. Jahrbuch 10: Automobil und Automobilismus. Ed. by Gert Schmidt, Frankfurt am Main 1999, 219–236.

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Peter Schneider: Lenz. Eine Erzählung, Berlin 1974, 41–55.

could be influenced by relevant user groups. A case in point is the social restructuring of the Volkswagen. Since the end of its production run, it was transformed from a “subsistence level” car to a lifestyle object within a youth culture (Volkswagen Beetle).

Between the 1960s and the 1990s, German society underwent a profound transformation. The more fluid automobile class system mirrored a society where social groups and strata were becoming less traditionally orientated, less defined by stable class borders, and more atomized. Thus, a wide range of car signifiers could be employed to express this wide spectrum. Since there is virtually no element of cars that cannot be used as a sign, a complex pattern evolved: new family vans with top-of-the-range engines as signifiers of well-to-do families; French coupés for childless couples; dirty old Passat for the working poor.

Parallel with the stratification of automobile classes and objectified “fine distinctions,” new forms of user competence and self-confidence evolved. To read these distinctions, to decode car-based signifiers, became a broad social competence within the automobile society.¹³³ In addition, a car-based aesthetic competence developed. To judge forms, to spot stylistic differences between model years, to discuss incremental changes, became components of an aesthetic ability that permeated the West German culture. The hero of a novel from 1974 noted people’s competence to judge changes in Volkswagen’s design and mechanics: “The changes, which were made (...) in the last two or three years appeared to him to be comically few (...). He heard sentences that were to describe the new features on the vehicles. And, referring to the invisible details, the viewers referred the changes made to the model’s invisible engine. They compared the displacement of the new engine with the displacements of the older engines, they spoke of changes and reinforcements to the body, of the floor panels and chassis, of a revolution in the ventilation inside the passenger compartment, and they claimed that the vehicle will run and run and run.”¹³⁴ In this passage the less car-conscious hero marvels at the people’s ability to identify these incremental changes and their competence in judging the design aesthetics. Thus, the verbalization of cars was an important feature that took place in an increasing number of magazines, car reviews, periodicals and automobile-related articles in the general press, helping to integrate automobiles culturally and aesthetically.

From the beginning, car markets and car cultures were internationally integrated. Public discussions and reactions to influences from abroad abounded. For instance, American market trends were shown in “Letters from Detroit” in the German edition of “Popular Mechanics.” There was an ambivalent attitude toward U.S. cars – partly

admiration for their power and comfort, partly criticism of their perceived opulence. West German cars showed in this context a tame adaptation of American design trends, sharing in part the ubiquity of the tailfin, and adapting dashboard elements. But far more important was the American influence in creating an ever more comfortable interior with softer, lighter and seemingly more modern design elements and comfort features.

Secondly, an “Italianization” of design appeared, exemplified by the commissioning of an Italian design office in the early 1970s for the new “two-box people’s cars” from Volkswagen. The clear-cut, angular, hard-edged and simplified Italian design had a counterpart in German post-Bauhaus design of Ulmer “Hochschule für Gestaltung” provenance. From the early 1950s, Italian design, coupled with the practice of providing modern, comparative high-powered and sporty, if smallish, powerplants, saw a notable reception in Germany.

A “Frenchization” of German car culture was observable too, as a trend toward more practical and user-friendly layouts. Cars such as the Citroën 2CV and the Renault R4/5 paved the way from “three-box” designs toward the variable three- or five-door, “two-box” layouts. The Volkswagen Golf appeared in 1974, becoming a paragon, even adopted to name this automobile class, despite not having been the first. First was the Renault 16, transferring a practical and flexible five-door layout into the automobile middle class.

The last influence was and is Japanese. Cars from the Far East offered complete packages without charging consumers higher prices. Facing this competition, even basic German models got a more comprehensive specification, including extras that had been extra-cost options before. Thus, “Japanization” fostered a trend of filtering down to the lower car classes features previously associated with luxury cars, e.g. power door locks, roll-down windows and air conditioners. The most revolutionary Japanese influence is their manufacturing model. The “Japanese Challenge” of leaner production, strict quality control, worker commitment, and involvement of external suppliers was nearly as eagerly studied and copied as the Fordism in the 1920s. It is debatable, though, how much German car companies have reacted properly to this challenge and to the “second revolution in the car industry.”¹³⁵ Despite adopting many features, there is still a gap in some respects – in, for instance, hours per car manufactured, product quality, reliability and, most importantly, consumer satisfaction.

A genuine German approach to automobile layout and design since the 1960s is not that easy to identify. I propose two trends. One is a quality approach to automobile

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James P. Womack/Daniel T. Jones/Daniel Roos: Die zweite Revolution in der Autoindustrie. Frankfurt am Main 1991.

engineering, exemplified by top range and entry-level range cars. Volkswagen and Mercedes were seen (and were projected) as the ultimate “engineer’s vehicles,” characterized by high quality of production, aiming more at reliability and consumer value than their British, French or Italian competitors. This was a set of values which, though lacking certain flashiness, was a factor of German export success. The stress on engineering was in some cases combined with compromises in user comfort or usability, without serious marketing effects.

A second German specific, developing in the late 1960s, was a trend toward modification of the family sedan as a compact, sporty, powerful “driving machine.” Whereas fast-looking coupés and sports-look-alikes were a common feature – examples were the Opel Ascona or Ford Capri – the sports sedan follows a German pattern. 1960s cars like the BMW 1800 sedans, or the later 02 series, set a trend toward the “joy of driving,” with better cornering, stiff suspension, and a sporty engine and gearbox. Today, the German model of sportiness has become a trend in global car layout. Again, this technology-driven approach was bought by sacrificing comfort, a soft ride or space, but met by high market acceptance. Global design features were followed, rather than fostered, by German manufacturers, but executed in a specific way.

Diesel cars occupied small niches for taxis and as farmer’s cars, ridiculed as “street tractors.” But in 1976, a small Diesel engine was successfully introduced for the Golf, following the drive toward greater fuel economy. By gradually refining compression-ignition engines, introducing turbo charging and later electronic injection, they became increasingly successful alternatives to Otto-cycle (spark-ignition) engines, powering even sports cars. The price to pay was an increasing complexity, transforming an inherently simple design into a high-tech powerplant. This was the path of the Otto-cycle engine as well, leading to an electronically controlled internal combustion engine. Fuel injection replacing carburetors was the first and most significant step. Only by these actions could the increasing demands for fuel efficiency, cleaner burning and adaptation to catalytic converters be met.

Whereas the Diesel came to stay and succeed, another engine type did not fare so well. At the beginning of 1961 there loomed an attractive alternative to conventional powerplants. The rotary-cycle engine, developed by the German inventor Felix Wankel, promised to provide compact, smooth, turbine-like, and emphatically modern power. Despite the appearance of the innovative NSU Ro 80 rotary-driven car in 1967, the Wankel engine failed to catch on, less due to technical problems (which were soon ironed out) and mostly because, with respect to fuel economy, which was the lead-

ing criterion after the oil crisis, the rotary had no advantage at all. Leading German industrialists played their part too, in marginalizing the Wankel. The GDR took licenses for Wankel's innovative engine with the intention of replacing existing powerplants for all motorbikes and cars, according to Walter Ulbricht's slogan "Überholen ohne einzuholen" (overhaul without catching up). But the failure of the indigenous Wankel engine program meant even harsher stagnation for the GDR car industry.

Since there was no substitution, the four-stroke, Otto-cycle engine kept its dominance but became more refined and technologically advanced. Incremental changes were employed to improve fuel economy and increase power output (the latter being a priority of engineers and buyers alike). Service intervals became longer and reliability increased. This last feature was partly countered by the adoption of electronics.

The two-stroke engine, which was competitive well into the 1960s, became obsolete. Despite obvious advantages – lightness, compact size, simplicity – it was criticized first for its smell and later, around 1970, for its failure to comply with growing environmental and resource concerns. It emitted high hydrocarbon levels due to its burning oil mixed with the fuel, and the specific fuel consumption was high. Despite these features, two-strokes were the main powerplants for private cars right up to the last years of the GDR. In the West, two-stroke powered cars had by then lost any chance in the market. They became symbols for Eastern obsolescence, and for the lagging behind of the planned economy model as a whole.

Around 1970 several types of crises – or perceived crises – occurred. The number of accident victims increased, and the social reactions to ecological and fuel crises changed the political landscape and affected the perception of cars. The public became more conscious of the systemic and structural problems of the automobile cluster within a framework of general criticism of the Western economic system exploiting people and nature.¹³⁶ General political discussions focused on cars. Leftists with a critical approach explored its "social-economic meaning."¹³⁷ The automobile became a symbol of the epitome of Western capitalism, as well as a symbol of ecological waste and pollution. The material reactions of the car manufacturers to an increasingly more critical consumer climate led to defensive cars.

Measures were taken to counter the growing death toll, which amounted to 20,000 in 1970 in the West alone. First, there had to be safer cars. Features of experimental safety cars found their way into series-production models, e.g. stable passenger cells, crumple zones, and softer interior surfaces. The Western drive toward passive safe-

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John McNeill: *Something New under the Sun*, London 2000.

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An early example: Thomas Krämer-Badoni/Herbert Grymer: *Zur sozio-ökonomischen Bedeutung des Automobils*, Frankfurt am Main 1971.

ty, the restructuring of car bodies to increase crash survivability, was not reproduced in GDR vehicles, creating a lag similar to that of motorization in general. Cars with separate bodies and chassis did not adapt to the new safety construction. Traffic education, which relied heavily on moral appeals, substituted for systemic improvements and safer cars. Whether these appeals were centralized or, as in the West, staged by a multitude of organizations, firms and clubs, their success was limited. More successful were measures to improve the rescue and medical care of traffic victims, but the main feature saving lives was the introduction of safety belts. Compulsory use of safety belts was not met with much enthusiasm. Drivers in the West saw it as restricting and limiting their “freedom,” which generated a strong tendency of resistance.

Since structural safety measures generally made cars heavier, this approach clashed with the aims of fuel economy and saving resources. Here, the four-stroke, internal combustion engine had capacity for improvement, while the two-stroke engine was inherently more polluting. Attempts to introduce radical technical solutions, e.g. electric- or hydrogen-fuel-cell-powered cars proved to be – contrary to overoptimistic expectations – less successful than incremental improvements of existing types. The big issue was the adoption of electronics, which began as electronic ignition and spread to electronic engine management. But as weight and power output of cars increased, fuel-saving technologies had less impact on overall fuel consumption than expected. After 1975, there were attempts to re-rationalize cars in more than one way. Smaller cars, “city cars,” cars intended for developing countries – in general, more practical and less wasteful cars – came into cultural and social focus. This defensive automobilism had at its root the feeling that automobiles had reached and transgressed their peak. This motivated the decisions of main industrial players in the Federal Republic. Daimler-Benz branched into aerospace technology, attempting to create an “integrated technology concern” by preparing for the time after the car. This was short-lived, as were all projects to provide cars with alternative energy sources, or to provide alternatives to private automobility. Car sharing or public-private transport combinations did not have much success.

To the slow and quite resistance-prone acceptance of “cleaner” technologies, the history of the catalytic converter is significant. Long after this technology was accepted in the U.S., it had a slow start in Germany because of a lack of customer acceptance due to fears of decreased power output and higher costs. A main factor was the resistance of the industry, putting forth arguments of cost, technological problems and lack of consumer acceptance. Therefore, a sequence unfolded that was typical for the Federal Republic, and which can be regarded as a lesson on the interplay of politics, customers, industry and corporate units. In accordance with the West German tradition of skepticism

against state regulation, most steps to implement safety measures and make “cleaner” technologies compulsory met with the combined resistance of users, user groups and the industry. First, “cleaner” cars were taxed at lower rates, creating financial incentives. Then emission limits were fixed at levels that were easily met, even with existing technology, while stricter limits were opposed by the industry. Only after a rather long time were standards comparable to those imposed in the USA. As a rule, safety belts and catalytic converters were introduced after long periods of delay and extended political debate, and after voluntary implementation by the industry did not show the desired results. Quite contrary to the German image of authoritarian politics, German traffic politics had become corporate-minded and indeed close to the monitoring of people’s opinion.

The period of defensive “automobilism” was short-lived. Fueled by a growing economy, the trend toward “bigger and faster” cars became significant. The social, cultural and aesthetic restructuring of automobility, which took place before 1990, had several components. First, there was a redefinition of luxury, comfort, and power. Filtering down from big cars, luxury features and living room comfort, as well as more powerful engines, became widespread. The 1980s saw a wholesale “electrification” of window winders, rear-view mirrors and seat adjustments, turning cars into electric cars with internal combustion main power. This trend was complemented by a tendency toward privacy, increasingly isolating the passenger cell from climate and road environment. Styling and design became an even more significant marketing factor. The aesthetics of the car, its perception and cultural positioning, went ever more beyond functionality. Cars were increasingly bought and marketed as personal items, reflecting and symbolizing projected lifestyles of individuals or families. This was mirrored by the increasingly complex, expensive and culturally lavish attempts to position brands. Collecting one’s new car became a cultural happening. Wolfsburg’s Autostadt is a typical ensemble of brand cathedral, with company museums stage-managing myths that call upon history to aid car sales.

Despite rising energy costs, fuel economy was no longer a focal point for consumers. The growing trend to smaller cars was less motivated by fuel consumption than by middle-class cars “outgrowing” the financial reach of consumers. Symptomatic of this trend was the development of the “Smart” micro-car: Intended by its inventor, Nicholas Hayek, as an element of an alternative transport system, it was introduced into the market as a “lifestyle car” and is now sold as an ordinary if smaller second car. Another symptom of the shift in consumer priorities is the demise of the Volkswagen “Drei-Liter-Polo” named for its extremely low fuel consumption

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Andreas Knie: Die Interpretation des Autos als Rennreiselimousine, in: Geschichte der Zukunft des Verkehrs. Ed. by Hans-Liudger Dienel/Helmut Trischler, Frankfurt am Main 1997, 243–259.

(3L/100km), which was taken from the market due to the lack of consumer interest. Instead, a West German pattern of automobility evolved, characterized by luxury, “sportiness” and comfort, increased differentiation and fragmentation of car design layouts, with the “speed travel limousine” at its center.¹³⁸

The industrial trend of the GDR was to adapt their obsolete car designs to use imported or licensed West German engines in a makeshift way, under economic and political restrictions, and adapting to raw material shortages and lacking of investment capital. Thus, there was a politically motivated stoppage of innovation, and even research. Before 1989, waiting lists increased to almost absurd lengths, and the spare part situation became precarious. Immediately after the politically motivated total opening of the market and the monetary alignment, there was no chance for the Wartburgs and Trabants to keep their old markets. After a brief period, in which it was hoped they would supply markets in the Eastern European countries, the GDR car industry quickly folded. On a distinctly smaller scale, it was possible to preserve some cores of automobile production. In Eisenach a new Opel automotive factory was built, which has now one of the highest productivity rates among General Motors’ plants.

It is argued that the desire for cars – or for a wider car market that was more attractive, more accessible and more open to choice – spurred the “revolution” of 1989. This was within the wider context of the deficits of the East German model of the consumer society. After reunification there was an “Aufholjagd” (“seeking to catch up”) of “automobilism”: Within a few years, similar user patterns evolved. Even so, differences persisted. Cars in East Germany are cheaper, smaller, more often foreign, but newer than in the West. In both parts of the unified country, automobilism reigns, and there has been a breakdown of organized political criticism and alternatives to automobilism. The establishment of an economic and cultural pattern of automobility, which found its first peak in the old Federal Republic in the years immediately after reunification, has become a common feature now. The high-wage German automobile industry restructured itself and managed to stay a key industry, but at a price. Reacting to globalization, production or parts production tends to be transferred to low-wage countries, cutting employment figures, creating competition among workers and factories. Export is still a firm pillar, but whether the concentration on technologically high-end, high-gadget-loaded, high-price segments will continue to succeed is not yet clear. There is already a crisis in the pattern of corporate profiting from the car industry, a symptom of which is the decreasing scope of the powerful trade unions. There are other signs of crisis, like the growing market for smaller cars, cheaper foreign cars, and slower replacement of an aging car fleet.

The period after 1995 saw a complete breakdown of organized criticism of automobility. Even the Party “Bündnis 90/Die Grünen” adopted a pragmatic arrangement with the automobile industry, urging them to innovate and develop less environmentally damaging and more resource-saving products. But even this party had to align with the mood of the voters, which do not easily tolerate any political interference that restricts automobility. An important feature of the last decade was yet another growth of super-Sloanism – a further vertically and horizontally differentiated car culture, characterized by stratified car classes and niches.¹³⁹ This reflects an increasingly diverse user culture no longer geared to cars for every “purse and purpose,” as Alfred P. Sloan had put it. Super-Sloanism now means cars for every lifestyle niche, meeting the need not for functionality but for projected difference. A case in point is the Sport Utility Vehicle (SUV), which is no longer an off-road vehicle but an urban sham freedom symbol, stressing symbolism and power aesthetics over functionality. The exploitation or construction of symbolic values and the creation of structural equivalents for them was (and is) mirrored by the “industrialized individualization” of the vehicles. Thus, the German car culture of today cannot be understood and interpreted without paying attention to the production and consumption of images and symbolic values, rather than the production and consumption of the vehicles themselves. <<

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Kurt Möser: Geschichte des
Autos, Frankfurt am Main 2002.

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Andrei I. Miniuk

**The Use of German Industrial and Scientific Technical Potential
in the Development of the Soviet Motor Industry, 1945–1950**

The Soviet motor industry made a leap forward in the development of assembly-line mass production in the course of the first five-year plan. By the end of the Second World War in Europe it had, despite certain losses, managed to preserve the basis of the manufacturing potential that had been established in its pre-war industrialization drive. In addition, the government of the USSR and the USSR People's Commissariat for Medium Motor Construction (Narkomsredmash USSR), which had been responsible for running this area of industry, showed a keen interest in increasing the country's production capacity and setting up new enterprises.

Regardless of the fact that the motor industry had suffered fewer losses than other areas of industry during the war years, its further development was accompanied by a series of difficulties. The Soviet economy had been bled dry by the war, and the country had extremely limited material, financial and labor resources at its disposal for reviving it. In the desperate post-war conditions, reparations from Germany were to play an important role in firming up the material base of Soviet motor works and related enterprises.

The dismantling of German motor manufacturing enterprises began in spring 1945 as a part of the Soviet authorities' policy of not only disarming both Germany's military potential and its economy, but also compensating in part for losses suffered by the Soviet Union's economy as a result of the war. Large-scale work on the confiscation of equipment from German industrial facilities was, at first, a continuation of the seizing of war trophies by divisions of the Red Army.

On 25 February 1945, the task of organizing the dismantling of German enterprises was assigned to the Special Committee of the State Defense Committee (GKO) and when the latter was abolished on 4 September 1945, it fell under the jurisdiction of the Council of People's Commissars (SNK) – the Council of Ministers of the USSR.¹⁴⁰

The first decisions on the dismantling of motor manufacturing equipment from German industrial enterprises in the Soviet occupied areas of Germany and Austria, for Soviet use, were made by the State Defense Committee in March and April 1945.¹⁴¹ Starting in April/May 1945, specialists sent by Narkomsredmash organized a large-scale inspection of German enterprises in the Soviet zone of occupation in Germany to find equipment that might be of interest to Soviet motor, car component, bearing and related factories.¹⁴² From the results of these inspections, representatives of Narkomsredmash and the enterprises introduced a proposal, approved by the Special Committee for the German Provinces, on the advisability of the dismantling of the appropriate German factories. After this, the question of handing over the required equipment to Narkomsredmash was examined by

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Russian State Archive of the Economy (RGAE). f. 1562. op. 329. d. 2155. ll. 10, 5–6; P. N. Knyshevskii: *Dobycha. Tainy germanskikh reparatsii*, Moskva 1994, 10.

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RGAE. f. 8115. op. 8. d. 378. ll. 97–96, 176–175; d. 379. ll. 200–197; d. 381. ll. 84–83, 89–87.

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ibid. d. 551. ll. 107, 152.

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ibid. l. 107; f. 1562. op. 329. d. 2155. ll. 10–11.

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ibid. f. 4372. op. 94. d. 1228. l. 164–165; f. 1562. op. 329. d. 2155. l. 11; M. I. Semiriaga: *Kak my upriaviali Germaniei*, Moskva 1995, 26–27, 102–103, 124–127; G. P. Kynin/I. Laufer: *Politika SSSR po germanskomu voprosu* (9 May 1945 – 3 October 1946.) // *SSSR i germanskii vopros. 1941–1949*. Documents from the Russian Federal Archive of Foreign Policy. Volume. II. 9 May 1945 – 3 October 1946, Moskva 2000, 18, 34–35.

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RGAE. f. 8115. op. 18 v. d. 85. ll. 78–75; op. 8. d. 385. ll. 61–59; op. 8. d. 508. ll. 121–119.

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ibid. d. 551. ll. 152, 162, 164, 166, 186.

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ibid. l. 152; f. 1562. op. 329. d. 2155. l. 10; f. 8115. op. 8. d. 551. l. 110.

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ibid. f. 1562. op. 329. d. 2150. ll. 68, 72–75; f. 8115. op. 18 v. d. 85. ll. 78–76; op. 8. d. 369. l. 259. Equipment from Auto Union's Wanderer factory in Chemnitz/Siegmarschönau and from the DKW factory in Zschopau was taken to Soviet motorcycle factories.

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RGAE. f. 1562. op. 329. d. 2150. ll. 67–77; f. 8115. op. 18 v. d. 85. ll. 78–76; op. 8. d. 385. l. 61–59; d. 508. ll. 121–119. The BMW factory in Eisenach was only partly dismantled, and was soviet property from 1946 to the beginning of June 1952. In 1945 equipment from the Solex carburetor factories in Berlin and Forst and the Pallas factory in Berlin was taken to the USSR and delivered to the Leningrad Carburetor Works. (RGAE. f. 1562. op. 329. d. 2150. l. 68, 70; f. 8115. op. 18 v. d. 85. l. 78, 75.)

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The GKO's decisions to dismantle equipment from automobile and other motor factories in Austria were taken in the period April 26 – July 28 1945. (RGAE. f. 8115. op. 8. d. 381. ll. 84–83, 89–87, 235–233, 271–269; d. 382. ll. 30–29, 203; d. 384. ll. 264–261; op. 18 v. d. 85. l. 75.)

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RGAE. f. 8115. op. 8. d. 384. ll. 258–254; d. 505. l. 170; op. 18 v. d. 85. l. 75.

a team from the Special Committee of the GKO in Moscow (from June 1945 the preparation of final proposals to be sent to Moscow was carried out by a team assembled by the Special Committee of the GKO's Representative for Germany).¹⁴³ After formation of the Soviet Military Administration in Germany (SVAG), which set about practical work on governing the Soviet zone of Germany in the middle of July 1945, plans for the dismantling of enterprises in the territory also became subject to agreement with this administrative body.¹⁴⁴ Plans were presented to the GKO, which then made the final decision about dismantling each facility.

The majority of resolutions on the dismantling of German motor and related enterprises were made by the State Defense Committee between May and the beginning of August 1945. In April 1946, the USSR Motor Industry Ministry granted the right to remove equipment to the USSR from a few more motor, car component and other specialized factories.¹⁴⁵ The dismantling and removal of equipment from German enterprises located in the Soviet zone of occupation to the USSR was supervised by Narkomsredmash officials in Saxony, Thuringia, and Berlin, as well as in Mecklenburg and Western Pomerania.¹⁴⁶ As a whole, the work of dismantling the equipment was coordinated by staff authorized by Narkomsredmash for Germany, who were based in Berlin and acting under the leadership of the Special Committee of the GKO's Representative for Germany. The dismantling of equipment from German factories was carried out to a tight schedule by forces of the Red Army with the help of representatives of the factories and the local population.¹⁴⁷

In the second half of 1945, equipment was dismantled at motor and related enterprises belonging to one of the largest German machine-building corporations, Auto Union. Equipment destined for Soviet motor manufacturers was quickly dismantled at factories belonging to Auto Union – Horch, Audi in Zwickau, a car component and motor assembly factory in Berlin (Spandau), a machine-pressing factory in Scharfenstein, and at other specialized enterprises that formed part of Auto Union.¹⁴⁸ During 1945/46, equipment was also sent to the USSR from factories in eastern Germany belonging to such well-known motor manufacturers as Opel (Brandenburg), Büssing-NAG (Berlin, Leipzig and Elbing), Phänomen (Zittau), Framo (Hainichen), Vomag (Plauen), and BMW (Eisenach). Along with motor enterprises in the Soviet zone of occupation, bodywork, car component and bearing factories were dismantled, which resulted in the acquisition of a wide range of valuable equipment.¹⁴⁹ Equipment was obtained in Austria from the Saurer, Austro-FIAT, Gräf und Stift factories in Vienna, from the Steyr factory (in the town of Steer), from the Steyr-Daimler-Puch factory in Vienna, which had produced engines for small cars, and from other machine-building factories.¹⁵⁰ Certain motor factories in the USSR also received equipment taken from some German industrial concerns in Czechoslovakia.¹⁵¹

In 1946/47, the USSR People's Commissariat for the Motor Industry (Narkomavtoprom USSR) and the USSR Ministry of the Motor Industry (Minavtoprom USSR) were also given the opportunity of dismantling equipment at three industrial enterprises located in the American zone of occupation. Equipment used in the production of airplane engines was confiscated from a subterranean factory belonging to Daimler-Benz in Heidelberg, from the Kugelfischer ball-bearing factory in Schweinfurt, and from a Norris-Zündlicht factory producing electrical equipment for cars, motorcycles and agricultural machinery in Nuremberg.¹⁵²

A considerable amount of the equipment taken from German enterprises was allocated for the expansion of production at the Gorky Motor Factory (GAZ) and the Stalin Motor Factory in Moscow (until October 1931: AMO; from 1 October 1931 to 26 June 1956: ZIS; from the end of June 1956: the I. A. Likhachev Moscow Motor Factory), as well as for the Ural'sk Motor Factory (in the town of Miass), which had been founded during the war, and for the reconstruction of the Iaroslavl' Motor Factory.¹⁵³ The arrival of the German equipment did much to replenish the manufacturing capabilities of the Moscow Small Capacity Motor Factory (known from 1930-1941 as the KIM Moscow Factory; from April 1944 to May 24 1945 as the Moscow Motor Spare Parts Factory; from October 1968 as the Lenin Komsomol Motor Factory), which had been, prior to the deliveries from Germany and Austria, in possession of only 262 machine tools. The factory, whose activities as a motor production enterprise had practically come to a halt during the war years, was again producing light vehicles by the beginning of 1947. By the beginning of 1948, 2,665 pieces of equipment were already in use at the Moscow Small Capacity Motor Factory (MZMA), of which 1,498 (56.2 per cent) had been taken from German motor, car component and related enterprises.¹⁵⁴

A large amount of German equipment was sent to factories that had been built in Dnepropetrovsk, Kutaisi, Minsk, Novosibirsk and Ul'ianovsk. According to data available from 1 January 1947, more than 30,000 pieces of machinery taken from German concerns had been delivered to functioning, reconstructed or newly built motor factories in the USSR. Each of the Soviet motor works received equipment from several German enterprises, including equipment that had been adapted to produce various components and parts.¹⁵⁵ Assembly, trailer, car component, bearing and other factories added considerably to their production capabilities as a result of equipment from Germany.¹⁵⁶

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For the partial equipping of one of the newly built Soviet motor works only equipment from the Daimler-Benz aviation engine factory in Heidelberg was used. Equipment from the Kugelfischer and Norris-Zündlicht factories (Schweinfurt and Nuremberg respectively) was delivered to the First State Bearing Works in Moscow and the Kaluzhskii Motorcycle Electrical Equipment Works. (RGAE. f. 8115. op. 8. d. 508. ll. 4-3; d. 584. ll. 40-39; f. 1562. op. 329. d. 4597. l. 120.)

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RGAE. f. 8115. op. 18 v. d. 85. ll. 67-66.

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ibid. l. 67, op. 8. d. 602. l. 24.

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ibid. op. 18 v. d. 85. ll. 66-64, 69, 78-75, 83-82; op. 8. d. 656. ll. 67-65. d. 508. ll. 4-3, 121-119.

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In accordance to Minavtoprom's data on 1 January 1947 its motor assembly and trailer factories received 4,608 pieces of equipment via the "special deliveries" in 1945-1946, which had been dismantled at German and Japanese industrial facilities. Factories producing electrical equipment for automobiles and carburetors received 3,189 pieces. Factories producing car parts received 1,775, motorcycle and bicycle factories received 6,560, and bearing factories received 3,530. (RGAE. f. 8115. op. 18 v. d. 85. ll. 83-82, 69, 64-63.) Equipment from Japanese enterprises was taken to only two motor assembly factories and one bearing factory.

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RGAE. f. 8115. op. 8. d. 369. ll. 251–248; d. 388. ll. 176–175; d. 508. ll. 77–76; d. 512. ll. 143–135.

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ibid. d. 388. ll. 176–175; d. 508. ll. 77–76; d. 512. ll. 143–135. ll. 140–135; op. 18 v. d. 85. ll. 62–61.

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ibid. op. 18 v. d. 85. ll. 82–81.

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ibid. ll. 82, 69–68; op. 8. d. 656. ll. 68–66.

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ibid. op. 8. d. 369. ll. 251–248, f. 1562; op. 329. d. 3381. ll. 122, 127; f. 8115; op. 8. d. 783. l. 82.

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ibid. f. 8115. op. 8. d. 783. ll. 82–80; op. 18 v. d. 216. ll. 11, 59–58, 103, 156–155, 167; d. 224. ll. 8, 113 etc.

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Along with a few other enterprises, the Novosibirsk and Dnepropetrovsk motor works were transferred to ministries and administrations that were mainly concerned with the production of armaments and military equipment, and were retooled.

When it came to the storage and commissioning of the German equipment delivered in April – May 1945, the Soviet motor enterprises were faced with resolving a series of complicated issues. Because of the absence of spare storage space at most of the factories, the newly arrived machinery was, in the beginning, often stored outdoors.¹⁵⁷ In addition, the installation and commissioning of a considerable amount of the equipment (especially at the new factories) required a significant amount of building and preparatory work. Orders from Narkomsredmash and the Minister for the Motor Industry regarding the necessity of solving the storage issue at various factories did nothing to improve the general situation in any meaningful way. A government resolution proposing a series of measures for speeding up the commissioning and improving the storage of the “special deliveries” was only made in October 1946. As part of the measures proposed by the USSR Council of Ministers to provide for the storage of “special delivery” equipment that had yet to be installed at a number of Minavtoprom enterprises (in Dnepropetrovsk, Kutaisi, Minsk, Novosibirsk, Ul’ianovsk, Ural’sk and elsewhere) organization of a temporary storage facility for goods from Germany began in autumn of 1946.¹⁵⁸

A certain amount of the equipment, which was lacking parts or had suffered damage while being dismantled or in transit, needed to be refitted, repaired, and often overhauled.¹⁵⁹ A considerable number of the machine tools, machines and equipment that had arrived from Germany and other countries (up to 30–40 per cent of this equipment in certain motor factories) turned out to exceed the requirements of, or was unsuited to, the factory that received it, and it had to be re-allocated.¹⁶⁰ Some of the “special delivery” equipment also had to be redistributed to other authorities. The commissioning of the “special delivery” equipment that had arrived at Narkomsredmash’s motor works, assembly plants, car component and other enterprises began in the second half of 1945, and the installation of the greater part of German equipment at Narkomsredmash’s factories was carried out during 1946–1948.¹⁶¹

The process of commissioning and distributing the remaining uninstalled equipment to other governmental authorities was just completed in the 1950s.¹⁶² The completion of this work was also delayed in part by the fact that the USSR Ministry of the Motor and Tractor Industry (Minavtotraktoroprom) had to distribute equipment between subdivisions of enterprises. It also had to organize the reinstallation of the equipment from the Novosibirsk, Dnepropetrovsk and other factories, which had been reallocated to other industrial ministries in accordance with a government resolution between October 1948 and the beginning of 1950.¹⁶³

The Soviet motor manufacturers' expectations regarding the delivery of equipment dismantled in Germany were only partly realized. In contrast to Soviet motor production, which had a very concentrated quality, German motor manufacturing was organized on the basis of cooperation between motor factories and a great number of parts suppliers. The bulk of the equipment from most of the dismantled German factories was unspecialized machine tools.¹⁶⁴ Such tools were less productive than specialized equipment but, in the hands of skilled labor, were capable of being put to use in the production of the new models the market demanded. These were produced, as a general rule, in limited editions (in the eastern part of Germany the only factories that operated on the production line system were the Audi factory in Chemnitz and the Opel truck factory in Brandenburg).¹⁶⁵ The nature of the German equipment (the considerable number of multi-purpose machine tools and the lack of other kinds of metalworking equipment) presented considerable problems to the Soviet motor manufacturers in terms of expanding their production capacities. Thanks to the deliveries from Germany, practically all the functioning, reconstructed and newly built Soviet motor factories received the required (and sometimes more) multi-purpose metalworking equipment, which on the whole was most effectively used in the auxiliary tool pressing and repair shops. It only partly contributed to an increase in the production capacity of the main mechanical shops which, above all, needed highly productive metalworking equipment.¹⁶⁶

The greatest difficulties resulted from the severe shortage of equipment suitable for supplementing or expanding the factories' forging, pressing and casting shops. The forging, pressing and casting equipment that the Soviet motor industry needed so badly to bring its production up to scratch and increase its capacity was, for the most part, to be found at specialized enterprises in the western part of Germany, close to the sources of raw materials.¹⁶⁷ Regardless of the keen interest Narkomsredmash and the Ministry of the Motor Industry had in the dismantling and transferring of the appropriate industrial facilities to the Soviet Union, the Soviet motor factories did not get such equipment from the western zone of occupied Germany.¹⁶⁸ On the whole, the level of deliveries from western Germany (in fact, only from the American zone of occupation) was quite modest. A large part of the equipment taken was allocated to Minavtoprom/Minavtotraktoroprom factories that were not involved in automobile production.

Among the facilities in the Soviet zone of occupation whose technology was appropriated with the aim of expanding the production capacity of Soviet motor manufacturing, it is worth making special mention of such factories as Ambi-Budd in Berlin and Friedrich Folk in Schwarzenberg.¹⁶⁹ The metalworking and other equipment that was most vital for the integrated tooling of production and the manufacture of new models

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RGAE. f. 8115. op. 8. d. 550. l. 145;
op. 18 v. d. 85. ll. 80, 67–65.

_ 165
ibid. op. 8. d. 550. ll. 145, 164, 181.

_ 166
ibid. op. 18 v. d. 85. l. 67–64; d. 35.
ll. 4–2, 31–30, 92.

_ 167
ibid. op. 8. d. 550. l. 145; op. 18 v. d.
85. ll. 81–80, 67–64.

_ 168
ibid. op. 18 v. d. 85. l. 80.

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The Ambi-Budd factory in Berlin was a subsidiary of the American company Budd, founded by the pioneer of the large-scale production of all-metal automobile bodywork, Edward G. Budd. See: A. C. Sutton: *Western Technology and Soviet Economic Development. 1945–1965*, Stanford 1973, 195; *Entsiklopediia avtoznamenitostei. Konstruktory. Dizainery. Predprinimateli*, Moskva 2000, 8–9.

_ 170
RGAE. f. 8115. op. 18 v. d. 85. ll. 81, 78, 67; op. 8. d. 505. ll. 102, 99.

_ 171
ibid. ll. 81, 67. It would appear that this is about the die engineering shop at the Stalin Motor Works in Moscow. See also: RGAE. f. 8115. op. 8. d. 505. l. 99.

_ 172
RGAE. f. 8115. op. 18 v. d. 85. ll. 81, 76, 67.

_ 173
Once licenses for export to the USSR ceased to be issued in 1948, deliveries of equipment from the USA were effectively ended.

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RGAE. f. 8115. op. 18 v. d. 85. l. 80.

_ 175
L. M. Shugurov: *Avtomobili Rossii i SSSR. Part One, Moskva 1993*, 176, 188-191.

was sent to the largest Soviet motor factories – GAZ and ZIS. The pressing and welding equipment from Ambi-Budd’s bodywork factory was used to considerably increase the production capacity of the pressing and bodywork shops at the Stalin Motor Works in Moscow. This was partly responsible for an increase in production of between 30,000 and 35,000 cars, based on the pressing equipment in the pressing and bodywork shops at the Stalin works.¹⁷⁰ Equipment taken from the Ambi-Budd factory was also put to use at ZIS in expanding its cold pressing shop.¹⁷¹ The delivery of equipment from the Friedrich Folk stamping factory meant that the Gorky Motor Works could substantially improve its stamping shops, and helped in solving the problem of preparing the tooling (including large bodywork stampings) needed for the production of new car models. The capacity of the factory’s stamping shops’ heavy, specialized equipment doubled as a result.¹⁷²

Until the beginning of the trade restrictions imposed on the USSR by the American administration in 1948, Soviet motor factories were partly able to satisfy the demand for the highly productive equipment required for large-scale assembly-line production due to deliveries from the USA, which were, however, quite meager.¹⁷³ The Soviet Union also became capable of producing certain types of equipment itself. Nonetheless, the problems that Soviet motor works were experiencing in improving their production facilities were still not solved. On the whole, regardless of the “special deliveries” and the arrival of domestically produced and imported machine tools, machinery and equipment, the motor industry continued to experience a shortage of up-to-date, high-production special and component machine tools, as well as forging and pressing, welding, power, tool-making and casting equipment.¹⁷⁴

While building up their industrial production capacity soon after the end of the war, the main Soviet motor works began large-scale work on producing new car models. Since the majority of Soviet post-war trucks and light vehicles had been designed during the war years, and also because Soviet motor manufacturers preferred to rely on American engineering experience, the copying of German models was not particularly widespread. In the beginning, German ideas were partly used in the construction of the chassis of the M-20 “Pobeda” (“Victory”), the prototype of which was built in November 1944. The front-wheel independent suspension of the “Pobeda” was copied from the German Opel-Kapitan of 1939. The Pobeda, however, was on the whole an original Soviet design, adapted for use in difficult climatic conditions and having a high degree of maneuverability.¹⁷⁵

The production of a replica of a German car in the USSR was only implemented at one of the motor enterprises. After the end of the war, the Moscow Small Capacity Motor Factory could not produce a modern model that would satisfy mass demand, and in August 1945 it was decided that the Soviet small car would be a copy of the German Opel-Kadett K-38.¹⁷⁶ The construction of this car was quite progressive, with front-wheel independent suspension like the Dubonnet, hydraulic braking, a load-bearing four-door body, etc., and it was suited to mass production methods.¹⁷⁷ The tradition of following American methods, which had come to be the case in the late 1920s and early 1930s, was not seriously altered, since Opel had become part of General Motors (USA) at the end of the 1920s, and actively used American methods that had been developed for assembly-line production. The new Soviet small car was named the Moskvich-400, and the blueprints for it were made by the designers at MZMA from examples of the Opel-Kadett that were in their possession at the factory. They also received 629 pages of blueprints for the Opel-Kadett K-38, which were also used in the design of the Moskvich-400. At the same time, German technological documentation was not used in the production of the Moskvich, with the production equipment being developed by MZMA's own specialists, and later repeatedly refined.¹⁷⁸

The first Moskvich-400 rolled off the production line on 4 December 1946, and the industrial production of the model began in January 1947.¹⁷⁹ The Moskvich-400, like its prototype, was equipped with a 1,074cc, four-cylinder engine producing 23 horsepower at 3,600 rpm. The car could achieve a speed of 90 kmph (56 mph) and would run for 100 km (62 mi.) on 9 liters (2.4 US gal.) of fuel.¹⁸⁰

Construction, experimental and testing work on modernizing the fundamental aspects of the Moskvich were already underway at MZMA in 1946, and in 1949, thanks to the installation of a fine oil filter, the engine's lubrication system was improved.¹⁸¹ The diameter of the crankshaft journals became uniform, and the bearing liners were replaced by interchangeable steel inserts (with a lead-base babbitt).¹⁸² As of August 1950, with the aim of reducing fuel consumption, the car's engine was fitted with a simpler and more reliable carburetor (K-25) designed by the Leningrad Carburetor Factory, in which automatic regulation of the air-fuel mixture was achieved by pneumatically inhibiting the flow of fuel from the main nozzle.¹⁸³ In May 1951, the Moskvich-400 began to be equipped with a new gearbox with synchronizers for engaging second and third gears, and a gear stick on the steering column.¹⁸⁴ As of December 1951, the car's engine was equipped with a new bell-type pickup in the oil pump, and a water pump in the cooling system with ball bearings and

¹⁷⁶ RGAE. f. 8115. op. 8. d. 385. ll. 324, 301.

¹⁷⁷ *ibid*; Shugurov, *Avtomobili Rossii* 192, 194.

¹⁷⁸ *Entsiklopediia avtomobilei. Firmy. Modeli. Konstruktsii*, Moskva 1999, 276; RGAE. f. 8115. op. 8. d. 413. ll. 7, 12–14; d. 534. l. 10, d. 739. l. 54. d. 413. ll. 12, 15–16, 19, d. 534. ll. 11–12; Shugurov, *Avtomobili Rossii* 192.

¹⁷⁹ M. A. Kartsman: *Iasinovskii M. I. a. Imeni Leninskogo komsomola. Dela i liudi avtozavoda*, Moskva 1976, 75; L. B. Vasiliev: *Moskovskii zavod malo-litrazhnykh avtomobilei // Avtomobilstroenie SSSR*, Moskva 1967, 143.

¹⁸⁰ Vasiliev, *Moskovskii zavod* 143; Shugurov, *Avtomobili Rossii* 192.

¹⁸¹ RGAE. f. 8115. op. 8. d. 534. ll. 18–19; op. 3. d. 120. l. 12.

¹⁸² Shugurov, *Avtomobili Rossii* 195. Changing the bronze bearing liners for steel ones was, above all, done with the aim of economizing on bronze alloy, which was in short supply (the shortage of non-ferrous metals and their alloys that were required by various branches of industry was quite notable at the time).

¹⁸³ In 1953 it was replaced by a modernized carburetor (the K-25-A). (RGAE. f. 8573. op. 3. d. 303. l. 9); E. A. Chudakov: *Sovetskii avtomobil' Moskva* 1952, 221.

¹⁸⁴ V. I. Anokhin, *Sovietskii avtomobili*, Moskva 1954, 430.

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RGAE. f. 8115. op. 8. d. 1077. l. 13. d. 1213. l. 10; Shugurov, *Avtomobili Rossii* 195; Work on strengthening the bodywork of the Moskvich was also carried out in 1953-1954.

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RGAE. f. 8115. op. 8. d. 1213. l. 10.

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ibid. l. 9-10; RGAE. f. 8115. op. 8. d. 1213. l. 9-10; op. 2. d. 1142. l. 30; f. 8573; op. 3. d. 303. l. 9; *Avtomobil' 'Moskvich'. Instruktsiia po ukhodu. Izdanie vos'moe*, Moskva, 1955, 6; Shugurov, *Avtomobili Rossii* 195.

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Shugurov, *Avtomobili Rossii* 193.

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RGAE. f. 8115. op. 8. d. 692. l. 13.

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Shugurov, *Avtomobili Rossii* 194, 195.

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RGAE. f. 8115. op. 8. d. 551. ll. 147-148, 100-102, 50-51, d. 739. ll. 54-53.

_192

ibid. d. 551. l. 148.

_193

ibid. f. 1562. op. 329. d. 2155. ll. 5-6; f. 8115; op. 5. d. 85. ll. 1-2.

self-adjusting gasket. In 1952 the rear axle and various parts of the bodywork were reinforced.¹⁸⁵ The car's electrical and ignition systems were made more reliable with the introduction of a new generator, distributor and breaker-point unit.¹⁸⁶ Between 1952 and 1954 the car's engine was also fundamentally modernized. The pistons' and cylinders' resistance to wear and tear was improved by introducing short sleeve pipes made of a special anti-corrosive cast iron inserted in the cylinder block, as well as porous chromium plating of the top piston rings. Thanks to changes in the design of the cylinder head, camshaft and intake manifold, the engine's power was increased to 26 horsepower.¹⁸⁷ In February 1954, the modernized model was named the Moskvich-401.

In 1947 MZMA started to produce the Moskvich-400-422 van with wood and metal bodywork and, in 1949, a convertible version of the base model, which was named the 400-420A.¹⁸⁸ In autumn 1948 MZMA also began the production of the Moskvich ambulance, which differed little from the basic model (being equipped with an additional warning light, medical insignia on the bodywork, and improved trimmings in the interior).¹⁸⁹ From December 1947 to April 1956, MZMA built 247,439 Moskvich-400, Moskvich-401A and other modifications of the design, including 17,742 400-420A convertibles (produced until 1952), 11,129 model 400-422 vans, and 2,562 chassis and engines which the Food Industry Ministry's body works used in the production of a more lightweight van with a wooden frame and metal panels.¹⁹⁰ In real terms, the Moskvich was the first Soviet car that was produced, above all, to satisfy the demand of individual consumers, and it was very much in demand.

When the war had ended, Narkomsredmash-Minavtotraktorprom also took steps to organize the study and use of German technical potential in order to develop the Soviet motor industry along with other related branches of industry. From September to October 1945, in a few towns in the Soviet zone of occupation, technical and design agencies were set up where a host of German engineers, technicians and workers worked under the direction of Soviet specialists, who had been sent to Germany by Narkomsredmash.¹⁹¹ In spring 1946, another three similar technical research divisions were created in the Soviet zone of occupation. Most of these agencies worked on-site at the dismantled motor works and related installations.¹⁹² The coordination of Soviet entities involved in the study and utilization of German techniques, as well as the financing and supply of the technical and design agencies in the Soviet zone of occupation, was carried out by the Special Committee of the GKO's Representative for Germany.¹⁹³

The actual work of organizing the activities of agencies involved with the motor and related industries that had been set up in the Soviet zone was carried out by Narkomsredmash-Minavtoprom's Representative for Germany's deputy, who was responsible for the study of German science and technical matters.¹⁹⁴ The first task with which these agencies were charged was the acquisition, restoration and delivery to the USSR of technical documentation, and assembly of a summary of German engineers' and technologists' experience and knowledge of the organization and construction of car production, parts production, and other details.¹⁹⁵ Among other work connected with the study of German science and technology, representatives of Narkomsredmash's organizations, with the help of German specialists, collected blueprints of carburetors, electrical systems, bearings and other industrial products, along with technological documentation on the manufacture of such products.¹⁹⁶

A large number of the blueprints pertaining to the motor and related industries that were necessary turned out to be impossible to find, and it was thus necessary to recreate technical documentation from existing sketches, catalogues and examples of the parts concerned.¹⁹⁷ Smelting stamps, blueprints and master tooling for the bodywork of the Moskvich were designed by the agency working at the Friedrich Folk stamping factory in Schwarzenberg.¹⁹⁸ Engineers of the technical agency for electrical distribution systems in Chemnitz prepared blueprints of the electrical equipment for the same model, which were used to modify and improve technical documentation that had been produced in parallel by specialists at the Muscovite factory for electronic equipment of cars and tractors (Moskovskii zavod avtotraktornogo elektrooborudovaniia, ATE-1 factory) in the USSR.¹⁹⁹ After completing their planned work, many of the technical and design agencies were dissolved or reorganized during 1946.²⁰⁰

At the end of 1946, the Scientific and Technical Department of Minavtoprom was founded in Germany, which incorporated the engines agency in Berlin, the automobile and motorcycles agencies in Chemnitz, the automobile technology agency in Leipzig, and the bodywork agency in Schwarzenberg.²⁰¹ Minavtoprom and Minavtotraktoroprom approved specific plans for the operations of these agencies for 1947–1948. The plan for the work of the Scientific and Technical Department of Minavtotraktoroprom in Germany for 1949 was approved by the Council of Ministers of the USSR.²⁰²

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ibid. f. 8115, op. 5, d. 85, ll. 1–2;
op. 8, d. 552, l. 99, d. 547, l. 63.

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ibid. op. 8, d. 551, ll. 148–149, 101,
d. 739, ll. 54–53.

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ibid. d. 739, ll. 54–53, d. 551, ll.
100–101, d. 547, ll. 146–144.

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ibid. d. 551, ll. 101–102, 149–150,
d. 739, ll. 54–51.

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ibid. d. 551, ll. 149–150, d. 739,
ll. 52–51. In documents kept
in the Narkomsredmash–
Minavtotraktoroprom archives on
the adoption of German science
and technical processes there is
a lack of information concerning
the degree to which the work
done by the bodywork agency
at the Friedrich Folk factory was
put to use in the organization
of production of the Moskvich
(Opel-Kadett K-38) in the USSR.
However, on the basis of indirect
information, one might postulate
that corresponding die tooling
was prepared there based on
blueprints, and that this was
intended for the Moscow Small
Capacity Motor Factory.
(RGAE, f. 8115, op. 3, d. 141, ll. 46a,
84; op. 18 v. d. 164, l. 35.)

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RGAE, f. 8115, op. 8, d. 551, l. 149,
d. 547, ll. 145, 139.

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ibid. d. 739, l. 53.

_ 201

ibid. op. 3, d. 141, ll. 3, 19.

_ 202

ibid. l. 19; op. 8, d. 797, ll. 226–221.

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ibid. op. 8. d. 512. ll. 116–114, d. 655. l. 250; f. 4372; op. 96. d. 231. ll. 7–9.

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ibid. f. 8115, op. 3. d. 141. l. 19; op. 8. d. 740. ll. 249–248.

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ibid. op. 8. d. 551. l. 148, d. 552. ll. 96–99; d. 547. ll. 27–21, d. 740. l. 36–32; d. 797. ll. 224–221.

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The basic work led to parts for the Soviet ZIS-120 carburetor engine with water-cooling, which was intended for the ZIS-150 truck, vehicles with enhanced manoeuvrability, and others.

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RGAE. f. 8115, op. 8. d. 552. ll. 97–98, d. 740. ll. 36–35, 33, d. 655. ll. 249–247, 243–241, d. 626. ll. 13–21, d. 738. ll. 14–34, d. 1005. ll. 141–136; op. 3. d. 141. ll. 20–22, 27–37, 39, 43–44.

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ibid. op. 8. d. 655. ll. 247, 241–240, d. 626. ll. 6–13; d. 740. l. 34, d. 738. ll. 47–59, d. 1005. ll. 135–134; op. 3. d. 141. ll. 23–25.

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ibid. op. 3. d. 141. ll. 22–23.

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ibid. op. 8. d. 655. ll. 247–246, 240, d. 626. ll. 26–30, 125–133; d. 740. ll. 34–33, d. 738. ll. 64–69, 88–93, 130–153, d. 1005. ll. 136–133; op. 3. d. 141. ll. 26, 37–39.

In accordance with a resolution by the USSR government (30 September 1946), functions connected with day-to-day operations, financing and acquisition of resources for the scientific and technical organizations representing Soviet ministries and entities in the Soviet zone of occupation were passed from the Special Committee on Germany to SVAG and a specially formed department under its auspices, the Administration for the Study of Scientific and Technical Achievements, in Germany.²⁰³ From October 1948, Minavtotraktoroprom handled the financing of the scientific and technical departments remaining in Germany.²⁰⁴

As of 1946, the scope of work undertaken in Germany by entities subject to Minavtoprom and Minavtotraktoroprom was substantially broadened. The main thrust of their efforts became the design and preparation of prototype motor parts, along with test equipment, installations, tools and other laboratory equipment necessary for the production of reliable high-performance products.²⁰⁵

The Berlin engine agency conducted work on a carburetor and a Diesel engine with air-cooling, along with other equipment designed for cargo-carrying vehicles.²⁰⁶ Specialists from this agency set up cold, tropical and dust chambers for testing engines in low (to –60°C) and high (to 70°C) temperatures, and also in extremely dusty conditions. They also set up equipment to test engines and carburetors, equipment to research the ignition and detonation processes in carbureted engines, engines with direct fuel injection, and other products.²⁰⁷

The automobile agency in Chemnitz, made up of specialists from Auto Union, made prototypes of so called “piston-ported” engines based on the Moskvich (Opel-Kadett K-38) and ZIS-150 engines.²⁰⁸ In the prototypes of these engine designs, the gas distribution valve mechanism was replaced by the positioning of a nitration cylinder with intake and exhaust channels for each cylinder in the cylinder head parallel to the crankshaft. Cast iron shoes with gasket rings were used to seal the valve from gases.²⁰⁹ The Chemnitz automobile agency was also working on direct injection of fuel into the engine’s cylinders (among others, an experimental rotation and plunger pump was designed and built with a fuel injection pressure of 60–62 atmospheres in a 150 horsepower six-cylinder engine), making equipment to test cars, making electrical equipment for cars, motorcycles and tractors, and other parts.²¹⁰

At the technological agency in Leipzig, a gear-cutting laboratory was assembled that became the base for making and testing prototype gearboxes, rear axles, and steering mechanisms.²¹¹ Among other work conducted by the Leipzig agency was the design of an automatic pipe-welding machine and a machine for welding car body sheets, along with the gathering of material on techniques for producing piston rings by thermofixation processes, and the preparation of materials on powder metallurgy and deep carbon nitriding.²¹² The bodywork agency in Schwarzenberg worked on the design and development of experimental bodywork for the Moskvich, designed and built a prototype of a utility truck's bodywork, one with six seats for a taxi based on the Moskvich, and modernized standard bodywork with more up-to-date designs.²¹³

The chosen system of organization, in which similar work was being carried out by technical and design subdivisions that were cut off from the main Soviet research centers and factories was, however, on the whole ineffective. The technical administration of Narkomsredmash-Minavtotraktoroprom did not succeed in establishing active cooperation between its subdivisions in Germany and the corresponding Soviet scientific and research institutes and leading motor factories.²¹⁴ The nature of the work undertaken by the specialists at the relevant agency was, as a rule, dictated by the scientific and technical department in Germany itself.²¹⁵ Also, no system was set up in time to provide for the sharing of technical information gleaned in Germany.²¹⁶ The number of personnel working for the Scientific and Technical Department of Minavtotraktoroprom in Germany and the technical agencies under its auspices was very small. In 1947, 24 Soviet specialists and support staff were employed in such capacities, and this number was reduced to 15 in 1948.²¹⁷ At the end of March 1949, the number of Soviet personnel in the scientific and technical subdivisions of Minavtotraktoroprom was cut to nine.²¹⁸ The specialists in Minavtotraktoroprom's Scientific and Technical Department did not, as a rule, have information concerning the manufacturing capabilities of the relevant Soviet factories or their thoughts concerning the design and construction work required.²¹⁹ For their part, the motor factories and related scientific institutes viewed the activities of the Scientific and Technical Department in Germany and its agencies with a degree of skepticism.²²⁰ Such a situation might, in part, explain the fact that Soviet engineers, who considered German cars to be complicated and expensive, mostly chose instead to concentrate on American methods and their own experience. General reports arriving from Germany often did not contain new information.²²¹ The management of some enterprises (above all the Stalin Motor Works in Moscow) also considered work conducted in Germany on the construction of certain components (engines with air cooling for the ZIS-150, for example) to be inappropriate.²²² Some of the work carried out

– 211
ibid. op. 8. d. 655. ll. 246–245, 240–239, d. 626. ll. 133–142, d. 740. ll. 34–33, d. 738. ll. 70–87, 181–204; op. 3. d. 141. ll. 39–40.

– 212
ibid. op. 8. d. 655. l. 245, 239, d. 626. ll. 152–156, d. 740. l. 33, d. 738. ll. 214–231; op. 3. d. 141. ll. 40–41, 44.

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According to information from Minavtotraktoroprom, data from tests carried out on the utility truck's bodywork was of assistance to the Moscow Small Capacity Motor Factory in improving the construction of their bodywork. (RGAE. f. 8115. op. 8. d. 739. ll. 52–51.); RGAE. f. 8115. op. 8. d. 551. ll. 149–150, d. 655. l. 246, d. 626. ll. 47–50; op. 3. d. 141. ll. 42–43.

– 214
ibid. op. 8. d. 547. ll. 63–62, 192–191; d. 655. ll. 230–227; d. 654. ll. 20–18, 16–15.

– 215
ibid. op. 3. d. 141. l. 85.

– 216
ibid. ll. 80–81, 100.

– 217
ibid. f. 4372. op. 96. d. 231. l. 10; d. 230. l. 2.

– 218
ibid. f. 8115. op. 8. d. 1005. l. 34; op. 3. d. 141. l. 83.

– 219
ibid. op. 8. d. 740. ll. 77–76 etc.

– 220
ibid. op. 3. d. 141. l. 85; op. 8. d. 547. ll. 203–201.

– 221
ibid. op. 3. d. 141. l. 100.

– 222
ibid. op. 8. d. 739. l. 183; d. 740. ll. 77–76.

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In order to use such bodywork it was necessary to considerably increase the power of the engine and to enlarge the wheel base of the Moskvich, as well as to change the differential gear ratio, strengthen the rear springs, and so on. In all, attempting to create a taxi based on a small capacity car was completely irrational when there were considerably more powerful light vehicles in the USSR. (RGAE. f. 8115. op. 3. d. 141. ll. 42–43.); RGAE. f. 8115. op. 3. d. 141. ll. 98–99, 102.

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ibid. l. 19.

_ 225

ibid. ll. 46a–53.

_ 226

ibid. op. 8. d. 739. ll. 54–50; d. 740. ll. 2–1. op. 3; d. 141. ll. 46a–53.

_ 227

ibid. op. 8. d. 739. ll. 145–144.

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For example, extremely valuable information regarding the construction of internal-combustion engines that had been acquired in the Soviet aviation industry during the 1930s and 1940s was inaccessible to those engaged in the construction of automobiles. (See.: Shugurov, *Avtomobili Rossii* 245.)

in Germany (the best example being the construction of the heavy 6-seater body for the small-capacity Moskvich, which was proposed to be used as a taxi) was subjected to justified criticism by Soviet motor manufacturers.²²³

Minavtotraktoroprom's Scientific and Technical Department in Germany was dissolved in October 1949.²²⁴ Prototype parts, testing equipment and machine tools, which had been produced by the technical and construction agencies that came under its auspices, were taken back to the USSR. They became the property of Minavtotraktoroprom's scientific research organizations and enterprises in the motor industry.²²⁵ In evaluating the activities of Narkomsredmash-Minavtotraktoroprom's scientific and technical subdivisions in Germany, it is worth pointing out that the acquisition by the Soviet Union of German technical documentation undoubtedly sped up the production of the Moskvich-400. In addition, laboratory equipment created by the technical agencies in Germany (which was subsequently taken to the Soviet Union) did much to consolidate the test base of research centers and the various factories affiliated with Minavtotraktoroprom.²²⁶

Regardless of the impressive amount of work carried out, however, the activities of the scientific and technical subdivisions of Narkomsredmash-Minavtotraktoroprom in Germany did not, on the whole, have a significant influence on the development of Soviet motor manufacturing. The overwhelming majority of engineering developments made in Germany went unused. Work in the USSR on the study of German patents also failed to bring any significant results. They were, for the most part, used by Soviet specialists for the purpose of information gathering.²²⁷

On the whole, German scientific and technical potential was far from fully used in the development of Soviet motor manufacturing. At the same time, the motor industry also continued to be quite slow to implement its own designs. In the conditions of severe political and military confrontation that arose soon after the end of the Second World War, the priority of Soviet scientific and technical policy became the manufacture of armaments and military technology that would guarantee military parity between the USSR and the USA (nuclear weapons, missiles, and other high-tech projects). In such circumstances, the civil sector was considerably deprived of the material, financial and intellectual resources that were necessary for the creation of viable designs and the dynamic renewal of manufacturing. And, because of the secrecy of the regime at the time, the civil sector did not have access to information about the latest developments that had been made in the defense sector.²²⁸

Regardless of the difficulties, however, the Soviet motor industry was able to achieve some notable successes in the course of the first post-war five-year plan. The production of trucks continued to be a priority but, beginning in 1948, there was a visible tendency toward growth in the light automobiles' share of the USSR's overall production. The record for pre-war production of automobiles in the USSR, which had been achieved in 1939, was substantially exceeded in 1949 (by 30.7 per cent overall, and by 69.2 per cent for light automobiles).²²⁹ During the period from 1946 to 1950, the volume of production in the USSR increased annually by an average of more than 37 per cent (average annual growth rate).

Nonetheless, the manufacturing resources of Soviet motor factories were incapable of providing a reliable foundation for long-term economic growth. In order to provide for the further expansion of the motor industry's production and the improvement of its technical standards, it was essential to build up its industrial manufacturing capacity considerably, to introduce new high-production equipment on a massive scale, to master modern technical processes, and to design reliable and economical new trucks and light automobiles. In order to do all this within the framework of the Soviet economic system would require decisions on the part of the government to make the necessary financial and material resources available, and these were not made in time. The opportunities and incentives for enterprises to develop independently within the existing economic mechanism, based on direct planning, centralized allocation of resources, and the insular Soviet economic space, were extremely limited. Under the prevailing conditions, the USSR's automobile factories were doomed to fall far behind the leading manufacturers of the industrially developed powers. <<

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Kratkii avtomobil'nyi spravocnik.
Izdanie desiatoe, Moskva 1985, 6.

07

Burghard Ciesla

**Difficult Relations.
German Automobile Construction and the Economic Alliance in
Eastern Europe, 1945-1990**

For nearly a quarter of a century, the GDR produced two almost unchanged types of vehicle – the Trabant P 601 and the Wartburg 353. From the 1960s onwards, these two models in essence embodied the East German variation of mass motorization with its typical deficiencies and shortages. Generally speaking, from the very start GDR automobile production could not keep pace with the growing mobility needs of the population. Demand permanently exceeded supply. During the GDR era, the Trabant and Wartburg were already a symbol of the very modest innovative strength of East German automobile production and of the East German economic system which was dogged by the problems of scarcity. During the final decade of the GDR, these vehicles were a constant reminder of the chasm that had opened up between East and West.²³⁰

This contrasted sharply with the situation in the first half of the 1960s, when the Trabant 601 and the Wartburg 353 were unveiled to the public. At that time, these two models were undoubtedly innovative vehicles of modern design: new materials were successfully used to build the Trabant, which was the first series-produced car in Germany with a plastic body, while the Wartburg with its angular profile indeed represented contemporary design lines and was most definitely state-of-the-art. Then, no one mocked these two cars; on the contrary, they represented technical progress in their respective classes. Although automobile construction in the GDR developed more slowly than in the West and the decision against developing vehicles with four-stroke engines taken at the end of the 1950s proved to be a handicap, nevertheless the industry had by no means yet lost its innovative capabilities in the 1960s. As far as organizing production was concerned, attempts were made right from the start to harness the benefits of full-scale series production and efficient manufacturing processes. Automobile production in the GDR, as in the West, adopted the Fordist approach. But why did international competitiveness begin to fail from the 1960s onwards, and why did automobile construction continue to underperform?²³¹

There were many reasons for the poor performance of GDR automobile production. One critical factor was the massive erosion of assets by the Soviet victorious power following the war; another was the politically and ideologically motivated dearth of investment together with planned economy conditions which weakened the tradition-rich history of automobile production in the GDR. Planned economy principles meant commodity undersupply, uncoupling from the world market, constant capacity and supply bottlenecks and a lack of foreign exchange. To overcome these problems, GDR automobile production turned early to cooperation with the “Council for Mutual Economic Assistance” (Comecon). East German automobile manufacturers began looking for strong partners in Comecon as early as the 1950s with a view to setting up joint cooperation programs to master the upcoming

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Reinhold Bauer:
Pkw-Bau in der DDR. Zur
Innovationsschwäche von
Zentralverwaltungswirtschaften,
Frankfurt am Main 1999, 15.

_ 231

DDR-Geschichte in Dokumenten.
Ed. by Matthias Judt, Berlin
1997, 87f.; Werner Abelshäuser:
Deutsche Wirtschaftsgeschichte
seit 1945, München 2004, 370ff.

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Valentina Fava presented first research findings in this context at "The Automobile Revolution" conference in Moscow in February 2007, cf. her contribution in this publication.

tasks and demands. For decades, however, the socialist economic community proved inefficient and extremely difficult. In the end, cross-border cooperation within Comecon failed.

This paper outlines the fundamentals of Comecon cooperation for GDR automobile production between 1950 and 1990. However, to understand this issue it is important to first consider the situation at the end of the Second World War and the difficult conditions facing automobile production at the time the German Democratic Republic was established. This will be followed by an outline of Comecon cooperation efforts with reference to automobile production in the GDR. It should be noted at this point that there are still big gaps in research on this topic. While some studies on GDR automobile construction and Comecon relations compiled from official records have been published, comparative research based on such documentation from Russia, Poland or Czechoslovakia either does not exist or is still in its infancy. This is particularly relevant for our knowledge about how Comecon specialization agreements – in automobile construction, for example – developed and what specific combinations of interests were involved. Different development levels in the respective Comecon countries inevitably resulted in different interests and, in this context, the motivation behind national interests as well as the extent to which these interests were pushed through in Comecon is still largely unexplained. The fundamental question as to whether, and if so, on what scale, economic integration could develop on this basis also still remains unanswered. The automobile sector is likely to prove a very productive source for researching the answers to these questions.²³²

In 1938 some 27 percent of the German Reich's passenger car final assembly, almost 40 percent of truck manufacturers and almost 30 percent of motor cycle builders were located in what was later to become the Soviet Occupation Zone, or the GDR. Most automobile businesses were to be found in the Saxony and Thuringia region. All of them played a key role in German armaments and war production. Furthermore, production capacity at many of these firms had been modernized and expanded post-1938 so that their percentage share at the end of the war was even higher. The automobile industry in central Germany was in some cases severely affected by Allied bombing.

A not inconsiderable share of production equipment was destroyed by the Anglo-American air raids in 1944/45. The Bayerische Motorenwerke (BMW) plant in Eisenach/Thuringia reported damage to some 60 percent of the buildings and 35 percent of machinery and equipment. 75 percent of buildings and 20 percent of machine tools were destroyed at the Wanderer-Werk of Auto Union AG in Chemnitz. In contrast, Audi

and Horch in Zwickau, Saxony, remained relatively intact. Only around 15 percent of the buildings and 5 percent of machine tools were damaged. Apart from damage to production plants, the automotive supplier industry was also badly affected. Moreover, American troops initially occupied some key automobile plants in Thuringia and Saxony at the end of the war. There was a severe loss of know-how when these withdrew as agreed at the end of June 1945, with automobile experts departing for the West zone and taking their knowledge with them. This migration continued during the Cold War until the Wall went up in 1961. Nevertheless, it may be assumed that in May 1945 most automobile firms would have been in a position to resume production within a short space of time.²³³

An entirely different development, however, emerged for the automobile industry in the summer of 1945. When the Soviet occupying power took over the administration of its occupation zone in early July 1945, it had been agreed with the other Allies that one of the first steps would be to destroy German armaments potential. The aim was to incapacitate the former aggressor. Moreover, Soviet industry needed rebuilding after the massive war losses. Central German automobile plants therefore belonged to those sectors of industry particularly hard hit by Soviet demands for dismantling and reparations. With the exception of the BMW plant in Eisenach and Sächsische Waggonbaufabrik Werdau, which also made car bodies, the Soviet occupying forces cleaned out all automobile businesses and plants, literally taking everything with them, from window frames to light switches. Some 80 percent of the capacity in the automobile industry was lost through the Soviet dismantling of industrial equipment (status: 1948). Automobile businesses based in Saxony were hit especially hard. Horch in Chemnitz had emerged from the war largely undamaged; here, some 3,800 machines, representing 98 percent of the entire machine park, had been dismantled by March 1946. The dismantling crews proceeded in a similar fashion at Audi. In general terms, this action meant that the vast majority of automobile businesses in the Soviet Occupation Zone were not in a position to resume production swiftly.²³⁴

Although the BMW plant in Eisenach was on the dismantling list, developments here took a different turn. In fall 1945, the automakers in Eisenach were not prepared to accept the total dismantling of their equipment without first putting up a fight. In October 1945 a delegation was dispatched to present Marshall Zhukov, Commander-in-Chief of SMAD (Soviet Military Administration of Germany), with the final remaining model of a BMW 321. He accepted the gift and ordered a further five models of this type to be built in Eisenach and delivered within one week. The work-

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Peter Kirchberg: *Plaste, Blech und Planwirtschaft*, Berlin 2001, 21-29.

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Bauer, *Pkw-Bau* 49-51.

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Erobert oder befreit? Deutschland im internationalen Kräftefeld und die Sowjetische Besatzungszone (1945/46). Ed. by Helmut Mehringer/Michael Schwartz, München 1999, 88.

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With reference to technology transfer, it is important to note that some 800 German engine specialists – chiefly from BMW and Junkers – were taken to the Soviet Union to work for the aviation industry. Burghard Ciesla: Der Spezialistentransfer in die UdSSR und seine Auswirkungen in der SBZ und DDR, in: *Aus Politik und Zeitgeschichte*, B 49-50/93, 24-31; Christoph Mick: *Forschen für Stalin. Deutsche Fachleute in der sowjetischen Rüstungsindustrie 1945-1958*, München 2000, 93-111; Bauer, *Pkw-Bau*, 51-58; Kirchberg, *Plaste*, 38.

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Dierk Hoffmann/Michael Schwartz: *Vor dem Mauerbau*, München 2003, 157-158; Andrej Minjuk: *Deutsche Betriebsanlagen und Technologien in der sowjetischen Automobilindustrie 1945-1950*, in: *Sowjetische Demontagen in Deutschland 1944-1949*. Ed. by Rainer Karlsch/Jochen Laufer, Berlin 2002, 147-186; Rainer Karlsch: *Allein bezahlt? Die Reparationsleistungen der SBZ/DDR 1945-53*, Berlin 1993, 223-240.

force at the plant beavered away day and night to build the cars and delivered them to Berlin on time. On October 13, 1945, Zhukov issued SMAD Order No. 93, under which the BMW plant in Eisenach was to build an annual 3,000 Type 321 models and the same number of motor cycles (Type R35). On November 1, 1945 production in Eisenach commenced. This success story, though, is the exception rather than the rule.²³⁵

This laid the foundation for a Soviet automobile alliance on German soil. As the Soviet reparations policy changed from the total dismantling of industrial equipment to the withdrawal of supplies from ongoing production, Soviet stock corporations (called SAG for short) were set up for key sectors of industry in the Soviet Occupation Zone. SAGs were integrated in Soviet economic planning and produced primarily for the Soviet Union. On the orders of the SMAD, the BMW plant in Eisenach was integrated in SAG AWTOWELO on August 13, 1946. This alliance included Sächsische Waggonfabrik Werda and the motor cycle plants of Simson & Co. in Suhl, Thuringia. While passenger car production in the Soviet Occupation Zone only got underway very slowly and had to contend with many difficulties, production in Eisenach for SAG AWTOWELO was relatively dynamic. In the first few years of Soviet occupation, some 9,000 Type BMW 321 cars were produced. Almost 60 percent of production was dispatched to the Soviet Union, over 20 percent remained in the Soviet Occupation Zone and the remaining vehicles were delivered to a further 17 countries as commissioned by the Soviet Union. SAG AWTOWELO also ran scientific and technical offices performing extensive research and developmental work for the Soviet automobile industry and thus representing significant transfer of German automobile and engine technology to the Soviet Union.²³⁶

When dismantling in the Soviet Occupation Zone ended in 1948, the Soviet Union had disassembled at least 30 percent of the industrial capacity which had been in existence in 1944 as reparations for destruction during the war. In the final analysis, dismantling was much more critical than immediate war damage estimated at some 15 percent. Soviet reparations led to many years of neglect with regard to infrastructure and existing production capacity. Reparations from ongoing production (until 1953) represented a permanent drain on East German capital goods and led to an unfavorable shift in industrial structure. In other words, starting conditions were the worst possible.²³⁷

In July 1952, the Soviet Union returned the plants forming part of SAG AWTOWELO to the GDR. As a result, all vehicle production sites were again in German hands. This undoubtedly constituted an important capacity growth and a politico-economic gain, but at the same time it also meant that there were no more Soviet orders, or material supplies, or financial support. From now on, it was up to the GDR to keep

production afloat. But by no stretch of the imagination were the GDR's own resources sufficient to simply continue with the production program in Eisenach where the Soviet Union had left off. Production had to be adjusted, the production profile changed and sales reorganized. Moreover, automobile production and the emerging aviation industry (1954-1961) were vying for suppliers. Both industries were characterized by high integration and a broad supplier base and this led to organizational and economic problems in the GDR economy.²³⁸ Consequently, a political decision was taken not long after Eisenach had been returned to the GDR to close down the tradition-rich BMW production line. Production of the F9 Zwickau limousine began without the participation of the Eisenach engineers and, indeed, against their will. This resulted in a difficult transition phase in Eisenach production with genuine mass production unable to evolve before the mid-1950s.²³⁹

The East German automobile industry sought cooperation with Comecon states very soon after the GDR was admitted to Comecon in September 1950 – mainly because of the precarious situation with regard to equipment and suppliers. However, very little support was forthcoming from this quarter in the early 1950s. There was considerable resentment against the Germans concerning the Second World War. The ensuing distrust meant that Comecon was not initially prepared to cooperate with the GDR. Consequently, the East German automobile industry began to establish or revive its own system of suppliers under extremely difficult conditions, frequently turning to the Soviet Union for support and assistance. Although the Soviet Union had established an enormous production network for utility and military vehicles during the Second World War, automobile construction, as in all other Comecon states, was still in its infancy. Furthermore, the vehicle production plant and equipment dismantled in Germany post-1945 in part formed the basis for establishing and expanding Soviet automobile production. Only Czechoslovakia with automakers Škoda, Tatra and Jawa had a long tradition in building vehicles.²⁴⁰

An analysis of automobile construction in the GDR commissioned by the State Planning Commission dated October 31, 1953 indicates how difficult the situation was. The analysis was destined for the Soviet Control Commission in the GDR and made no bones about the fact that building different types of vehicles in the GDR was an extremely difficult problem. The analysis drew attention to the difficulty in obtaining raw materials and the inadequate supplier basis, as well as claiming that the old company traditions of BMW, Horch and Audi were an obstacle to vehicle production. The economic leadership was concerned that there were still “associated interests” in Eisenach and Zwickau which intended to push through their own design and production ideas against the interests of state planning. Given the innumerable difficulties, SPK functionaries proposed to build the Soviet Pobeda – a predecessor to the Volga – in the GDR under license.²⁴¹

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Naturwissenschaft und Technik in der DDR. Ed. by Dieter Hoffmann/Kristie Macrakis, Berlin 1997, 202f.

_ 239
Wolfgang Schröder: AWO, MZ, Trabant und Wartburg. Die Motorrad- und PKW-Produktion der DDR, Bremen 1995, 34ff.

_ 240
Schröder, AWO, S. 34-35;
Kirchberg, Plaste, S. 171-175;
Minjuk, Betriebsanlagen, 147-186.

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SAPMO-BArch, DY 30. J IV 2. 202, Signatur 27.

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Hoffman, Mauerbau, 159ff.;
Kirchberg, Plaste, 136ff.

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Ökonomisches Lexikon, Band 2,
H-P, Berlin 1979, 103.

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This refers to the effects of 1948. The conflicts between the Western powers and the Soviet Union – the West’s trade embargo in March, the separate currency reforms in Germany in June and the Soviet’s ensuing blockade of Berlin followed by the response of the Western allies in the form of the Berlin Airlift – inevitably led to closer economic ties among countries in the Soviet bloc.

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Wirtschaftliche Folgelasten des Krieges in der SBZ/DDR.
Ed. by Christoph Buchheim,
Baden-Baden 1995. 354. 364ff.

In the 1950s, the GDR was confronted with the basic problem of devoting the same urgency to handling private consumption, infrastructure and industrial modernization. However, scarce investment and resources meant setting priorities. The importance of the Soviet industrialization model meant that heavy industry and basic industry were seen as the motor of growth and given corresponding support. Other leading branches of industry were energy, chemicals, heavy engineering and building materials. Automobile production was not among the priorities, even though automobile plants were expected to raise production significantly.²⁴²

In the light of this situation, the GDR’s foreign policy was oriented to creating a common – socialist – market from an early stage. There was considerable interest in the large-scale expansion of economic relations with the Soviet Union and the other East European countries with a view to using the capacities of the respective economies to foster the GDR’s own economic growth. The envisaged aim was to gradually create a powerful, single economic area characterized by a highly-concentrated division of labor, comprehensive production specialization and intensive trade under a process of planned “rapprochement” and mutually complementary activities and relations. This was also how the “socialist economic community” intended to protect itself from Western economic fluctuations and instability.²⁴³

Comecon was set up in Moscow in January 1949. This economic alliance was a reaction to the Marshall Plan (1947) and the first major Cold War crisis.²⁴⁴ The founding members comprised Poland, Hungary, Czechoslovakia, Romania, Bulgaria and the Soviet Union. The GDR was admitted in September 1950. The start of the Korean War in June 1950 led to the first attempts of economic cooperation. In the early years, however, Comecon only played a minor role. The big decisions on economic policy were taken by the party and government leaders, i.e. Comecon was a bystander as regards such decisions during the Stalin era. The economic alliance primarily functioned as an organization for economic aid. In addition, Comecon was to support the industrialization of mainly agricultural countries such as Romania and Bulgaria. This version of Comecon was a far cry from economic integration. The situation only changed radically after Stalin’s death (1953). Cooperation acquired a new dimension in 1954 and Comecon emerged from the shadows.²⁴⁵

East European member countries announced cross-border production specialization for the first time at the Comecon Conference on June 24 and 25, 1954. Comecon chose vehicle production because it was assumed that these products were particularly suited to mass production. It was also assumed it would be easy to develop methods and implement them efficiently. Experience from this sector was to

be subsequently transferred to other sectors of industry. But it took until the spring of 1956 before realization began. In February and March of that year, specialization for the member countries was finally decided. The GDR was to build small and mid-sized cars as well as trucks with a maximum payload of five metric tons. This meant the GDR was to cease producing buses, trolley buses and heavy trucks, and transfer production of these types of vehicle to Hungary, Czechoslovakia and the Soviet Union. In 1956, automobile production focused on four Comecon states – the Soviet Union, Czechoslovakia, Poland and the GDR.²⁴⁶

An effective distribution of labor among the socialist states was to be established through the classification of production types and components. The target was to achieve high unit numbers for all types of vehicle through mass production, rationalization and rigorously limiting the number of vehicle types. Selected Comecon countries were to produce maximum volumes of a minimal number of types (cars, buses, trucks, etc.) and supply these to other Comecon member countries on the basis of bilateral agreements. In an age of mass production, the principle made sense. Comecon countries planned to produce high volumes of vehicles on the basis of a limited number of engine variants, components, bodies and chassis, thus providing a flexible response to demand from all socialist countries. Supplies to the vehicle industries in Comecon countries were to be coordinated, expanded and specialized on the basis of standardization and uniform specifications. In 1956, however, Comecon recommended specialization and cooperation in automobile construction for those countries which already had high technical and productivity levels. This in turn generated a negative impact, as the less developed Comecon countries had almost no genuine interest in cooperation since they were chiefly concerned with their own industrialization. At the same time, the Germans were viewed with distrust (see above). Post-1990, former GDR foreign trade negotiators reported that negotiations with various Comecon partners in the 1950s were often frosty and laborious. On occasion, the opinion of the Germans based on experiences from the last war was conveyed to the negotiators.²⁴⁷

What this meant in concrete terms was that vehicle categories (A, B, B/1, etc.) were determined for station wagons, limousines, coupés, special vehicles, etc. All the models in one group had the same body with modifications to the front and rear as well as the side lines, i.e. the external differentiation among brands such as the Volga, Wartburg, Škoda, Warszawa or Moskvitch was to be preserved. Interior modifications were obviously also possible. Like the body and the interior, engines were also designed on the module principle. The aim was to offer an extensive range of vehicles to suit all needs in Comecon countries without “uniformization” and at low cost.²⁴⁸

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Gerd Neumann:
Die ökonomischen
Entwicklungsbedingungen
des RGW 1945-1958, Band 1,
Berlin 1980, 204f.

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Jugend und Technik Almanach
1963, 120ff.; Ralf Ahrens:
Gegenseitige Wirtschaftshilfe?
Die DDR im RGW – Strukturen
und handelspolitische Strategien
1963-1976, Köln 2000, 100f.;
Wirtschaftliche Integration und
Wandel von Raumstrukturen im
19. und 20. Jahrhundert. Ed. by
Christoph Buchheim, Berlin 1994,
173; Eye witness interviews with
three former GDR foreign trade
negotiators in July 2007.

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Kraftfahrzeugtechnik 12/1962,
457ff.

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Buchheim, *Folgelasten*, 363;
 Jochen Bethkenhagen/Heinrich
 Machowski: *Integration im Rat
 für gegenseitige Wirtschaftshilfe*,
 Berlin 1976, 45ff.; Jozef M. van
 Brabant: *Economic Integration in
 Eastern Europe*, New York 1989,
 279-288; János Kornai: *Das sozi-
 alistische System. Die politische
 Ökonomie des Kommunismus*,
 Oxford 1992, 377-406.

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Abelshäuser,
Wirtschaftsgeschichte, 371f.;
 Bauer, *Pkw-Bau*, 58-82;
 Neumann, *RGW*, 205.

_ 251

Kirchberg, *Plaste*, 344f.

The concrete realization of the specialization arrangements agreed in 1956 was a long time coming to the various Comecon countries. Ultimately, the planned systematic limitation of vehicle types failed to materialize. Bilateral supply relations were anything but efficient and assumed bizarre “barter” forms. It would be true to say that East European economic integration took the form of a sophisticated barter market with a “shopping basket” character. At no time did the economic alliance in Eastern Europe succeed in overcoming national economic borders in an effective way. Comecon countries persevered with bilateral trade relations and clearing transactions. No functioning price and currency mechanism developed, and as a result, the crucial performance incentives failed to materialize. Moreover, this lack of incentives also meant there was no momentum for improving productivity or any genuine interest in expanding relations in the field of economic cooperation. Most importantly, though, since the foreign trade monopoly of planned economies was functionally and ideologically motivated, the state was never in a position to make the necessary withdrawal from trade and economic relations. This explains why economic cooperation primarily functioned at administrative level, i.e. it was mainly understood as an administrative task in the “planning business” of intra-bloc trade.²⁴⁹

Even though the Comecon plans of 1956 for a cross-border vehicle program were not implemented, the GDR nevertheless benefited, as East German automakers used the component classification for their own production and the tense situation with regard to materials and limited industrial capacity referred to previously compelled the GDR to limit its type program along the lines recommended by Comecon: post-1956, research, development and production in the GDR therefore concentrated on the two types of vehicle – the mid-sized Wartburg passenger car from Eisenach and the Trabant small car from Zwickau mentioned earlier in this paper. The focus on vehicles with two-stroke engines later proved to be extremely disadvantageous.²⁵⁰

Despite intensive efforts, production cost per vehicle in the GDR automobile sector remained very high until well into the 1960s. In 1965, for example, it took 119 hours to produce a Wartburg and 78 hours to build a Trabant. In the West, on the other hand, it took 38 hours to build an Opel Kadett and 35 hours to produce a Volkswagen. Furthermore, it took the GDR until the mid-1960s to return to the pre-war level of passenger car production. Investments in GDR automobile construction remained generally low and there had been hardly any expansion of production capacity. At the same time, though, higher production was expected. The only option open to automobile producers was “optimal rationalization” of production and to renew the search for Comecon partners.²⁵¹

Attempts by the GDR throughout the 1960s to establish a cooperation with individual Comecon countries in the field of automobile production again proved difficult or unsuccessful. These particular developments must, of course, be seen in the context of general Comecon progress at the time. A detailed analysis, however, goes beyond the scope of this paper. It is nevertheless important to note that the “Basic Principles of the International Socialist Division of Labor” – the “Magna Carta” of Comecon – were passed in June 1962. Now, the coordination of economic plans would generate the “international specialization of production” based on the “comparative cost benefit” principle. The attempt by Soviet Party boss Khrushchev in 1962 to introduce supra-national economic planning was thwarted by resistance from Romania. While production specialization had again moved up the agenda, national self-interests and the inherent systematic weaknesses referred to above made practical realization generally difficult and problematic. There were also attempts at “market liberalization”; Hungary and Poland called for the creation of a convertible currency within Comecon in the second half of the 1960s. Although the “International Bank for Economic Cooperation” was set up in October 1963, this institution never succeeded in subsequently establishing a functioning credit system facilitating the transition from bilateral to multilateral payments. Moreover, Comecon’s share in world trade began to stagnate in the 1960s, a fact that may be seen as indicative of the poor competitiveness of Comecon products on the world market.²⁵²

The situation for the GDR in terms of cooperation in automobile production during the 1960s and 70s may be described as follows: The Soviet Union was pursuing its own automobile program and was not interested in starting cooperation with the GDR to develop and build passenger cars. On the contrary, this was a potentially lucrative market for the Soviet Union. A growing number of Soviet vehicles were imported to the GDR during the 1960s. The share of imports in the total number of cars in the GDR rose from 7 percent in 1956 to almost 22 percent in 1965. At the end of the 1960s, imports accounted for 32 percent (1969) and over 50 percent by the mid-1970s. A large share of imported vehicles came from Soviet production. Imports also included spare parts which were a perennial problem, since they were never available in sufficient quantities or “just in time.”²⁵³

The Polish automobile industry was a potential cooperation partner. Poland, like the Soviet Union, had acquired Western know-how and license production from the Italian automaker Fiat. Cooperation with the GDR, however, failed to materialize as the Polish government insisted that the GDR should purchase a Fiat license in the event of Polish-German production cooperation. The People’s Republic of Hungary was

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For further comparison cf. Ahrens, *Wirtschaftshilfe*; Buchheim, *Folgelasten*, 363-380; Wysocki, *Integration*, 159-187.

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Schröder, *AWO*, 80 and 134.

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Kirchberg, *Plaste*, 346f.;
Bauer, *Pkw-Bau*, 154f., 218.

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The “transferable ruble” was introduced as a unit of account for settling clearing accounts on January 1, 1964. Buchem, *Folgelasten*, 366.

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Schröder, *AWO*, p. 98; Bauer, *Pkw-Bau*, 216ff.; Gerhard Schürer: *Gewagt und Verloren*, Berlin 1996, p. 204ff.

very interested in cooperating with the GDR, but was not willing to set up final assembly, preferring to deliver parts to and take finished vehicles from the GDR. The only powerful partner was Czechoslovakia with its proven and tradition-rich Škoda production. There, GDR cooperation efforts in the second half of the 1960s met with considerable interest. Initial talks on future cooperation were set up in 1967, but the events of the “Prague Spring” in 1968 interrupted these contacts. Discussions relating to cooperation resumed during the course of 1970 and the Ministries of Industry had already agreed on a common proposal by the end of the year. A joint statement on the speedy realization of long-term cooperation in the field of automobile production between the GDR and Czechoslovakia was made during an official GDR visit to Czechoslovakia in November 1971.²⁵⁴

At the same time, conditions in Comecon improved slightly. In April 1969, the XXIII Conference of First Secretaries of Communist and Workers’ Parties and of the Heads of Government of Comecon member countries approved a program for future economic, scientific and technical cooperation. Two years later – despite many objections and the special positions of many member countries – this had evolved into a “complex program” to develop socialist economic integration, which was passed by the XXV Conference of First Secretaries of Communist and Workers’ Parties and of the Heads of Government of Comecon member countries in July 1971. This was designed to make the vision of a socialist economic community with a common currency become reality. However, the “transferable ruble”²⁵⁵ (the main currency) remained an ineffective aid to multinational clearing. Other milestones were common domestic and foreign trade planning, production specialization, scientific cooperation and the creation of a large internal market. Establishing cross-border automobile production was once again expressly recommended and – as in 1956 – the division of labor within Comecon with regard to automobile production again specified: the Soviet Union and Poland were to build larger cars; the GDR and Czechoslovakia were to produce cars with a cubic capacity of up to 1,100 cc.²⁵⁶

By mid-1972, the GDR and Czechoslovakia had largely reached agreement: there was to be joint development and production of a car to be christened the “Comecon car.” All parts were to be of identical design. Only the body design would be different. A crucial advantage for the GDR was the opportunity to profit from Czechoslovakia’s know-how in four-stroke engines, as the GDR had been obliged to abandon its own development activities in the 1960s. Under the cooperation plans, Hungary was to provide parts and receive fully-built vehicles in return. Final assembly was to take place in Czechoslovakia and the GDR. All in all, the plans would bring a pleasing rise in production figures, ease the strain on the supplier industries and make good technological

deficits. While the Czech government approved the development concept and the draft government agreement, the GDR government dragged its heels in giving its approval and, in April 1973, informed Czechoslovakia that financing and capacity problems did not permit the conclusion of a government agreement, thus putting paid to the plans for the time being.²⁵⁷

This withdrawal by the GDR was associated with the new orientation of economic policy under SED boss Erich Honecker at the beginning of the 1970s. From 1971, there was an expansive consumer and social policy at the expense of economic substance. During the course of 1972, the discrepancy between political guidelines and economic possibilities had already begun to widen. The ostensibly stabilizing social policy was financed by higher debt. Moreover, differing opinions on the “Comecon car” within the SED leadership and the sudden reallocation of scarce investment funds to other areas meant that the comprehensive cooperation model with Czechoslovakia was abandoned in April 1973.²⁵⁸

The Czechoslovakians were understandably annoyed. Cooperation entirely ceased for a few months. 1974 saw the official resumption of these negotiations. From the outset, the Czechoslovakians took an uncompromising stance and the GDR attitude, too, was hardly conciliatory. So no agreement was reached on the basic concept of future vehicle design. The government agreement eventually signed in June 1975 therefore no longer made provision for the joint development and production of a passenger car, but instead merely outlined the terms for cooperation on component exchange. The GDR was to be responsible for supplying gearboxes, drive shafts and steering systems, while Czechoslovakia would concentrate on the development and production of engines and brake systems. However, the different basic concepts existent in the two countries meant the production and supply of different steering systems, gearboxes and drive shafts as well as different engines and brake systems. The benefits of the original cooperation had turned into disadvantages. For the GDR in particular, the new agreement brought many drawbacks. First, two different production systems had to be set up, one to manufacture components for use in the GDR and the other to produce parts for export to Czechoslovakia; second, the Škoda plants indicated they would be designing engines to suit their own needs, so these components were only of limited use for GDR production. As a result, this “barter deal” meant that the GDR’s automobile industry would have had to set up special export plants for Czechoslovakian products and would in return have taken delivery of four-stroke engines from Czechoslovakia that did not really suit its needs.²⁵⁹

– 257
Bauer, Pkw-Bau, 220f.

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André Steiner: Von Plan zu Plan.
Eine Wirtschaftsgeschichte der
DDR, Berlin 2004, 167-178.

– 259
Bauer, Pkw-Bau, 222f.

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Schürer, Gewagt, 206; Steiner, Plan, 178-196; Bauer, Pkw-Bau, 216-232; Theo Pirker/M. Rainer Lepsius: Der Plan als Befehl und Fiktion, Opladen 1995, 285-375.

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Rainer Karlsch: Die Auswirkungen der Reparationsentnahmen auf die Wettbewerbsfähigkeit der Wirtschaft in der SBZ/DDR, in: Wirtschaftsordnung und Wirtschaftspolitik in Deutschland (1933-1993). Ed. by Jürgen Schneider/Wolfgang Harbrecht, Stuttgart 1996, 152.

In a general context, economic conditions for East European countries had also deteriorated since the Middle East conflict in 1973. With reference to cooperation relations with other Comecon countries, the socio-political orientation of the GDR's economic policy narrowed the room for maneuver left to the country even further. Dwindling resources were deployed for short- or medium-term ends, focusing on what was feasible within the country itself. When the raw material situation for the GDR dramatically deteriorated as Soviet crude supplies were cut back at the end of the 1970s, the country was heading for a debt crisis and the Czechoslovakian negotiating partners still showed no sign of adjusting their basic engine and automobile concept to accommodate the GDR's development concept, the SED leadership seriously considered pulling out of the agreement. Czechoslovakia did intervene in April 1979, but the GDR broke off cooperation in November 1979 in disregard of the 1975 government agreement.²⁶⁰

The fact that the GDR's passenger car production in the mid-1950s was still at only one-third of the level back in 1936 illustrates the extent of the damage brought by Soviet dismantling of industrial equipment and reparations for the revival of automobile production in the GDR. Vehicle production in the Soviet Occupation Zone/GDR never fully recovered from this Soviet action. Moreover, the Cold War and the division of Germany meant that the traditional supplier relations in the west of the country were lost, creating major problems for automobile production in the GDR from the very outset. At this early development stage, the automobile industry was already a "lame duck." Ideological principles meant that SED economic policy did not give investment priority to vehicle production. Moreover, other wrong decisions and cuts in the 1960s and 70s meant that the central German automobile industry, which had once been a leading light in this sector, was doomed to medium- and long-term ruin.²⁶¹

The initial difficult situation could have been improved by functioning cooperation within Comecon. But during the 1950s and 60s, Comecon countries had no real interest in cooperating with the GDR. The idea that each Comecon member country would produce maximum numbers of a minimum type of vehicles, and thus supply other Comecon countries with automobiles, backfired. It became obvious in the 1960s that Comecon countries had decided to keep the different types of vehicles and their indigenous production facilities. Furthermore, a suppliers' "alliance" among Comecon countries failed to materialize. As a result, automobile production in the GDR was compelled to set up an extensive supplier network in the country at an early stage. But this network was dogged by capacity bottlenecks, poor quality and a lack of resources right up until the GDR collapsed. Vertical integration in GDR automobile production was therefore

very high (“reproductive unity”) and even reached 80 percent in the 1980s. The focus on its own small internal market and restricting Fordism to its economic and technological aspects meant that the GDR represented a special case in the history of Fordist mass production, i.e. “one-country Fordism.”²⁶²

The second attempt at cross-border automobile cooperation in Comecon during the 1970s also came to nothing. The failure of the Comecon project between the GDR and Czechoslovakia is further confirmation that the institutional and organizational conditions within Comecon were not conducive to close economic cooperation. The state foreign trade monopoly and the lack of a convertible currency were crucial obstacles; as a result, specialization and cooperation involving commercial incentives and effects were stifled. Undeterred by all efforts, Comecon effectively remained a “customs union,” where foreign trade activities primarily took the form of bilateral relations. There was a prearranged barter market brokered by the state. The Comecon currency set up in 1964 merely functioned as a unit of account. Above all, the history of Comecon shows that without private ownership, the sense of responsibility of the part of all players was severely curtailed, and that without a functioning money market, there could be no economically binding exchange rates and prices. The importance of an effective currency for multinational clearing became very obvious on January 9, 1990, when Comecon member states meeting in Sofia decided to abolish the “transferable ruble,” until then the valid currency of the socialist community of states. Now, every country could buy or sell whatever it liked on the world market. The quasi-monopoly sales markets literally disappeared overnight. An entire network of suppliers and bilateral agreements became useless and disintegrated. The decision taken in January 1990 meant the irrevocable end to Eastern Europe’s community of planned economies. Comecon was dissolved in June 1991.²⁶³

The collapse of the 1979 Comecon project proved fatal for both the Škoda plants and the GDR automobile plants in Eisenach and Zwickau. In the 1980s, both Czechoslovakia and the GDR continued their developmental activities on entirely outdated products. At the end of the GDR era, the appearance of the Trabant and Wartburg had – as already mentioned at the beginning of this paper – hardly changed at all. For the population, these were “brand-new classic cars.” In 1990, both types of vehicle reflected conditions in the GDR and symbolized the failure of East European integration in the automobile sector. <<

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cf. Abelshäuser,
Wirtschaftsgeschichte, 370ff.

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On relations between GDR
foreign trade and Comecon
countries: Dietrich Lemke: *Handel
& Wandel, Lebenserinnerungen
eines DDR-Aussenhändlers
1952-1995*, Berlin 2007. Wunder,
Pleiten und Visionen. Ein
Streifzug durch 60 Jahre deutsche
Wirtschaftsgeschichte. Ed. by
Jörg Lichter, Berlin 2007, 225ff.;
Kornai, *System*, 377-406.

08

Manfred Grieger

**Business with the Socialist Automotive Industry.
Volkswagen's Economic Relations with the Soviet Union
and the German Democratic Republic**

Once the impact of the Second World War had been overcome, the pace of automobilisation in industrialized nations accelerated rapidly. Socialist states were no exception. Expansion in the vehicle industry, and in particular in passenger car production, was primarily achieved by mobilizing existing industrial capacity. In addition, automakers in the socialist states turned to Western partners – one example is the cooperation with Fiat to build the AvtoVAZ complex in Tol'jatti, Russia.

The following article gives a first impression of the “business with the East” conducted by Volkswagen, Germany’s largest automaker. The Soviet Union is taken as a case study for illustrating a cooperation that did not materialize, whereas the collaboration with the auto industry of the GDR is an example of an essentially successful cooperation which continued to prosper after the political system changed.

I.

The Board of Management of Volkswagenwerk AG discussed building a factory to mass produce Volkswagen cars for the first time on May 24, 1966 in connection with the emerging “exports to the East.” Discussions were triggered by talks with the export department of the Romanian government which was interested in a license to build Volkswagen models, but finally decided in favor of Renault as a project partner. The Dacia Logan, which has not been without success in Western Europe, is a late product of this cross-border industrial cooperation.

The Volkswagen Board of Management believed that the Soviet center of power wished to be asked about its opinion on an economic commitment in its “satellite state” in South Eastern Europe. A recent visit by the Soviet “Minister of Automation” to the Volkswagen factory provided an unexpected opportunity. While touring the plant with Otto Höhne, the Board member for production, the minister, who had come to Wolfsburg on his own initiative, described the contacts with Fiat which resulted in the AvtoVAZ factory in Tol'jatti with an initial production capacity of 2,000 vehicles per day as a “political issue.”²⁶⁴ Since the Soviet government had to “offer the people something,” and that something was defined as “including auto-mobiles for private use,” the Soviet Union was interested in contacts with Volkswagenwerk which, it had been determined, had a high degree of automation. Significantly enough, the technical fascination with Ford-based mass production principles was combined with a political approach encouraging individual consumption. In this context, Frank Novotny, the Board member responsible for spe-

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Minutes of the Board meeting
on May 24, 1966, 1st draft,
p. 3 (Corporate Archives of
Volkswagen AG (CAVW), Z 69,
No. 720/2).

_265
Ibid., p. 2.

_266
Ibid., p. 3.

_267
Minutes of the Board meeting
on March 22, 1967, 1st draft,
p. 7 (CAVW, Z 69, No. 721/1).

_268
Ibid., p. 2.

_269
Memorandum No. 11/68 on the
meeting of the Volkswagenwerk
AG Board on July 1, 1968, p. 5
(CAVW, Z 69, No. 880/2).

_270
Russia – Memorandum written
by Paulsen [for the Board
meeting on July 1, 1968]
(CAVW, Z 69, No. 880/2).

_271
Minutes No. 30/1969 of
the meeting of the Board
of Volkswagenwerk AG on
December 8, 1969, p. 3
(CAVW, Z 373, No. 452/2).

cial affairs, PR and external relations, agreed “in principle to cooperating with the Russians.” However, should the Russians “wish to place an order with us,” that would “still take a long time.”²⁶⁵ The Board unanimously agreed that “the opportunity for discussions with the Russians should be taken up and exploratory talks initiated.”²⁶⁶

On March 22, 1967 Julius Paulsen, Board member for purchasing, raised the subject of building a Volkswagen plant in the Soviet Union following a similar question from a lobbyist.²⁶⁷ Contacts with the Soviet Trade Mission in Bonn should establish “whether the Russians are genuinely interested in such a project.”²⁶⁸ In July 1968, there was an intensive Board discussion on “business with Eastern bloc countries.” According to Chairman Kurt Lotz, wherever “there are sales opportunities, these should be taken, even if they are only ‘small steps’ at the moment.”²⁶⁹ However, the report by the Board member for purchasing Julius Paulsen stated that there was as yet no “barter transaction opportunity” for business with the Soviet Union since the Soviet government had “neither approved the building of consignment warehouses for spare parts and vehicles, nor had it agreed to build customer service workshops.”²⁷⁰

The lines of communication nevertheless remained open. Otto Höhne, Head of Production at the Volkswagen Group, traveled to Moscow for further talks at the end of 1969, and discussions intensified further with the return visit by the Minister for Automobile Construction, Tarasov, in early 1970. Discussions now centered on concrete plans to build a factory, since Tarasov asked the Volkswagen management to design a factory producing 2,000 vehicles a day. The Soviet Union was noticeably car-hungry and there were concerns at Group headquarters in Wolfsburg that the Soviets could embroil Volkswagenwerk in supply relations through the back door by importing vehicles from Brazil. For this reason, the Brazilian subsidiary, Volkswagen do Brasil Ltda., was requested “to refrain from possible exports to Russia” for “political and tactical reasons.” As long as “the question of good service for possible vehicle deliveries to that country” had not been clarified, supplying the Soviet Union “with Volkswagen models via third countries” did not seem appropriate.²⁷¹

What remained were factory tours and sporadic negotiations: The Deputy Minister of Foreign Trade, Smeliakov, visited the Volkswagen plant on September 9, 1970. Valentin Falin, the ever-attentive Soviet ambassador to the Federal Republic of Germany, revived contacts with Volkswagen after a break of almost three years. He was followed on January 25, 1974 by a delegation from Moscow, including the head of Moscow city’s transport department, to negotiate setting up a Volkswagen customer service workshop in Moscow and the delivery of vehicles to the city’s transport services. More or less by chance, there was again talk of assembling or producing

cars in the vicinity of Moscow.²⁷² However, apart from business trips, nothing specific emerged for either party.

Both sides did frequently come together for negotiations during the 1980s. In July 1980, for example, these talks focused on the licensed construction of Volkswagen oil pumps and differentials by AvtoVAZ.²⁷³ Some thought was given to participating in a joint venture car rental company. Volkswagen and Liebherr, the most successful joint venture partner in the Soviet Union, went to great lengths to try to set up a project to build and operate a diesel engine factory with an annual production capacity of approximately 240,000 units and total investment of 3 billion DM, but the project came to nothing in 1986 because the Soviet partner was short of foreign currency.²⁷⁴

At the height of perestroika when, encouraged by German politics, a growing number of German companies was reviewing business opportunities in the Soviet Union, Soviet institutions also reactivated their contacts. This resulted in a round of negotiations in Moscow in 1987 to discuss the licensed production of a diesel engine: Soviet representatives were interested in a license to build the direct injection engine (TDI) which was still undergoing tests, while Volkswagen preferred the proven swirl chamber design. Volkswagen was not at all optimistic about Soviet plans to cooperate on the development of a compact car (“Oka”) with an annual capacity set at 300,000 units. Since Volkswagen wanted to push ahead with its Polo series and was not interested in digging its own grave by supporting a competing model, the Board did not see any “promising chances for cooperation.”²⁷⁵ Volkswagen AG also turned down direct cooperation on a Volga class vehicle due to a lack of development capacity. There were economic reservations concerning the plans drawn up in 1987 for the licensed annual production of a maximum 30,000 TL class trucks.

Furthermore, project manager Volkhard Köhler also referred to the political risk that Gorbachev’s ideas might fail to materialize. In addition, insufficient support from the Soviet side, which intended to burden the joint venture with additional costs for water, real estate, etc. and was not prepared to give long-term project support in the form of competitive and guaranteed conditions for feedstocks, labor, etc., deprived the project of a “secure basis for calculation.” Finally, irrespective of their joint venture capital, Western partners were called on to act as guarantors for total capital spending, resulting in unacceptable financial risks. Moreover, the Soviet party proposed to finance most of its investment by increasing exports to the West, which conflicted with the interests of Volkswagen. And finally, the representatives of the Soviet Ministry for Automobile Construction insisted on completely unrealistic ideas of the time corridor for production start-up, which Volkswagen had estimated at about five

²⁷² Rudolf Leiding to the State Secretary at the Federal Ministry of Finance, Karl Otto Pöhl, dated August 21, 1974, 1 (CAVW, Z 174, No. 535/1).

²⁷³ Main conditions for granting license rights and the transfer of VW know-how concerning the production of VW oil pumps and differentials by the VAZ automobile factories of the Soviet Union, July 1980 (CAVW, Z 610, No. 656/1).

²⁷⁴ Volkhard Köhler to Horst Münzner re. status Soviet Union dated May 11, 1988 (CAVW, Z 128, No. 5/1).

²⁷⁵ Volkswagen AG, Hahn and Münzner, to the Minister for Automobile Construction, N. A. Pugin, dated September 24, 1987 (CAVW, Z 128, No. 5/1); Carl H. Hahn, memo of a conversation with the Soviet Minister for Automobile Construction, Pugin, dated January 19, 1988 (CAVW, Z 128, No. 5/1).

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Volkhard Köhler re. visit of Soviet delegation headed by Mr. Levitchev, Deputy Minister for Automobile Production, to Wolfsburg on September 26, 1988, p. 3 (CAVW, Z 128, No. 5/1).

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ibid., p. 2.

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Volkhard Köhler re. visit of Soviet government delegation headed by Minister President Silaev on October 5, 1988 dated October 7, 1988, p. 1 (CAVW, Z 128, No. 5/1); see also Volkswagen AG, Volkhard Köhler/V. Steinwascher to the Vice Minister for the Automobile Industry of the Soviet Union, E. Levitchev, dated December 23, 1988, pp. 1-2 (CAVW, Z 128, No. 5/1).

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Minutes No. 41/1988 of the meeting of the Board of Management of Volkswagen AG on October 17, 1988, p. 15 (CAVW, Z 368, No. 492/1).

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Volkhard Köhler to Carl H. Hahn re. your talks with Soviet government representatives on September 13, 1988, p. 3 (CAVW, Z 128, No. 5/1).

years. Although the Soviet representatives understood the arguments, they insisted “perestroika simply gave them no time” and “efforts must be made to accelerate the time frame.”²⁷⁶

As the negotiations progressed, Soviet projections assumed utopian proportions – automotive production was to rise from 1.2 million units in 1988 to 2.3 million in 1995 – and the Board stepped in to calm things down. Talking to a Soviet government delegation led by Minister Sinchenko, Deputy Chairman of the Office of Mechanical Engineering of the Soviet Council of Ministers, Carl H. Hahn stated that it was the “declared interest” of Volkswagen to “become a partner for Soviet industry” in the context of the activities of the Council for Mutual Economic Assistance. However, Hahn added that it was in “our mutual interest” for Volkswagen to focus on those projects which, given the company’s commitment in Spain, could be “carried out with the available manpower.” He stated that his company would examine whether Volkswagen was in a position to participate in the “Oka activities” planned for Elabuga in the vicinity of Naberezhnye Chelny in the Kama region; these activities involved 300,000 AOO class vehicles in 1991 and an additional 300,000 AO class vehicles in 1993. However, Hahn expressed his opinion that the fastest solution would be to “take existing VW developments (vehicle, gearbox and engine) and simply adapt these to Soviet requirements.”²⁷⁷

Following a visit by a Soviet government delegation led by Minister-President Silaev on October 5, 1988, Volkswagen agreed to offer the Soviets the product and production know-how including factory plans for the envisaged Polo factory in Matorell/Spain, subject to a certain time lag, “in order to build a corresponding derivate in a Soviet production unit.”²⁷⁸ Soviet representatives also declined to take up Volkswagen’s offer to use the Transporter production facilities no longer required in Hanover as a result of the model switch with a view to improving transport capacity in the medium term; the Soviets insisted on state-of-the-art technology.²⁷⁹ But time was literally running out, particularly given that the project could only have been realized post-1995 anyway. At the end of the day, everyone went away empty-handed and the whole episode can be best summed up in the words of Volkhard Köhler, the manager responsible for Russian business, who commented that “projects in the Soviet Union are per se more problematic than those in the GDR.”²⁸⁰

II.

In contrast, consultations with the GDR on economic exchange began later, but proved much more successful. Apart from oil deliveries, Volkswagen only caught up with Neckermann and other retail companies in 1975, and began practicing the same successful economic cooperation. In the company's Board, the switch from Rudolf Leiding to the steel manager Toni Schmücker, who was familiar with "trading with the East," also contributed to opening the door to the neighbor in the East. With a contact arranged by the Head of the Permanent Representation of the GDR, Michael Kohl, the new Chairman of the Board of Management and his Board colleague Horst Münzner approached Deputy Foreign Trade Minister Heinz Behrendt at the end of February 1975 to enquire whether a central spare parts store would not be meaningful in view of the increase in transit traffic and the equipment in vehicles driven by accredited embassy staff. Starting with the consolidation of machinery deliveries to Leipzig Spring Fair in 1976²⁸¹, the first consultations of the export department in March 1977 identified a market of some 30 vehicles a year and spare parts sales of the order of 500,000 DM, begging the question of the economic efficiency of such a commitment.

In the fall, agreement was reached on the delivery of a total of 10,300 Golf, beginning with 300 vehicles in December 1977.²⁸² The deal had a total value of 81.5 million DM and gave the Wolfsburg workforce almost a full week's work. The Volkswagen plant overcame its serious crisis of 1974/75 in part thanks to Golf production and was now again looking to expand its sales markets. The interest expressed by the GDR came at just the right time. The intention was apparently to siphon off purchasing power, since the initial selling price was set at 30,000 Mark. However, expressions of dissatisfaction on the part of wealthy customers, possibly also state functionaries, led to a reduction in the price to 20,000 Mark. In return, Volkswagen undertook to take goods from the GDR valued at a total of 90 million DM between 1978 and 1980. Press reports on the deal met with a sensational response. When Volkswagen took stock at the end of 1978, all the vehicles had been delivered during the course of the year and the orders from the GDR to the FRG had gone ahead once the initial quality problems had been sorted out. The Board of Management therefore proposed to take up "continuous mutual business relations."²⁸³

_ 281
Toni Schmücker to General Director Wonsack, Leipziger Messeamt, dated March 1, 1976 (CAVW, Z 610, No. 681/2).

_ 282
Volkswagenwerk AG, Toni Schmücker and Wolfgang P. Schmidt to the Ministry of Foreign Trade, Secretary of State Dr. Schalk, dated October 14, 1977 (CAVW, Z 610, No. 681/1).

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Volkswagenwerk AG, Toni Schmücker and Horst Münzner, to General Director Dr. Brückner, WMW – Export-Import, VEB Außenhandelsbetrieb der DDR, dated December 13, 1978 (CAVW, Z 610, No. 681/1).

_ 284

P. Reinecke to Wolfgang P. Schmidt re. GDR deliveries of transport machines for GENEX gift service dated May 21, 1982 (CAVW, Z 610, No. 656/1).

_ 285

Carl Hahn to Gerhard Beil, State Secretary at the Ministry of Foreign Trade, re. economic value of using low-consumption automobile engines in the GDR dated November 15, 1982 (CAVW, Z 610, No. 611/1).

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Volkhard Köhler and A. Kowling to the General Works Council and Board of Management re. negotiations with the GDR dated February 8, 1984, 2f. (CAVW, Z 610, No. 10/1).

_ 287

Alpha engine project No. 14-142/28108/11678/4/1610/32 of November 12, 1984 (CAVW, Z 587, No. 15/7).

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Appendix III of the documents for Carl Hahn for resubmission at the next meeting with State Secretary Beil dated August 20, 1984 (CAVW, Z 610, Nr. 117/1).

For the time being, though, this was not possible for various reasons. First of all, it was proving increasingly difficult to obtain goods of the specified quality – and in 1981, the GDR was only willing to deliver a maximum annual total of 1,000 Golf to GDR citizens via the GENEX gift service, or in other words to channel the funds paid by relatives in the Federal Republic to buy a Golf for their family in the East into the GDR foreign exchange balance sheet.²⁸⁴

Business relations received a new boost in the late summer of 1982 when Volkswagen received signs of interest on the part of the GDR to install the Volkswagen 801 engine in the Trabant and Wartburg, thus converting the GDR passenger car drivetrain to a four-stroke engine. The decision was primarily motivated by the high fuel costs of the inefficient two-stroke engine; Volkswagenwerk AG calculated that the switch to the four-stroke engine would save over 2.165 billion US\$ in the space of only fifteen years.²⁸⁵ According to Volkswagen, the technical problem could be solved by buying one of the engine production lines with an annual capacity of 370,000 units no longer needed in the Federal Republic of Germany. Purchase of the engine production line was to be financed by the delivery to Volkswagen of just under one third of what are known as short blocks together with barter transaction goods from the mechanical engineering and component supplier industries. Dismantling of the production line in Hanover was to begin in early 1986; series production at the new GDR site was to start in early 1988. These milestones set an extremely ambitious timeline for the project. In addition, agreement was also reached to deliver several thousand Transporters produced by the Hanover plant; this order placated the labor representatives in Hanover who had expressed concern about job losses since engine production had been axed without replacement. The Human Resources department announced that the project would result in 400 new jobs.²⁸⁶

The contract for the “Alpha engine project” signed on November 12, 1984 marked a turning point in economic relations with the GDR since it indicated integration in the Volkswagen Group supply and production alliance.²⁸⁷ During the same period, the Volkswagen management did in fact consider more far-reaching cooperation in the form of “the design of a compact car and/or commercial vehicle for production in the GDR.” Furthermore, there were also plans to re-deliver some of these vehicles to the European sales organization “given a GDR cost advantage” and even to assist in “developing modern vehicle production.”²⁸⁸ These ideas, however, were not unanimously welcomed by the GDR leadership as Erich Honecker was concerned that the GDR automobile industry would become the extended work bench of its economically superior German neighbor. The short period up until the end of the GDR was completely taken up by implementation of the Alpha engine project.

The fact that, in the final analysis, economic relations with the GDR were significantly more successful and closer than those with the Soviet Union is certainly primarily due to the common automotive tradition, the same language and the personal affinities of the decision-makers in the automotive regions in the south east of the GDR: Carl Hahn, the son of an Auto-Union AG Board member, grew up in Zwickau and Horst Münzner also came from the GDR and worked for the GDR shipbuilding industry until well into the 1950s.

This, combined with the growing openness on the part of GDR party and government institutions vis-à-vis economic contacts with the West, helped Volkswagen to follow up this proven cooperation almost immediately following political transformation and to become the largest industrial employer in the new German states with production facilities in Zwickau, Chemnitz, Dresden and Eisenach. In contrast, the company continued with its cautious approach in the CIS in view of the uncertain political situation. It was not until 1995 that Volkswagen Aktiengesellschaft named its first direct retailers in Moscow, St. Petersburg and Siberia with direct contacts to the automaker. This was followed on December 16, 1999 by the establishment of the sales subsidiary Volkswagen Group Avtomobil which was transferred to “OOO Volkswagen Group Rus” in 2003 and is the upstream sales company for retailers. Ten years later, the first market successes were obvious: Sales of Volkswagen brand vehicles rose from 499 in 1996 to over 11,700 in 2005. Group sales reached 27,300 units.

The production company “OOO Volkswagen Rus” was founded in Kaluga, 160 km south west of Moscow, on June 28, 2006 to expand the market presence. Because import duties increased the price of vehicles exported to Russia and because local production brought cost benefits, the company set about planning its own factory, and the foundation stone was laid on October 28, 2006. Given the increasing significance of Russia as a dynamic growth market, the company opted to build both brand models as well as vehicles from other Group brands such as Škoda, thus improving the market situation. With a scheduled workforce of approximately 3,000, production of the first two models – the Volkswagen Passat and the Škoda Octavia – began on November 28, 2007. Initially, the Kaluga plant assembled SKD kits of models from both brands, including the Volkswagen Jetta: The locally produced Volkswagen Tiguan was launched on the Russian market in August 2008.

It is planned to expand the annual capacity for assembling vehicles from both brands to a maximum of 60,000 units. At the same time, a body shop, paint shop and final assembly for a total of 150,000 vehicles are envisaged under the second phase of the Kaluga project. Drivetrains, including engines and gearboxes will be delivered to Kaluga from Volkswagen's German plants once the final stage of the Kaluga project has been completed, thereby safeguarding jobs in the German factories. With total investment in excess of 500 million Euros and the dealer network scheduled to double from the 63 dealerships in August 2008 to 120 in the medium term, the Volkswagen Group is adapting to conditions on the Russian automotive market, a market that plays a growing role in the Group's strategic planning. Strong sales growth since 2006 confirms this expansion strategy. While 19,100 Volkswagen brand models and 47,400 Group brand models were delivered to customers in Russia in 2006, Volkswagen brand sales had already risen to 50,500 by 2008, with all Group brands reporting sales of 132,000 units. The scene is set for continued dynamic growth, particularly if Volkswagen – as already announced – introduces attractively-priced models specially designed for the Russian market. <<

09

Valentina Fava

**Skill Formation in Škoda's Path to Mass Production:
Reworking Imported Technological and Organizational Knowledge**

“America,” the main plant of Škoda Auto, was built in the 1920s to initiate mass car production in Czechoslovakia. After its opening in 1928, it remained unchanged for the next 34 years until 1962. Only the re-organization of the enterprise resulted in the building of a new factory for the production of the first socialist “people’s car.” During those 34 years the static structural organization of “America” contrasted with enormous political, social and economic changes in society. Within the plant, planning experts, technicians, and Soviet (and even American) advisors kept striving toward modernization, thereby representing a sort of dynamic counterpart to the immobility that, to an external observer, would have appeared as the main characteristic of the plant. Re-organization plans, travel reports, minutes of the Board’s meetings, monthly and semestral reports were presented to ministries, central boards, planning institutions and even party committees. They provided unexpected vitality hidden behind the apparently static structure of the plant. The evidence of all these documents speaks for those people – managers, technicians or party officials – who in fact worked on how to operate the plant before the time would come for the production of the socialist “people’s car,” and who fought to maintain an efficient car production system.²⁸⁹

The present paper focuses on the skills developed by the technicians and managers of the Czechoslovak motor vehicle industry in dealing with imported organizational and technological knowledge. This is the starting point of a comparative research project dealing with the impact of the long term technical cooperation between automobile manufacturers in Eastern and Western Europe from the 1960s onward.²⁹⁰

In this respect, the present paper analyzes some technical documentation concerning the impact of the “American model of mass production” and the Soviet model of industrial organization on the Czechoslovak automotive industry.²⁹¹ It examines the period between the first “pilgrimages” by technicians to Fordist America and the reconstruction of the Škoda plant in the late 1950s and early 1960s. In those 34 years, Škoda was the recipient of two significant transfers of organizational and technological knowledge: the first, in 1946/47, was a consultancy from an American engineer, Alexander Taub, who designed a plan to restructure the Czechoslovak automotive industry based on the American model of mass production. The second was the re-organization of the Czechoslovak industrial apparatus according to the tenets of the Soviet model of industrial organization between 1949 and 1953. In both cases, in different ways, Czechoslovak technicians re-worked the imported knowledge developing an original firm-specific corpus of organizational and technological know-how, which in the late 1950s became crucial to the modernization of the Škoda plants and the development of the Škoda MB 1000, the first Czechoslovak (socialist) “people’s car.”

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The paper is part of my PhD thesis on the history of Škoda Auto (Taylorismo e socialismo. L’organizzazione del lavoro e della produzione alla Škoda-Auto di Mladá Boleslav), started in 1998 and defended in 2004 at Bocconi University, Milan. It would not have been possible to complete it without the help and support of Mgr. Lukáš Nachtmann at the Škoda-Auto Historical Archives in Mladá Boleslav.

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This kind of analysis poses the problem of the development of “capabilities” in the Socialist enterprise and of its growth strategy see: Bruce Kogut/Udo Zander: Knowledge of the firm, combinative capabilities, and the replication of Technology, in: *Organization Science* (3) 1992, 383-397; Mike W. Peng/Peggy S. Heat: The growth of the firm in Planned Economies in Transition, in: *The Academy of Management Review* (2) 1996, 492-528; Alfred D. Chandler: Organizational capabilities and the economic history of the industrial enterprise, in: *Journal of Economic Perspectives* (3) 1992.

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Americanization and its limits. Ed. by Jonathan Zeitlin/Gary Herrigel, Oxford 2000, 2-3; Robert Boyer/Michel Freyssenet: *Les modèles productifs*, Paris 2000, 19-25.

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Janos Kornai: *The socialist system*, Princeton 1992; Douglass C. North: *Institutions, institutional change and economic performance*, Cambridge 1990.

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For a company history of Škoda Works see: V. Karlický et al.: *Svět okřídleného šípů. Koncern Škoda Plzeň. 1918-1945, Plzeň 1999, 395-403. For the Škoda-Auto see: P. Kožišek/J. Kráwik: *L&K - Škoda: 1895-1995. Let okřídleného šípů*, Prague 1997. Mario R. Cedrych/Lukaš Nachtmann: *Škoda. Auto známá i neznámá. Prototypy i seriové automobily vyráběné od roku 1934*, Prague 2003.*

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Archives of the Czech Academy of Sciences, Masarykova Akademie Práce, box 100 see also: S. Špaček: *Život a práce u Forda. Zápisky československých inženýrů z Ameriky, Praha 1927*; S. Špaček: *Ford a My. Zkušenosti československých inženýrů z americké praxe u Forda s ohledem na naše poměry, Praha 1928*.

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Škoda Auto Historical Archives hence forth Aša, fond Akciová Společnost pro Automobilový Průmysl hence forth ASAP, 93, Resumé Zprávy o studijní cestě gen.rady V. Klementa do Spojených Států, vykonané spolu s Ing. J. Hauserem v době od 8-7 do 5-11-1927 ku zjištění výrobních poměrů v automobilovém průmyslu americkém, Mladá Boleslav, 5/2/1928. For the American industry see: David A. Hounshell: *From the American System to Mass Production, 1800-1932*, Baltimore/London 1984; Philip Scranton: *Endless novelty: speciality production and American industrialization, 1865-1925*, Princeton 1997.

The paper shows how Škoda's poor performance in this period was due to the institutional constraints of the political economy of socialism, specifically the scant physical resources allotted to automotive production, which prevented the modernization of the facilities, as well as to the mechanism of bureaucratic coordination, which hampered the efficient organization of supplies.²⁹² On the other hand, the paper attempts to demonstrate that, understanding the different levels of the planning apparatus as a unit of analysis, it is possible to prove the existence of significant industry-specific technological and organizational competences that allowed Škoda to grow and maintain a certain competitiveness on the global market.

Škoda auto was founded in 1925, as a result of the merger between the Škoda Works engineering and armament combine and Laurin & Klement (L&K) of Mladá Boleslav, one of the leading car factories in interwar Czechoslovakia. Consequently, in 1926 a new factory was built at Mladá Boleslav for the construction of auto bodies: it was called "America." In 1928 a modern machine workshop was added, specially designed for assembly line production. The building of the new plant was a step forward in the process of rationalizing the automobile sector. The decision by the board of L&K to accept the Škoda work's offer underscored the growing difficulties L&K was having in competing on the domestic and foreign markets while producing many models on a small scale, with high production costs and prices.²⁹³

In order to buy the machinery for the new plant, Škoda's engineers, just like the ones at Fiat, Peugeot, and the other major European car companies in the same period, started making "industrial pilgrimages" to Detroit. Among the rich documentation concerning the Czechoslovak engineers' trips, the travel report written by Vaclav Klement, founder of the L&K and member of the Škoda board, deserves special attention since it summarizes the particular Czechoslovak reaction to the Fordist philosophy.²⁹⁴

Although casting an admiring glance at the efficiency of mass production, Klement's approach to the American reality was pragmatic. He devoted much attention to the mechanization of the assembly line and the enormous productivity of American machines, but at the same time he noticed the huge differences between Ford on the one hand and Chevrolet, General Motors (GM), Dodge, and the other US manufacturers on the other. The latter only used the new hardware – conveyors, single-purpose machines – in some of the stages of production and assembly. His attention was attracted much more by the smaller carmakers or suppliers, who had more in common with the Mladá Boleslav plant in terms of type of production and machinery than by the giants. "Specialization" was, in his view, the "most distinguishing characteristic of the American automotive sector," and the most useful American lesson for the Czech industry to learn.²⁹⁵

He did not pay so much attention to other components of Fordism, which were inflaming the political debate in interwar Czechoslovakia. He saw the substitution of manual labor with machines and the deskilling of tasks as an ingenious and inevitable solution, though perhaps not without its drawbacks, to a problem specific to American industry – the difficulty of finding workers who were skilled and experienced. Such workers were in oversupply at Mladá Boleslav. Even the social benefits offered to US workers – high salary, housing, cafeterias, and so on – seemed to stem from an attempt to reduce the high rate of employee turnover, which was damaging to American manufacturers. The same could be said for distribution systems, advertising, and installment plan purchases. All seemed a product of the American context.²⁹⁶

In Klement's view, the challenge was to find a compromise between American productive modernity and the tradition of craftsmanship on which the Czechoslovak automobile industry rested. In fact, the Škoda factory, though newly built in 1928, equipped with American machinery and inspired by overseas innovations, did not have, nor planned to have, the dimensions and production capacity typical of plants more closely modeled on American factories. The new factory was built after the initial cycle of reorganization of European automobile plants, with the first modernization represented by Fiat's Lingotto plant in 1916, inspired by the Highland Park facilities. But it did not yet resemble the plants built just before and after the great financial crisis, which were modeled on River Rouge. "America" was thus inaugurated when Ford was already planning Dagenham in Great Britain and Cologne in Germany, while Citroën was inventing the chaine unique, which it later in 1933 realized in Javel, and Morris was reorganizing its Cowley plant in line with the principles of "progressive production," including completely automated construction of the auto body and a network of twelve miles of aerial conveyors.²⁹⁷

In 1936, Škoda had become the domestic market leader with total sales of 3,000 vehicles. Its share increased further during the following years with the launch of the 420 Popular, the first Czechoslovak "people's car." By that time, the Mladá Boleslav plant employed 6,000 workers and produced 7,677 vehicles, including 5,000 Populars.²⁹⁸

The American model of mass production, so cautiously approached in the period between the two wars, returned to the forefront after the end of the Second World War. In 1946, Škoda Auto was nationalized and re-named Automobilově Závody, Národní Podnik (AZNP, state owned enterprise for automobile production), becoming a monopolistic "big business," that, according to policy makers, was poised to take advantage of the predicted "boom of the motor car" on a national and international scale.

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Concerning scientific management in Czechoslovakia see: O. Smrček: Labor-ethics. A Czechoslovak Analogy of Technocracy, in: *Acta Historiae rerum naturalium necnon technicarum*, (21) 1989, 145-161. J. Janko/E. Těšinská: *Technokracie v Českých zemích (1900-1950)*, Prague 1999. Antonio Gramsci: *Americanismo e Fordismo*, Roma 1991, 42-43; Karel Čapek: *RUR & e L'affare Makropulos*, Torino 1971.

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Duccio Bigazzi: *La Grande Fabbrica. Organizzazione industriale e modello americano alla Fiat dal Lingotto a Mirafiori*, Milano 2000, 91-93; Jean-Pierre Bardou/Jean-Jacques Chanaron/Patrick Fridenson/James M. Laux: *The Automobile Revolution*, Chapel Hill 1982, 108.

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Mýtus a realita hospodářské vyspělosti Československa mezi světovými válkami. Ed. by E. Kubů/J. Pátek, Prague 2000, 120, 383-384; *Hospodářské a sociální dějiny Československa 1918-1992*. Ed. by V. Průcha, Brno 2004, 330-340.

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Aša, records Automobilové závody, národní podnik henceforth AZNP/p, 4. Alexander Taub: A people's technology. A report to dr. Ing. F. Fabinger, General Director of KOVO, Praha 1946, 6; F.H. Žalud: Přežili jsme. Zkušenosti z mého života 1919-1993, popsané pro má vnoučata a jejich generaci, Prague 1996, 61; V. Fava: Tecnici, ingegneri e fordismo. Škoda e Fiat nelle relazioni di viaggio in America, in: Imprese e Storia (22) 2000, 201-249.

During the Two-Year Plan (1947-1948), an engineer from General Motors, Alexander Taub, was given the task of drawing up – together with some Czechoslovak engineers – a plan to rationalize the Czechoslovakian automotive industry. According to Taub, the automotive sector could become the “driver” behind Czechoslovakian reconstruction. The key was to reach the minimum threshold of 200 cars-per-day for each plant, in order to exploit the advantages of economies of scale. This would lead to the production of a small, inexpensive car, a “people’s car” that would expand the still restricted domestic market. The key conditions for this development were the rationalization of the mining industry and land reform, which would provide raw materials and low-cost labor, respectively. Finally, it was essential to mechanize and automate production.²⁹⁹

Czechoslovak automobile executives imitated not only the American model of technology and layout organization, but also its corporate structure. The company of reference in this case was General Motors, a sort of “mosaic composed of small and medium-sized companies” that were supported by specialized component producers, which, in turn, functioned as central plants. The nature and origin of AZNP, a collection of nationalized plants, was well suited to this type of organizational structure, and the insistence on coordinating production in separate and geographically distant units coincided with the desire to create a balanced national economy, providing a possible solution to the problem of industrialization in Slovakia.

The plan was based on a detailed analysis of the dynamic and multifaceted American car industry of the period, partly due to Alexander Taub’s contribution and partly to the trip taken to the United States by a group of Škoda engineers in 1946/47. While at times it might appear to be merely slavish imitation, re-tracing on a smaller-scale the key steps in the development of the American sector, or even an anticipation of the productivity missions of the 1950s, a more careful analysis might consider it the logical result of the environment of the “socializing democracy” of post-war Czechoslovakia.

The February 1948 Communist political coup resulted in the abandonment of this plan and the flight of Taub back to the United States. However, the Czechoslovak technicians who had worked with Taub and visited leading American factories in 1947 had developed a critical and up-to-date view of the American model. Their reports illustrated how the war had accelerated technological advances in some processes, underscored the development of American industry, and confirmed that Ford, with its famous “any color you want as long as it’s black” philosophy, had for some time been overtaken by General Motors thanks to the latter’s guiding principles of “flexible

mass-production” and “mass-marketing.” Furthermore, they were clearly aware of the enormous differences between Czechoslovak and American production and market conditions, and again emphasized the need for “piecemeal borrowing,” a selective adaptation of American modernity to Czechoslovak reality.³⁰⁰ This special knowledge and the awareness of the need to adapt it to Czechoslovak conditions and tradition remained a benchmark for comparisons made by the Czechoslovak technicians in evaluating the principles and practical application of the Soviet Model.

The coup by the Communist Party in February 1948 followed by the launch of the First Five-Year Plan (1949 - 1953) changed the fate of the Czechoslovak automobile industry. The AZNP became a unit of production, devoted solely to production. Meanwhile, in 1949 the Communist government set up a central directorate in charge of the coordination and management of the motor vehicles and aeronautical production – the Československé Zavody, Automobilové a Letecké (ČZAL) or State-Factories for Automotive and Aeronautical Production.³⁰¹

This was the first of the many changes that involved the Czechoslovak industrial structure in the 1950s and that brought about its transformation according to the institutional constraints of the political economy of communism. In 1950, Soviet advisors decided to eliminate the ZAL and hand over the coordination and management of the automotive industry to a branch of the Ministry of Industry. With the disbanding of the ZAL, development was delegated to a research centre for motor vehicles (Ústav pro výzkum motorových vozidl, UVMV), similar to the Soviet Nauchnyi Avto Motorny Institut (NAMI – the Scientific Auto-Motors Institute).³⁰²

The first Five-Year Plan reduced the Czechoslovak automotive sector to a completely marginal industry, answering the needs of more strategic industries. The first consequence of this change was the denial of the financial help that had been requested by Taub and the Škoda technicians for the new plant and machinery. In terms of production technology, at the beginning of the 1950s Mladá Boleslav was basically twenty years behind the times. The machinery was old, much manual labor was still necessary, and the introduction of new organizational methods and techniques in the production process ran into bottlenecks caused by inadequate machinery, poor materials and scarce manpower.³⁰³

The documents produced by Škoda and ČZAL technicians between 1949 and 1951 reveal a progressively widening gap between technicians’ expectations concerning the reorganization of the sector and the actual results of the rationalization itself.

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Aša, AZNP/P, 4, See, in particular, the travel reports written by J. Frei, V. Matouš, V. Kremar, R. Kneschik and Z. Kejval.

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Alice Teichová: *The Czechoslovak Economy 1918-1980*, London/ New York 1984, 134-140; Alice Teichová: *Czechoslovakia. The halting pace to scope and scale*, in: *Big Business and the Wealth of Nations*. Ed. by Alfred D. Chandler/Franco Amatori Cambridge 1997, 447-61.

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Státní Ústřední Archiv hence forth SÚA records Československé závody automobilové a letecké, hence forth ČZAL, box 83, *Výroba automobilů v ČSR v rámci spolupráce s SSSR a zeměmi lidových demokracií*, April 12, 1950. See also Karel Kaplan: *Československo a RHVP (1948-1953)*, Prague 1995; Karel Kaplan: *Sovětské poradci v Československu. 1949-1956*, Prague 1993, 42-66. For the development of the Soviet automobile industry: Boris M. Shpotov: *Ford in Russia from 1909 to World War II*, in: Hubert Bonin: *Ford of Europe 1967-2003*, *Ford 1903-2003: The European History*, Paris 2003, 531-558, 525-529.

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SÚA, ČZAL, 83, *Výroba automobilů v ČSR*.

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SÚA, ČZAL, 86, Problematika výroby automobilů a motocyklů, (1949); 64, Program vývojového oddělení pro vozidla (1949); 83, Některá hospodářská porovnání mezi USA a ČSR (1949).

They were expecting that the Czechoslovak automobile industry would play a leading role in the new socialist division of labor, they were proud of their know-how and experience in auto making. Instead, they had to put pressure on the Party's officials to guarantee the mere survival of the industry.

ČZAL and Škoda technicians immediately reported both the contradictions and the risks involved in the marginalization of the automotive industry and predicted the problems that would arise, firstly, in the export of Czechoslovak vehicles into dollar markets, and secondly, in the country's motorization. As they tried to communicate to higher Party officials, the Czechoslovak automobile industry had profoundly different origins than the Soviet one, having developed through a process of "natural selection" in a market economy rather than having been created "ex novo" as a giant State-run enterprise in a planned-economy. For this reason, they thought their competences, together with the Soviet experience, could prove useful to the creation of a modern and socialist automobile industry.

They underscored how important it was to continue to pursue research and development that would result in a new model of car that could, when the time came, satisfy the popular demand for a "socialist people's car."³⁰⁴ With this aim they supported the creation of a research and development department, based on the GM example, that would carry out and monitor the designing of a new model as well as the coordination of the different production plans.

In 1949, the ČZAL developed a project designed to increase automobile production, which was, in effect, an elaboration of Taub's plan in the light of the "new situation" resulting from the first Five-Year Plan and the party's new directives. ČZAL's executives believed that it would be possible to enjoy some of the benefits of modern mass-production by intervening solely in the organizational aspects outlined by Taub, given that they were unable to modernize in terms of plant and equipment. This amounted to further centralizing the sector through the rationalization and standardization of production, and the improvement of worker productivity. The first step was to facilitate the process of "natural selection" that had resulted everywhere in the success of companies with greater "financial resources and technical experience," and to concentrate all of the country's automobile production in a single plant. The model of reference was still the United States, to which Great Britain increasingly adhered by 1949. In the former country, the market appeared to have been dominated by large companies for some time; in the latter, the 63 pre-war auto-manufacturers had, by the end of the war, merged into six groups, which accounted for 90 per cent of the cars produced in Great Britain.

The AZNP technicians tried to express their opinion and to defend Czechoslovak car production also on the occasion of the elaboration of plans for the international division of labor following the formation of the Council for Mutual Economic Assistance (CMEA). They supported a project for the specialization of production and assembly processes. The plan was to create a single, super-specialized facility for each car model and component, leading to a “mosaic-style production” covering the entire CMEA area. For Škoda, which, thanks to a long tradition in auto-making, could have played a leading role, the extension of rationalization and standardization to all of the plants in Eastern Europe was an important opportunity. Producing for the Eastern bloc (the Soviet Union excluded) would have meant having enough “market” to absorb a volume of production that would justify increased investment and the purchase of the machinery required for mass production. Had the huge potential of CMEA been used, an economy of scale over a vast area would have become a reality.³⁰⁵

Not only was this solution abandoned, but in 1951, with the ČZAL eliminated, the supreme economic council issued orders to transfer production of the Tatra 600 to the AZNP at Mladá Boleslav, progressively phasing out the Š1102, which had been made at Mladá Boleslav until that point. Though the technicians firmly opposed this imposition from above and managed to prevent a complete halt of production in 1952-53, the decision heavily damaged AZNP car production. Those two years witnessed the darkest moments of the AZNP history, with the gradual introduction of the measures of work organization already adopted in the Soviet Union in the late 1930s: disciplinary procedures against overtime, absenteeism and high labor turnover; rigid definition of production norms and standardization; an inflexible dispatching system, *khozraschet* (profit and loss accounting) and technical control over production (OTK).

At the workshop level, these measures were perceived as incomprehensible expressions of a power that became increasingly “administrative” and far removed from the interests and needs of production.³⁰⁶ The tension between the Party’s officials and the technical personnel – “conservative directors” plagued by “localism,” as they were referred to in official documents – steadily worsened. In 1952, the introduction of the dispatching system met with considerable resistance: the conflict between production heads and dispatchers forced the director of the factory to intervene with a series of communiqués both clarifying the separate roles of the co-ordination personnel and the production heads and specifying that the new organizational methods were Soviet in name only and they did not in practice change the work organization of the Czechoslovak factory. Increasingly, the enterprise’s records show the surprise and disapproval of factory personnel at the swelling of the bureaucratic apparatus -with the consequent

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SÚA, ČZAL, 86, *Problematika výroby automobilů*.

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Yves Cohen: *Administration, politique et techniques: Réflexions sur la matérialité des pratiques administratives dans la Russie stalinienne (1922-1940)*, in: *Cahiers du Monde Russe (44/2-3) 2003*, 269-307.

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Aša, *AZNP*, 11, (1953), 15, (1953).

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J. Pernes: Snahy o překonání politicko-hospodářské krize v Československu v roce 1953, Brno 2000; J. Pernes: Dělnické demonstrace v Brně v roce 1951, in: Soudobé Dějiny (1) 1996, 23-41; see, also: O. Ulč: Pilsen: the Unknown Revolt, in: Problems of Communism (3) 1965, 46-49; Mark Kramar: The Early Post-Stalin Succession Struggle and Upheavals in East Central Europe. Internal – External Linkages in Soviet Policy Making (Part 1), in: Journal of Cold War Studies (1) 1999, 21.

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Aša, AZNP, 1, 1953.

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Karel Kaplan: La crisi cecoslovacca, in: Annali della Fondazione Feltrinelli 1982, 267-326.

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Aša, AZNP, 8, Oborová Konference pro osobní automobily konaná dne 30-31 března 1956. It has to be noted that many of the technicians involved had taken part in the Taub consultancy (Kejval, Vigner, Vykoukal).

proliferation of paperwork- and the simultaneous introduction of the *khozraschet*, a “truly socialist system of organization of labour,” which consisted of the calculation of profits and losses for each work-unit.³⁰⁷

Finally, the tension in the factory and in the country came to a head following the currency reform of 1 June 1953. Two weeks before the events in Germany, the elimination of the ration card system in Czechoslovakia provoked spontaneous demonstrations, with workers taking to the streets in protest over the reforms, demanding that the government guaranteed their salaries.³⁰⁸

The more open climate which characterized the Czechoslovakian “New Course” also had an impact on AZNP: In the autumn of 1953, under the pressure of the Ministry of Industry, a secret document was prepared, stressing all the limits of the previous managerial approach. The judgment was unsparing: “short-sighted management,” flattened to a strictly normative dimension, had caused the production unit more problems that it had in fact solved. Moreover, the document presented the issue of transferring Soviet experience into the Czechoslovak industry, as well as the need for a less naive adoption, more respectful of local tradition and of the existing production system.³⁰⁹ However, unlike in Poland and Hungary, the “New Course” in Czechoslovakia provoked neither real discussion of the distribution of power in the Communist Party nor a concrete proposal for the democratization of business management through the formation of workers’ councils. And yet the “fight against bureaucracy,” the awareness of the inadequacy of the Stalinist model for Czechoslovak industry, and the need to recover some of the national tradition, all of which emerged forcefully in 1953-1954, set in motion processes that would have important consequences for the country.³¹⁰

As far as the automobile industry was concerned, the creation of a specific Ministry for Transportation Vehicles and Agricultural Machinery in 1955 marked a change in the government’s attitude towards automotive production and the beginning of a new phase for the Czechoslovak auto industry, characterized by particular attention to technological development and plant modernization. In March 1956, a conference of experts employed in the automobile industry came up with a proposal for constructing a new plant for the mass production of cars to be built in Mladá Boleslav. Times had changed and the planners finally seemed to be seriously considering some of the proposals made by the AZNP nearly a decade earlier.³¹¹ By end of the 1950s, the “America” workshop had become an auxiliary factory and machine tool shop, while the new plant, with a covered surface of 800,000 m², boasted 40 buildings and could turn out 600 automobiles a day. By 1964, the Škoda MB1000, the first Czechoslovak socialist “people’s car,” was finally reality.

In conclusion, this paper illustrates how during the 1950s and 1960s the technological and organizational development of the Czechoslovak automobile industry was managed by technicians who received their technical education in the interwar years and had an impressive grasp of the requirements for efficient production within the global automobile industry. Although most of them were confined to production and research functions, in the long run, their efforts shaped the growth of the industry.

Nevertheless, the modernization of Škoda facilities in the late 1950s opened a new phase in the history of the automobile industry in the country. The search for greater industrial integration in the CMEA bloc failed, and many Eastern European producers established new contacts with capitalist enterprises. It remains to be seen if and how these new contacts could, in the socialist institutional context, generate industry-specific “capabilities” able to maintain the “broad basis of knowledge and competences in the auto industry” which is considered to have decisively influenced the post 1989 investments in the area. <<

10

Dirk Schlinkert

“Corporate Culture” – some Remarks on Concept and Practice and a Brief Case Study

Every company has its own culture, every company has an unmistakable and unique culture that has evolved historically. However, whether a company “owns” a culture in the literal sense of the word³¹², and whether that culture can be successfully steered and changed by the company’s own decisions is an entirely different question. Even today, there is a management theory based on the idea that “corporate culture” is a strategy tool, which is sufficiently malleable so as to be able to be shaped by managers to compensate for deficits within the company.³¹³

Skepticism is called for when “culture” is so obviously mobilized as a management instrument. This is a straightjacket concept that is incompatible with the demands of corporate history in keeping with the times and oriented towards cultural history. Thomas Welskopp, our colleague from Bielefeld, recently said that “corporate historians would be loathe to reduce the term ‘corporate culture’ merely to transaction or opportunity costs. That would constitute a reductionist view of both ‘culture’ and ‘company’.”³¹⁴

There is little to add to that. This approach is immediately understandable and simultaneously represents a productive challenge for professional cultural historians to start the search for a theoretical concept that combines present-day approaches to corporate history with the issues of “cultural history” using the example of “corporate culture.” That in itself is quite a daring balancing act. Nevertheless, a concept of cultural history integrating economic terms and realities, brings the prospect of at least dual profits: on the one hand, it enhances the acceptability of corporate history as an academic discipline and thus, generates greater acceptance among management talent in the future, and on the other hand, “cultural history” is broadened through the inclusion of hard economic facts, which were often neglected in the past.³¹⁵

The “history of consumption” already constructively triggered this change in perspective about a decade ago.³¹⁶ “Business history” in England took an important step forward with “Business History and Business Culture,” a volume of essays from a business history conference edited by Andrew Godley und Oliver M. Westall and published in 1996, which forged the first solid link between business history and cultural history.³¹⁷ It is high time for corporate history, particularly in Germany, to catch up with the international trendsetters and start a new dialog in the diverse field of “corporate culture” after so many long years spent warring with words.³¹⁸ The “functionalistic understanding”³¹⁹ of economics could form the starting point for the discussion. Corporate history is about understanding and clearly naming the differences. So what makes the difference?

³¹² Cf. *Business History and Business Culture*. Ed. by Andrew Godley/Oliver Westall, Manchester 1996, 8: “Implicit in all this discussion is the theme of the ownership of a culture: Can it be imposed and controlled? Or does a successful culture usually emerge from the individuals and groups who share it?”

³¹³ Hartmut Berghoff: *Moderne Unternehmensgeschichte*, Paderborn 2004, 160ff.; cf. on “culturell engineering”: Siegfried J. Schmidt: *Unternehmenskultur*, Weilerswist 2004, 127ff.

³¹⁴ Thomas Welskopp: *Unternehmenskulturen im internationalen Vergleich – oder integrale Unternehmensgeschichte in typisierender Absicht?*, in: *Wirtschaftsgeschichte als Kulturgeschichte*. Ed. by Hartmut Berghoff/Jakob Vogel, Frankfurt am Main 2004, 267; Anne Nieberding/Clemens Wischermann: *Unternehmensgeschichte im institutionellen Paradigma*, in: *Zeitschrift für Unternehmensgeschichte* 43 (1998), 35-48; Theodor M. Bardmann/Reiner Franzpötter: *Unternehmenskultur. Ein postmodernes Organisationskonzept?*, in: *Soziale Welt* 41 (1990), 424-440.

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Margit Grabas: Kultur in der Wirtschaftsgeschichte, in: VSWG 94 (2007), 175 ff; Hartmut Berghoff: Nutzen und Grenzen des kulturwissenschaftlichen Paradigmas, in: VSWG 94 (2007), 180f.; Thomas Welskopp: Das institutionalisierte Misstrauen, in: Unternehmenskommunikation im 19. und 20. Jahrhundert. Ed. by Clemens Wischermann, Dortmund 2000, 199f.; Otto G. Oexle: Historische Kulturwissenschaft heute, in: Interkultureller Transfer und nationaler Eigensinn. Ed. by Rebekka Habermas, Göttingen 2004, 25-52; Hansjörg Siegenthaler: Geschichte und Ökonomie nach der kulturalistischen Wende, in: Geschichte und Gesellschaft 25 (1999), 278-301 ("Synergiepotential", 301).

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Europäische Konsumgeschichte. Ed. by Hannes Siegrist, Frankfurt am Main 1998 and the recently published articles on the "West German Mass Consumption 1950-2000", in: Economic History Yearbook 2007/2.

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Oliver M. Westall: British Business History and the Culture of Business, in: Godley/Westall, Business History 21-45. Cf. Jakob Tanner: "Kultur" in den Wirtschaftswissenschaften und kulturwissenschaftlichen Interpretationen ökonomischen Handelns, in: Handbuch der Kulturwissenschaften. Ed. by Friedrich Jaeger/Jörn Rüsen, Stuttgart 2004, vol. 3, 195ff. and Stephen Procter/Michael Rowlinson: The Culture of Business History and the History of Business Culture, in: Business History. Theory and Practice. Ed. by Tony Slaven, Glasgow 2000, 45-57.

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Berghoff/Vogel, Wirtschaftsgeschichte, 13.

However, the conceptual "donkey work," in other words, the historically founded and historically derived definition of "corporate culture," precedes any reflection on what makes the difference. Both parts of the notion, namely "corporate" and "culture" and their semantic relationship, require definition. That would seem to be the only way to shed light on the dense thicket of highly heterogeneous interpretations, which have flourished since the boom started in the early 1980s. And this boom continues: "corporate culture" is a topic that remains extremely popular and the discussion continues to propagate.³²⁰ Our section on "producers' community and corporate culture" is just one example.

This is not the right place to sift through the many interpretations. I would like to cut my way through the thicket with two tentative definitions: let me begin with "culture," and a very useful transferable concept introduced by Jürgen Kocka as early as 1977 following from Max Weber and Clifford Geertz.³²¹ He defines culture as "a system (a fabric or pattern) of symbols (...) that brings a meaningful interpretation of reality for a large number of people (a professional group, a class, a religious community, a village, a nation, the members of a society, etc.), thus making possible both their social relations (communication, identity and demarcation) as well as their relations to themselves and their surroundings (including nature). Such interpretations contain information on true and false, good and bad (just and unjust), beautiful and ugly. They help to determine the context in which people perceive and interpret their reality, how they make their moral judgement of facts, actions, innovation."³²²

In many respects, this concept of "culture" is very useful when referred to in the context of corporate history that defines its subject – namely the company – as "an independent economic unit that manufactures products and has a specific legal form."³²³ First of all, this formal definition safeguards the institutional core of a "company"; it marks the boundaries for setting out in search of the meanings, attributes and ideas that govern the actions of the participants – both management and employees – in a complex social organization. Using this definition, the company – once again in the words of Thomas Welskopp – emerges as a "cooperative and confrontational arena for implementation and action where the legitimation, even for core economic functions, is derived from these relationships and, as such, always constitutes 'culture', but where the company does not necessarily 'own' a culture."³²⁴

In this briefly sketched constellation, economics and history have much to tell. The "history" factor could acquire much greater significance. It is worth bearing in mind that in the 1980s, when the practice of using "culture" as a steering mechanism gradually took hold in the minds of senior managers and was introduced on a day-

to-day basis³²⁵, there was apparently hardly any demand for historians or historical knowledge. Looking back, the process seems to have been implemented without the help of history specialists, either in the form of external consultants from history faculties or historians on the company payroll.

This is quite extraordinary, given that it is an undisputed fact in “business history” circles that “the culture of business is a product of its history” and that “the starting point in understanding the culture of any business must be its history.”³²⁶ Two schools of thought seem to be leading parallel lives, each blocking communication and knowledge flow. But “history matters,” even in an approach oriented to the “principal-agent” theory as argued by Stephen Nicolas: “Culture prescribes rules and habits of behavior which employees accept, follow, and use as the basis of action. Recurrent transactions between agents and principals build trust, cooperation, and reputation, allowing successive modifications to the firm’s culture through on-going learning. History matters because the creation of a corporate culture is a cumulative investment in shared values – or a collective memory – passed on from the present generation of employees to the next.”³²⁷

“History matters,” and this concept of “corporate culture” leaves no doubt about that. But only when the senior managers in a company have grown to appreciate that living history is part of corporate success and has a positive impact on production or sales will capital investment in “history” start to increase.³²⁸ Corporate history must come up with understandable explanations and tangible evidence on issues such as: What does culture do? What function does it have? How does it arise, evolve and change? How are individuals linked to organizations and a wider society? What provides the cement that binds these together? That is when corporate history will prove a meaningful complement to purely business-focused concepts of “corporate culture” and become a serious contender for investment capital and budget funds. However, “corporate culture” research in the automobile industry is still quite a long way from providing reliable and empirical findings. And our conference in Moscow can surely start us off in the right direction and help us to discover out different facets of “corporate culture” in the international automobile industry.

The go-ahead for a “corporate culture reform” was given in Wolfsburg in 2003: As part of a far-reaching program to cut costs and enhance competitiveness (“ForMotion”), Volkswagen gave itself a “company constitution” in the form of seven Group Guidelines which, as the CEO at that time put it: “apply throughout the entire Group, just as a state is governed by its constitution.” The new model was given top priority by top management: “We recognized that we as a Group must generate a

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Welskopp,
Unternehmenskulturen
269; Berghoff,
Unternehmensgeschichte, 154f.

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Cf. on the different concepts
of “corporate culture” the
intense review of Schmidt,
Unternehmenskultur 24-38
and Andreas Reckwitz: Die
Kontingenzperspektive der
“Kultur”, in: Jaeger, Handbuch
vol. 3, 1-20; Berghoff,
Unternehmensgeschichte,
155ff.; Ulrich Brinkmann:
“Unternehmenskultur”. Aufstieg
und Niedergang eines Konzepts,
in: Kultur und ihre Wissenschaft.
Ed. by Ute Helduser, Konstanz
2002, 203-208, 214ff.; Roy
Church: Historical Foundations
of Corporate Culture. British
Leyland, its Predecessors and
Ford, in: Goodley/Westall,
Business History, 138-161.

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Karsten Kumoll: Clifford Geertz,
Die Ambivalenz kultureller
Formen, in: Kultur. Theorien
der Gegenwart. Ed. by Stephan
Moebius, Dirk Quadflieg,
Wiesbaden 2006, 1-90.

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Jürgen Kocka: Sozialgeschichte,
Göttingen ²1986, 153; ders.:
Deutsche Unternehmenskultur
in historischer Perspektive,
in: Unternehmenskulturen.
Deutschland und Amerika im
Vergleich. Ed. by Manfred Pohl,
Frankfurt am Main 2003, 21ff.;
Clifford Geertz: Kulturbegriff
und Menschenbild, in: Das
Schwein des Häuptlings, Berlin
1992, 70ff.; cf. Brinkmann,
Unternehmenskultur, 208-214
and Otto G. Oexle, Memoria als
Kultur, Göttingen 1995, 27ff. Cf.
Klaus Tenfelde: Mitbestimmung
und Unternehmenskultur
in Deutschland: Die
Chemieindustrie im 20.
Jahrhundert, in: Stimmt die
Chemie?. Ed. by id./Karl-Otto
Czikowsky, Essen 2007, 12-
32; Heidemarie Uhl: “Kultur”
und/oder “Gesellschaft”? in:
Kulturwissenschaften. Ed. by Lutz
Musner, Freiburg 2003, 245ff.,
250ff.

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Cf. Berghoff, Unternehmensgeschichte, 42ff.; Werner Plumpe: Perspektiven der Unternehmensgeschichte, in: Sozial- und Wirtschaftsgeschichte. Arbeitsgebiete, Probleme, Perspektiven. Ed. by Günther Schulz, Stuttgart 2005, 403-425; on the issue "What is business culture?" cf. Oliver M. Westall: British Business History and the Culture of Business, in: Godley/Westall, Business History, 21-45.

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Welskopp, Unternehmenskulturen, 273.

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Welskopp, Unternehmenskulturen, 269ff.; Berghoff/Vogel, Wirtschaftsgeschichte, 23f.; Irene Götz: Erzählungen als Indikatoren für Unternehmenskultur, in: Wischermann, Unternehmenskommunikation, 228ff.

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Westall, Business 24; cf. Charles Dellheim: Business in Time. The Historian and Corporate Culture, in: The Public Historian 8 (1986), 9-22.

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Stephen Nicholas: The New Business History, in: Historical Analysis in Economics. Ed. by Graeme D. Snooks, London 1993, 143-157; Mark Casson: Culture as an Economic Asset, in: Godley/Westall: Business History, 57f., 74f.; cf. Marc Bloch: Historische Kultur und wirtschaftliches Handeln, in: Aus der Werkstatt des Historikers, Frankfurt am Main 2000, 39-42.

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Berghoff, Unternehmensgeschichte, 13ff.; Clemens Wischermann: Unternehmensgeschichte als Geschichte der Unternehmenskommunikation, in: Wischermann, Unternehmenskommunikation, 48f.

uniform identity. In order to achieve this, the first thing we did was define our joint values. These new Group Guidelines are the foundation upon which we build our identity and, in turn, the positive basic mood." (Bernd Pischetsrieder 2004).

A complex identification process at management level was followed by a no less complex implementation phase under the guidance of a "Corporate Culture/Group Guidelines Office" "which provides support and advice to the Group's local business units with regard to their change process, and represents a point of contact for all issues relating to Group Values and Group Guidelines." The primary objective was to bring about a change in attitude throughout the Group: "Everyone begins with their own attitude and changes what they can themselves." Here is one example: "customer nearness" heads the code of values with a direct and personal exhortation: "Everyone is a service provider to the customer. It is our objective to know and understand our external customers and their needs. Our work is directed to fulfilling these needs regardless of our position. This attitude is also taken with regard to our internal customers."

This brief outline probably suffices to illustrate the method and the key building blocks of "cultural engineering" as begun in the Volkswagen Group five years ago. It constitutes top-down identification with values.³²⁹ The management – incidentally with the broad support of the Works Council – prescribed their idea of right and wrong behavior to over 340,000 Group employees all over the world during a time of crisis.

The "ForMotion" cost-cutting program did indeed bring a billion euro savings. But the long-term, quantifiable impact of the Group Guidelines in this process is unknown. As far as I am aware, there is no check-list for evaluating this kind of investment in "corporate culture" and for drawing up a reliable profit and loss account. Be that as it may, Volkswagen's "cultural engineering" efforts represent an investment in the steering potential of "corporate culture" developed by business theory. Whether the new values have in actual fact been absorbed into the mentality of managers and employees as decision-relevant criteria and have indeed become part of a new identity – in other words, whether this code of moral principles has become reality – is something that can hardly be determined today.³³⁰ It is left to future historians to judge whether the Volkswagen culture changed significantly during the first years of the new millennium. What is of interest to our approach is not only whether the Volkswagen Group Guidelines can be taken as the latest example of "cultural engineering" in the automobile industry, but also whether this model is the starting point for identifying other examples in global industry perhaps aimed at a similar crisis management program.

“Corporate culture” does not stop at the factory gates. When an automaker decides on a new location in its own country or outside its national borders, it exports its business model and sets up a factory or a subsidiary to unfamiliar surroundings. The managers charged with building the factory naturally bring their company’s own “coporate culture” with them. But the new subsidiary cannot be a cultural island on foreign territory. New sites engender very diverse adaptation processes, they force “acculturation.” How does a company’s culture change in the transition to a global player with a worldwide production and sales network? Seen in a global context, what is the relationship between the “central culture” of headquarters and the “local cultures” at plants?

As far as cultural phenomena are concerned it is difficult to operate with national parameters.³³¹ For many years, languages and traditions, mentalities and standards were primarily of a regional and local nature. We are used to thinking of culture in a national framework. Take the “made in Germany” seal of quality, for example. The internationalization of major corporations has long since broken through these boundaries and “corporate culture” has been “internationalized,” even globalized. So we need a comparison, which is not made on an international level, but which produces specific “national approaches” along the lines of “American, German, Japanese or French automobile culture.” What sense does it make to talk about a national “corporate culture” in a global economy? Surely the alternatives are “Ford culture,” “Volkswagen Group culture” or “Toyota culture”?

And we must focus our attention more to the interaction between “corporate culture” and communication.³³² If culture is seen as a steering instrument in the sense of “cultural engineering,” attention focuses on the ways and means of communicating these values, particularly at operational level. Publicity – internal and external – is the prerequisite for anchoring the new role models in the hearts and minds of employees and customers. Is looking for clues in company magazines, internal leaflets or publications, press releases or ads – in other words, accessing all kinds of communication media – a sound approach for defining “corporate culture”? What are the alternatives for getting behind the official façade and incorporating unofficial networks as well? In your opinion, what are the chances for oral history?

Research into “corporate culture,” as we have seen, has been booming for over twenty years. It is definitely more than a fad triggered in the USA, which spread rapidly to Europe. This “culture transfer” is one aspect of the “Americanization” of German and European industry and science in the early 1980s.³³³ Can you identify the causes of this transfer as well as further causes for the persistent and unabated interest in “coporate culture” in post-modern society?³³⁴

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Cf. Brinkmann, Unternehmenskultur, 218-224 and Schmidt, Unternehmenskultur, 127-147.

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Cf. Godley/Westall, Business History, 7: “If modernity is characterized by individuals who are truly autonomous, why should they be attracted by, or be dependent on, a business culture created by a leader or a large organization?” Berghoff, Unternehmensgeschichte, 159f.

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Friedrich Jaeger: Historische Kulturwissenschaft, in: ders., Handbuch vol. 2, 534ff.

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Cf. Wischermann, Unternehmensgeschichte, 31-40.

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Harold James, Die deutsche Wirtschaft und amerikanische Einflüsse, in: Pohl, Unternehmenskulturen, 37-48.

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Bardmann/Franzpötter, Unternehmenskultur, 429-438.

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Jürgen Reulecke: *Generationalität und Lebensgeschichte im 20. Jahrhundert*, München 2003; *Generationen. Zur Relevanz eines wissenschaftlichen Grundbegriffs*. Ed. by Michael Wildt, Hamburg 2005; Jan Assmann: *Erinnern, um dazuzugehören*, in: *Generation und Gedächtnis*. Ed. by Kristin Platt, Opladen 1995, 51-75.

“Generation” is a term that has been celebrating a remarkable comeback recently, particularly in the humanities in Germany.³³⁵ I believe the term is a very appropriate tool, particularly given that the generation of managers that was taught the possibilities of “cultural engineering” in the economics courses of the late 1970s has now moved into executive management and uses this steering instrument by introducing codes of values, etc. What impact does this generation change among senior executives, managers and, obviously, the workforce have on “corporate culture”? <<

11

Andrei K. Sokolov

**Changes in the Workforce at the Volga Motor Works
during the Soviet Period**

The construction of the Volga motor works (VAZ) coincided with an attempt to carry out a motoring revolution in the USSR. The project lay at the heart of attempts to reform the Soviet economy in the second half of the 1960s, and to strengthen the Soviet Union's economic cooperation with the West within the framework of the Comecon (Council for Mutual Economic Assistance). The car factory in Tol'iatki, which was built in cooperation with the Italian company Fiat, was intended not only to meet the rising demand of the Soviet people for small cars. It was also designed to become a shining example of the technological renewal of the Soviet motor industry, and to become a driving force in stimulating other areas of industry. Moreover, it was intended to serve as a model for the inculcation of contemporary forms of organization and the stimulation of labor.

The first part of the factory was commissioned in 1971, and in 1975 667,000 cars had been produced. The number of cars produced annually increased insignificantly. Toward the end of the Soviet era in 1989, VAZ produced 733,000 cars. Then, in 1990–1991, production began to decline. At the same time, the number of employees increased rapidly. When the factory was commissioned in 1971, 22,000 people worked there, not including those who were involved in construction work. At the end of construction, the number of workers at the factory increased. In January 1976, the workforce numbered 92,000. In 1990, the number had increased to 128,900, a number that far exceeded the number of workers at other large-scale automobile factories in the world. This growth had nothing to do with any increase in production. It had to do with the expansion of many functions an enterprise had to carry out in the Soviet era: the setting up of auxiliary services and subsidiary enterprises, the creation of a social sphere both at the factory and around it, the construction of housing, kindergartens and childcare facilities, medical care, a healthcare system, and so on.

Large-scale enterprises were obliged to produce so-called “goods for the people's consumption” in addition to their normal production. The production of these goods was a burden, using up funds and resources essential for motor production. All enterprises and institutions were obliged to provide labor for agricultural work. In addition to this, VAZ was from the very beginning the heart of a “company town.” The life of Tol'iatki or “Motor City” was expected to become an example of the new socialist way of life.³³⁶

The production corporation AvtoVAZ was formed in 1971. The founding of industrial combines or scientific-production corporations was prevalent in all the leading fields of industry during these years. By itself, the idea of founding such corporations might perhaps have become an important branch in the formation of corporations

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VAZ. Stranitsy istorii. Tom vtoroi,
Tol'iatki 1996, 41.

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The story of the Volga motor factory in the Soviet period is told in full in the book: S. V. Zhuravlev/M.R. Zezina/R. G. Pikhov: AVTOVAZ mezhdru proshlym i budushchim. Istoriia OAO "AVTOVAZ" 1966–2005, Moscow 2006. This paper concentrates solely on the state of labor relations.

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This would be characteristic of the other heads of production that would succeed V. N. Poliakov after 1975, A. A. Zhitkov, V. I. Isakov and V. V. Kadannikov.

based on interdisciplinary connections analogous to those that had already formed in the West. Soviet enterprises, however, were not flexible enough. They did not lend themselves to reorientation. Thus, the AvtoVAZ corporation was a conglomerate of factories. Toward the end of the Soviet period, the corporation's workforce numbered 238,300 – in part by incorporating new subsidiaries. The idea of a workforce and the formation of a corporate way of thinking was, for the most part, concentrated in the main factory: VAZ and AvtoVAZ were usually regarded as similar ideas.³³⁷

In this paper I attempt to answer the following questions: To what degree did the management succeed in forming a united workforce? How did they acquaint their workforce with corporate culture? Or, to put it in the language of the time, "factory patriotism"? Why did the labor productivity fall continuously apart from its start-up period? Why did labor discipline decline? Why did social apathy, drunkenness and theft increase year by year?

Assembly of the VAZ workforce was being carried out from the very beginning of construction. Public calls to action were widely used, above all appeals to young people to go to the "construction site of the century." These factors played their part in attracting people. Ordinary forms of mobilization and work placement, like taking workers from other motor works and the recruitment of graduates and technical experts' institutes, played a more significant role. A part of the workforce was enlisted from those who had been involved in construction. As the factory developed, however, the hiring of workers from "outside" or from the free labor market took on more and more significance.

Especially significant was the formation of the so-called "General Corpus," consisting of the heads of production, services, workshops and departments. The director of the factory, V. N. Poliakov, dealt with this matter himself. The demands that he made of the workforce were unreserved devotion to their work, commitment, and a willingness to endure hardship and difficulty. Although Poliakov was a proponent of the acquisition of up-to-date western technology and the modern application of assembly-line production, he was a convinced supporter of the Soviet system, which allowed the "concentration of the necessary power in the place where it was needed" in order to carry out large-scale tasks like the completion of the VAZ project. One has to admit that, due to the authority and energy of Poliakov and the management team, VAZ was relatively successful in Soviet times. On the other hand, the weaker administrative pressure became, the less noticeable were the achievements in production.³³⁸

But the management still had a dream of creating a body of “officers and junior officers,” which would provide them with the necessary preconditions for further growth. A nationwide campaign was organized through the press, radio and television with information about the new technology being installed at VAZ with the help of Fiat, about the new factory and the town being built around it, and about trips abroad. This campaign undoubtedly played its part in attracting people, though there was a known danger. Those who arrived in Tol’iatti and did not find what they had been promised were disenchanted. At the beginning they had to live in unbelievably bad conditions. They lived in crowded dormitories and site huts, with no provision for transport, etc. Promises that things would be fine “tomorrow” were met with a deserved dose of skepticism.

The workforce at VAZ was predominantly young. They had been attracted to Tol’iatti by a desire for a higher level of manufacturing culture, better working conditions, the opportunity to work with new and varied machine tools, the desire to obtain housing – for which, in other circumstances, young people would have to wait for decades – and, of course, to obtain a car. Many young people played an active role in the beginning of VAZ by developing the living environment, the greening of the city, and by creating healthcare and sports facilities. No little importance was given to the development of “factory patriotism,” in which the main role was to be played by public organizations. But the “official line” dominated their work, with an emphasis only on the achievements and successes of the factory, which concealed the realities of production and the lives and welfare of the workers. This undermined the effectiveness of the measures to encourage “factory patriotism.” Surveys conducted among the workers revealed a lack of company pride in their factory. At the end of the 1970s, only 24 per cent of workers stated that they were proud of the factory, 17 per cent said that any pride was gone, and the remaining 59 per cent were indifferent.³³⁹

Relations between the factory’s managers and the workers were determined to a large extent by the multi-functionality of the Soviet enterprise. Many of those who went abroad saw the difference between western managers and their Soviet counterparts: the latter being called upon to deal not only with manufacturing issues, but with all aspects of their workers’ lives – helping them obtain housing, dealing with family issues, getting them to engage in volunteer work, in socialist competition, etc. The Soviet manager was burdened with a whole host of other responsibilities and the chances of dealing with them depended on the post he held. As a consequence most of the important issues in a worker’s life were, at the end of the day, the responsibility of the director. The role of the director in a Soviet enterprise was all encompassing. This was to some extent the result of centralization, which has to do with the long tradition of Russian paternalism. Poliakov, for example, was known at the factory as “Papa,” and

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Zhuravlev, AVTOVAZ 99–100.

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TGA. fond R-352. op. 4. d. 1159.
ll. 49–50.

his older successor, A. A. Zhitkov, as “Grandfather.” In the time of their successors, V. I. Isakov and V. V. Kadannikov, many of the issues concerning the factory were dealt with in meetings with the factory’s workforce, or in the course of regular meetings about personal issues which took up the lion’s share of their working time.

Not everything in the workforce’s lives depended on the personality and actions of the director and his “team.” It is worth pointing out that, in the Soviet economy, the state allocated fewer resources for social needs than it made available for the purpose of production. In the measures taken to improve the lives and livelihoods of the workers we can observe a constantly increasing hardship and a constant lengthening of the lines. With the extensive increase in labor resources, the social sphere of the factory could not keep up with requirements. This created growing social tension. Subjected to the leveling principle of the waiting line, the factory’s workers reacted sharply to any kind of favoritism or abuse that went on in the distribution system.³⁴⁰

The construction of the Avtozavodsk region, i.e. the new section of Tol’iatti, commenced at the same time as the building of the manufacturing facilities. By the middle of the 1980s, five million square meters of housing, 37 schools, hospitals with capacity for 2060, and so on, had been built. Much effort had been put into the greening and the improvement of the environment of the city. Wide, straight streets had appeared. Hotels were being built, along with a main city shopping center, dental clinics and other facilities. The growing city of Tol’iatti, on the outside, seemed to be an “island of socialist prosperity.”

But social and cultural problems were far from being fully resolved. State supplies were not being delivered in a systematic fashion. In particular, the construction of shops, civil amenities and communications was not being carried out to a satisfactory degree, where disbursements only came to 70 per cent of the planned level. The factory was compelled to build (from its own funds) such important facilities as a community center (“house of culture”), a hotel, a swimming pool, a sports complex, child-care centers, clinics and housing. In 1985 there were 29,000 workers on the waiting list for housing, while Tol’iatti’s schools were meeting only 83 per cent of demand. Retail, catering and civil facilities were meeting only 54 per cent, and medical and cultural facilities were only satisfying 50 per cent and 17 per cent of demand, respectively. In 1986, the maximum funds set aside by Gosplan for these purposes, 49 million rubles, was 19.4 million rubles short of what was required.³⁴¹ In the 12th Five Year Plan, the limit on what could be provided for social construction was cut again (by 47 per cent in comparison with the previous Five Year Plan). Gorbachev’s reforms assumed an expansion in enterprises’ rights to use the social development fund, and while these funds increased slightly, it was clearly not enough.

In January 1990, of the 227,000 VAZ workers 111,586 lived in apartments, 31,052 in “small family accommodation” (communal apartments), 5,915 in their own houses (which were, as a rule, of wooden construction), 5,229 in private apartments, and 14,471 in hostels. The number of persons without permanent housing came to 39,264.³⁴² On top of this, there were already 36,700 workers on the waiting list for “improved housing conditions.” The average waiting time for an apartment was 12–13 years, as opposed to 4–5 years in the 1970s. It is worth adding that a significant amount of the housing that already existed was in need of major refurbishment.³⁴³

Another problem was the fact that young workers often lived in hostels, which were hotbeds of social passivity, drunkenness and crime. As P. A. Nakhmanovich, a witness to each stage of the factory’s history, observed, they turned into a dumping ground for a marginalized, largely rural, and mainly professionally unqualified segment of the population.³⁴⁴ Main reasons for this were the shortcomings in the area of leisure, and under-achievement in ideological and educational work.³⁴⁵ If life in the hostels was a temporary and impermanent thing, however, one would not have to rely on the effectiveness of such measures. Each year, between 3,000 and 3,500 young people left the factory, and this was to no small extent because of the poor chance of obtaining an apartment.

Connected with the housing issue (i.e. with the “settled” residents of Tol’iatti) was the issue of subsidized construction. By the end of 1980 the number of subsidies that had been allocated stood at 31,846. As with the allocation of apartments, subsidies were mainly given out based on length of employment at VAZ. But the number of applicants was much greater. There was also the added issue of their development, in the sense of road access, water supply, building materials, plants and seeds, and all of this needed to be arranged in good time.

At the beginning, the workforce at VAZ seemed better in terms of its make-up than at other factories and was, on average, far younger. Graduates from secondary schools (classes 10–11) accounted for 35 per cent of the workforce, and those who had not completed secondary education (classes 7–8) accounted for 43 per cent. Regardless of their relative youth, most of the workers had been employed for a considerable length of time, with 79 per cent having worked at the factory for six years or more, and 59.5 per cent having served at least 10 years. There was, however, a noticeable lack of the qualified specialists needed for VAZ’s new kind of production. The training of personnel abroad faced restrictions on travel, and bureaucratic red tape getting in the way of documents being issued.

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Archive of the VAZ factory management. fond R-352. op. 5. d. 993. l. 121.

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Volzhskii avtostroitel’ (The Volga Motor Builder, henceforth VA) February 12 1991.

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P. A. Nakhmanovich: AVTOVAZ kak ob’ekt istoricheskogo interesa i znaniia, in: Istoriiia OAO AVTOVAZ: uroki problemy sovremennost’, Tol’iatti 2005, 292.

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TGA. fond R-352. op. 2. d. 865. ll. 12–17.

³⁴⁶
RGAE. fond 398. op. 1. d. 2809. ll.
189–198.

³⁴⁷
V. A. Gurov: Istoricheskie uroki
khoziaistvennoi deiatel'nosti
AvtoVAZa v 1970–1975, in:
Istoriia OAO AvtoVAZ, 143.

³⁴⁸
TGA. fond R-352. op. 2. d. 385.
l. 49.

Alongside assembling the workforce was the issue of how the workers would be paid. From the very beginning there was an orientation toward those forms of payment used in modern assembly-line manufacturing, i.e. a time-plus-bonus system for the fulfillment of set production tasks. At the time, most enterprises in the Soviet Union favored a piecework system with all its shortcomings, such as hasty and sporadic work, rushing to meet targets, and low-quality work. For the management, engineers, technicians and service personnel, bonuses were introduced for carrying out defined tasks on time, and for fulfilling the production plan. In order to encourage improvement in levels of qualification and professional ability, the director was allowed (in agreement with the union) to make additional payments. These were made not more than once a year, and at a level not exceeding 4 per cent. Also, the number of workers receiving these extra payments could not exceed 25 per cent. In addition to payments based on qualification and professional ability, there were other payments based on working conditions. In certain cases these additional payments were allowed to amount to as much as 50 per cent of earnings. If fixed tasks were less than 100 per cent fulfilled, but not less than 80 per cent, additional payments were made, though at a reduced rate. If less than 80 per cent of the planned work was completed, there were no additional payments.

The monthly salaries of management, engineers, technicians and service personnel were set at the following rates: General Director: 330 rubles, Technical Director: 300 rubles, Director of Production: from 300 to 330 roubles, Deputy Directors: 295 rubles, Heads of Administration: 200–240 rubles, Chief Engineers: 260–300 rubles, Heads of Production Departments: 200–240 rubles. Office staff was paid from 65 to 135 rubles. The size of bonuses for engineers and technicians and service personnel was based on production levels and fulfillment of the plan.³⁴⁶

Regardless of changing to a different system of payment, the VAZ workers' situation differed little from that at other enterprises because of the limitations on growth of basic wage rates and bonus funds. The growth of wages during the factory's start-up stage was significantly lower than the growth of labor productivity. According to the calculations of V. A. Gurov, wages increased by only 21 per cent, while productivity was growing by a factor of five.³⁴⁷ Workers were also paid less than workers at other motor works with a piecework system of payment.³⁴⁸ The workers' average rate of pay in the middle of the 1970s came to 165 rubles. With extra payments for quality of work this reached 172 roubles, which was almost the same as the average for the country as a whole. This was unsatisfactory from the workers' point of view. In 1972 welding workers stopped work for four hours and demanded a change in their basic rates. At the end of 1974 there were large-scale strikes in the cast iron smelting department brought

about by the payment of quality bonuses, which were made collectively and without taking into consideration individuals' contributions. Talks with the administration continued into the night.³⁴⁹ Other such conflicts at the factory, however, were easily dealt with by reaching some kind of compromise with management.³⁵⁰ There was a more serious event when the Central Committee of the Communist Party received a complaint signed by 107 VAZ workers concerning the management's irregular practices with regard to wage levels. Among the authors of the complaint were engineers, technicians and machine tool workers from Building 17 (service department).³⁵¹

The most noticeable tendency in the Soviet leadership's policy at the time was the leveling of wage rates by means of raising the pay of low-paid groups to an average level, limits on growth of upper wage limits, and limits on wage funds and material incentive funds. As a result of this policy, difficult work and work that required qualification lost its prestige. While the education system in the country was up to world standards of the time and tried to keep up with scientific and technical progress, a sharp clash between the new requirements and the outmoded approaches to manufacturing is evident. The enterprises' administrations were not so much concerned about raising the productivity of their workers, as about stimulating employment. The payment system at VAZ was not designed to overcome traditional attitudes to work. The pay raises and bonuses were not significant, and were subject to the same "leveling out" effect. In the first half of the 1980s this tendency became even stronger and VAZ slipped increasingly toward average figures.

The chief of machine-assembly manufacturing, A. I. Grechukhin, observed that when additional quality payments of 20 per cent were introduced, the workers became accustomed to it very quickly. Then, as a result of the age of the equipment and a decline in the supply of parts, quality began to fall, though not noticeably. "Why pay 20 per cent? That's where it all started!" wrote Grechukhin – "It's not us who's to blame." He points out that the administration took a Solomon-like decision. To avoid quarrels with the workers, they fixed the percentages not for the quality of the goods produced (parts etc.), but for the quality of work in general.³⁵²

It is worth mentioning that the VAZ payment system was incomprehensible to other factories, where a piecework system was overwhelmingly in place. The ZIL factory's head economist, P. M. Katsura, wrote that if a skilled worker or a workshop foreman at his factory was told that wage rates should not be based on the extent to which he exceeded production norms, but instead in accordance with qualifications and the cost of labor in a given department, he would answer: "Well, that's a sure

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A particular way of resolving conflicts at Soviet enterprises, where workers would discuss the matter with management.

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According to T. I. Adaevskaia, the then chairman of the union at the factory, V. M. Pravosud refers to this in his memoirs. See T. I. Adaevskaia: *Trudovye konflikty i korporativnye formy ikh razresheniia na Volzhskom avtomobil'nom zavode*, in: *Istoriia OAO AvtoVaz*, 179–180.

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TGA. fond R-352. op. 1. d. 370. ll. 82, 87.

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VAZ. *Stranitsy istorii*. Tom vtoroi, 37–38.

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Heads of enterprises in large industrial centers with a limited number of registered citizens were given a fixed quota of “limits” (permission for workers from outside the area to work there). These workers, more often than not, engaged in low-skill, heavy labor. They were dubbed “limitchiki.”

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ibid., 61–62.

way to end up with just a bunch of ‘limitchiki’ when we’ve lost our workforce.”³⁵³ When equipment was replaced at the Dmitrovsk auto works (which was part of the corporation), there had been a section with difficult working conditions with a wage rate of 500–600 rubles a month. The new technology created excellent conditions, but the wage rate (according to qualification) was set at 200 rubles. “Do you know what’s going on here?” asked Katsura. “They’re saying we don’t need your best people, leave us your worst.”³⁵⁴

Nobody had any interest in reducing the size of the workforce because of the peculiarities of the Soviet economy. The administration had set up a large labor pool in order to be able to solve manufacturing problems, to transfer workers from one section to another, to send people off to do agricultural work without leaving them short of labor, and so on. Against the background of this, the problem of the so-called “personnel hunger” took on an extremely peculiar nature – unqualified labor to spare, with a shortage of qualified workers. This was a phenomenon inherent in the Soviet system. To what extent was VAZ’s management aware of this problem?

On the one hand, they tried to provide their workers with professional growth. On the other, they fought against turnover, and for taking on new personnel. The methods of moral encouragement of individual workers did not work under these conditions. Meanwhile, judging from the mood among the VAZ workers which, by the way, was shared by all workers in the USSR, they felt that their labor was insufficiently rewarded. Under the influence of the psychology of “leveling out,” many stood up against “targeted” wage increases. The prevailing opinion, that everyone should have a higher wage, did not particularly deal with the niceties of valuing the labor contribution of each person.

The forms of socialist competition lent themselves to a piecework wage system and barely took into account the particulars of bonus payments. By itself, socialist competition as a method of moral encouragement continued to become degraded, above all because of the gradual extinction of ideology, which had turned into a collection of standard slogans and rituals, the endless organizing of meetings, and new labor initiatives. In the 1970s and ‘80s attempts to combine material and moral reward for labor with this idea of competition failed on account of the leveling out effect. Toward the end of the 1980s it became more common to hear voices saying that competition had to be eliminated. First, in 1988, the terms shock worker and collectives of communist labor were abolished as the main fiction of the period of developed socialism. At a union conference in 1989 a worker, V. A. Striukov, disregarding repeated attempts to interrupt him, said: “What’s going on? Hundreds of commissions at the department level,

at the level of workshops (...). Dozens of competing engineers sit there, and the workers say, 'Look at those spongers!' We all know it's a load of rubbish. For us workers it's been an embarrassment for some time now. I can say that in 20 years of work I could, at any time and without any difficulty, have taken first place (...). I know about all this phoniness (...). The bureaucrats benefit from the fact that someone's pushing all this paper around (...) and the managers and their hangers-on are getting fat on all this fakery."³⁵⁵

Sociological research was carried out to examine the viability of continuing with competition. Almost half of VAZ workers (46.5 per cent) expressed their view that it should be abolished in all its forms.³⁵⁶ This effectively meant the rejection of Soviet methods for the moral encouragement of labor activity. The labor system saw a gradual build-up of critical signs – the breakdown of discipline, indifferent (or worse) attitudes to work, an increase in drunkenness both at home and in the workplace and, as a result, the emergence of criminal activity. Because of the general collapse of any stimulation to work, it became clear that the system of punishing bad work, and the contravention of working regulations and theft, was not having the desired effect. Of course, campaigns to encourage discipline and to counter infringements of work rules were waged, but the effects of these were insignificant.

At the same time each enterprise, including VAZ, was required to report on the successes it had achieved. Behind the external appearance of satisfactory figures concerning reductions in the loss of working time and absenteeism (which were often covered up by the administration) were concealed some alarming truths. Naturally, workers were keen to reach agreements with the administration on work absences and, therefore, most absenteeism was recorded as being the result of "drunkenness." Evidence of this can be seen in figures concerning the number of those incarcerated in "sobering-up" cells due to drunkenness. The figures for just a few areas of production came to 1,880 in 1977 and 2,478 in 1978.³⁵⁷

Theft was a real problem for Soviet manufacturing. Common was petty theft, but anything that was "up for grabs" could be taken. This was a great problem for planned production (and far from all the pilferers were caught), forcing the extra production of parts. Sometimes fights would break out at the factory entrances, and the security guards who dealt with such events would be encouraged.³⁵⁸ Highly placed personnel were also engaged in stealing, and this led to their cars being searched at the security gates.³⁵⁹

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VAZ factory management
archive. fond R-352. op. 5. d. 1049.
ll. 57–58.

_ 356
VA. May 26 1990.

_ 357
TGA. fond R-352. op. 3. d. 311a.
ll. 179, 183.

_ 358
TGA. fond R-352. op. 1. d. 359. ll.
19, 29, 68.

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ibid. d. 553. l. 281.

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P. A. Nakhmanovich. Ukaz. soch. 295.

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VAZ factory management archive. fond R-352. op. 5. d. 979. l. 63.

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ibid. fond R-352. op. 5. d. 926. ll. 4–6.

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ibid. fond R-352. op. 5. d. 926. ll. 4–6.

Toward the end of the Soviet period, there were some substantial changes in the swollen workforce at VAZ, a result of the general changes in Soviet society, and of the particular character of VAZ as a more-or-less forward-looking enterprise. By now 67.4 per cent of the workers had completed their secondary education (classes 10–11), 14 per cent had special secondary education, and 1.3 per cent had completed higher education. The majority of personnel (51.3 per cent) started in manufacturing in the 1980s. The bulk of workers had average levels of training. But highly qualified personnel, as before, were few; the factory frequently experienced labor shortages, and found itself almost at a standstill.³⁶⁰ The growth in standards of training did not match the potential of the workforce. Obstacles to better training were insufficient incentives for improving such matters, and the “leveling out” mindset. Workers were jealous of the professional development of their workshop colleagues and the fact that others were getting ahead.

As for the engineers, technicians and production managers (in 1989 they accounted for 17.4 per cent of the workforce), almost half of them were heads of various subdivisions and departments.³⁶¹ A distinctive feature of this group was their level of higher (52.6 per cent) and special secondary education (36.7 per cent). “Sub-professionals” (i.e. those without special training) accounted for only 10.7 per cent. There were 3,648 foremen who were fundamental to the organization of production. About one fifth of foremen were below the age of 30.³⁶²

So where did the engineering and technical staff come from? A large contingent (37.8 per cent) was comprised of former workers who had obviously completed training at evening classes or taken correspondence courses. Seven percent were former temporary engineers and technicians who had taken up permanent positions, and 4.6 per cent had transferred from the corporation’s other enterprises. Apart from these, some had come from outside, i.e. from the labor market, and these made up 50.6 per cent of the overall number. 19.2 per cent of these were taken on as “young specialists,” 17.5 per cent were “Tol’iattites,” 4.5 per cent were from outside the city, and 3.4 per cent were former Soviet army officers or had transferred from positions of authority. 48 per cent of the overall number were supplied with apartments, 6.1 per cent were provided with “small family”-accommodation, 26.8 per cent were in hostels and in all, 1,226 persons (or 81 per cent) had applied for housing.³⁶³

Specialists coming to VAZ from places of higher education and large industrial centers had higher levels of training than other workers. They were the main focus of the factory’s personnel department. They were first in line to receive apartments. Those from the countryside attracted to the less-skilled work brought with them the peculiar ways of the degraded rural areas of Russia. As a result, it seemed that two subcultures

were being formed in the city. On the one hand, the constant demand and yearning for self-expression found its reflection in festivals, sporting achievements, in growing artistic creativity, poetry, and the singer-songwriters of the time. All these served to relieve the dreary day-to-day life at the factory, and the growing social tension. But there was also another side to life in Tol'iatti - drunkenness, brawling, knife-fights, primitive leisure activities and dismal workers' housing estates and hostels. In comparison with other enterprises, the turnover of personnel at VAZ was not especially high (rarely exceeding 9–10 per cent). Tol'iatti was basically a city built around a single large enterprise and there was not a lot of choice in the job market. But even this was an extremely sore point for VAZ. The amount of unqualified manual labor (up to 35 per cent in certain sections of the factory) remained very significant. This led to the recruitment of uneducated workers from the countryside.

The changes in VAZ's workforce were, for the most part, in line with the kind of upheavals characteristic of Soviet society as a whole. What was going on at the factory wasn't in the workers' favor. This did much to determine the mood of those employed at VAZ. VAZ's workforce was capable of comprehending modern developments. They expected the state to provide fundamental change in the various areas of social life, the economy and the political structure of society, as well as satisfying their growing requirements. However, starting at the end of the 1970s, the sense of dreariness, hopelessness and passivity grew even stronger among the factory's personnel and influenced their everyday behavior and their attitude to work, and also affected productivity. As P. M. Katsura wrote: "The leap forward for civilization has been put on hold."³⁶⁴ There was a noticeable, continuous decline in the standard of work. The introduction of new VAZ models was held up for between six and eight years. Although these new cars were some kind of an improvement on previous designs in terms of their technical characteristics, the number of manufacturing defects continued to increase. Given the severe lack of cars in the domestic market, this did not put too much pressure on production. But VAZ cars were becoming less competitive in markets abroad.

Discipline continued to decline. Indifferent or negative attitudes to responsibility at work became more prevalent, and drunkenness at home and in the workplace continued to increase. Drinking was mentioned often in the local press: "We're working worse and partying more." In order to maintain a bearable standard of living, all members of a family had to work. But not all families were able to burden themselves with childcare. The number of childless families was growing, divorce rates were increasing, and absent fathers and single mothers were becoming more common. Each year, alcoholism, drug use and prostitution increased, particularly among the youth. Drunkenness became a particular feature of everyday life, a kind of ritual, even at work.

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Avtomobil'naia promyshlennost'
na novom vitke modernizatsii
Rossii. Tol'iatti 2004, 39.

_ 365
 RGANI. fond 5. op. 68. d. 1034.
 l. 2 s ob.

_ 366
 ibid. ll. 4–6.

_ 367
 VA. 12 January 1989.

_ 368
 Vaz factory management archive.
 fond R-352. op. 5. d. 1050. ll.
 16–17.

_ 369
 VA. 1 February 1991;
 February 6 1991.

Problems with the supply of food and other products were becoming severe, even though the factory had special status. Letters were being sent from Tol'iatti to the Central Committee of the Communist Party: "When are you going to help the workers and citizens of Tol'iatti? Why, regardless of the economic significance of the factory, do we find ourselves in such a difficult situation? And the worst thing is that this situation is not improving, but getting worse (...)." ³⁶⁵

By way of an answer, it was pointed out that Tol'iatti was given priority for supplies. Nonetheless, taking into account the complaints, funds allocated to the city were increased a little, though not at all significantly. ³⁶⁶ But what could the country's leadership do when there were shortages everywhere? The "leveled-out" wage distribution system had featured a built-in conflict from its very inception. This conflict was getting increasingly serious with every passing year. The more goods "thrown at" the retail network, the more severe the shortages and the population's backlog of demand, which led to the growth of waiting lines and other anomalies. Of course, income levels played a noticeable role. But it was continually becoming more important to have the necessary connections and to observe the principle: "You scratch my back, I'll scratch yours." Given this, ordinary workers were clearly put in an unequal position with everything governed by one's proximity to the levers of power and the distribution system.

The gap between the amount of money in circulation and the supply of goods continued to grow very rapidly. Shortages were now seen in virtually every category of goods and services and were having a destructive effect on society. The factory's bosses continued to count on the dispersal of central funds for food and basic essentials, but the complaints did not end. ³⁶⁷ Speaking as a candidate for the post of General Director of AvtoVAZ at the end of 1988, V. V. Kadannikov pointed out that the sorest point regarding the workforce took the form of social problems. In response, he promised to improve the supply of goods, housing, detached houses and cars. He said that, in 1989, 5,700 cars would be sold to the factory's workers, as compared with the 1,100 in previous years. Everyone who had worked at the factory for between eight and ten years should receive a car. He promised to set aside 3,000 cars to barter for goods (1,250 for food, 1,250 for industrial goods and 500 for building materials). He was counting on a large percentage of income from the sale of new models abroad. ³⁶⁸ Regardless of all this, by the end of Soviet times the supply problems started to resemble a feverish and out-of-control situation that could only somehow be dealt with using ever-growing force. Rationing and tokens were introduced, along with emergency purchases of foodstuffs and basic goods. ³⁶⁹

The most contradictory picture in this period is probably shown by figures for labor discipline. The factory's administration was compelled to report on the results of its campaign to improve it, to curtail absenteeism and drunkenness, and to rarely resort to such forms of punishment as dismissal for infringement of work rules. The official statistics for absenteeism were, as before, to paint a rosy picture. As a rule, the conduct of campaigns to improve labor discipline was governed by the principle: "It used to be worse, but now, as the result of the measures we've introduced, it's better." However, the situation was different from the official reports.

By the end of the Soviet system it had become impossible to conceal how bad things were with regard to discipline. Raids on the factory made it clear that "nobody's really in charge and there are faulty parts and rubbish lying around everywhere." VAZ's annual report for the year 1989 stated that at the end of the year 3,934 cases of absenteeism had been recorded (as compared with the union's figure of 4,500), but only 543 persons had been dismissed. The rest had either been given a reprimand or had been compelled to stand before a "comrades court" – a collective discussion of an infringement that would often lead to a reprimand for the perpetrator. An article in the factory newspaper "The Volga Motor Builder" (Volzhskii avtostroitel) under the headline "How to Improve Discipline," stated that only 30 per cent of perpetrators appeared before "comrades" courts.³⁷⁰ Losses resulting from absenteeism grew by 15 per cent. In the city of Tol'iatti there were 1,493 recorded cases of the factory's workers disturbing the peace, and 1,693 ended up in sobering-up cells.³⁷¹

In the course of 1991 the increase in infringements of discipline began to look more like a collapse of the existing system of labor relations, regardless of the harsher punishments that were now in place. According to "The Volga Motor Builder" newspaper, the number of AvtoVAZ workers going absent without leave had risen by 35 per cent compared to 1990, and there was a loss in working hours of 24 per cent. A total of 850 workers had been dismissed for absenteeism, and 87 for turning up for work drunk. Another 984 had been transferred to low-paid work.³⁷²

The desire to obtain one's own car or to find oneself closer to the source of their production always played an important role in the formation of the VAZ workforce. People headed for Tol'iatti from all parts of the country with this in mind. These were mostly young people, characterized by flexibility and adaptability. Taking into account the nature of manufacturing in conditions of extreme shortage (of motor vehicles), a stricter system of security was introduced. Measures were also taken to guard the manufactured goods and parts. In the 1980s, however, one can trace a continuous complication of the situation. People began to talk about Tol'iatti turning more or

_ 370
VA. 26 January 1989.

_ 371
VA. 1 February 1990.

_ 372
VA. 25 February 1992.

_ 373

TGA. fond R-352. op. 3. d. 952.
ll. 96–98.

_ 374

ibid. d. 952. ll. 96–98.

_ 375

TGA. fond R-352. op. 4. d. 1161.
ll. 109–115.

_ 376

RGAE. fond 398. op. 1. d. 10564.
ll. 83, 93.

_ 377

ibid. d. 358. ll. 180–185.

_ 378

VA. 26 January 1989.

_ 379

VAZ factory management
archive. fond R-352. op. 5. d. 993.
ll. 29–30.

less into the criminal capital of Russia. As before in the regime of “protecting socialist property,” things at the factory got even worse. Ways were found to get into the factory where, like bees around honey, those who wished to make a living out of the shortage of cars and spare parts gathered together.

The Ministry of Internal Affairs registered sophisticated methods of plundering from VAZ, where parts would be hidden in containers, taken away in bags containing milk, in specially constructed hiding places in clothes, and inside books. Among those brought to account for such activities were members of the Communist Party, the Young Communist League, engineers, technicians and those who had been charged with the responsibility of guarding the goods in the first place.³⁷³ Outsiders began to penetrate the factory more and more. In 1985 1,133 of 1,466 arrested pilferers were workers at the factory and 333 were not.³⁷⁴ Returning goods as defective when they were in fact perfectly good was a method of aiding theft that was becoming increasingly common.³⁷⁵ Signs of organized crime began to appear, with pressure being exerted on the administration of the enterprise and the workshops. The extreme shortages of spare parts for cars also led to the spreading of claims of corruption and theft at enterprises that formed part of the AvtoVAZ corporation. One of the most corrupt was the technical servicing system. Audits revealed many cases of distortion of figures, false accounting, illegal payments and embezzlement.³⁷⁶

In the mid-1980s a security system was put in place at VAZ that, it seemed, “even a mouse couldn’t get through.”³⁷⁷ The administration had to report on its effectiveness, making mention of the reduction in theft, of checks being carried out, and of inventories of material and technical assets. This is particularly clear in an article headlined “Keeping out the Thieves,” published in “The Volga Motor Builder” in 1989. In this article it is mentioned that six to seven years ago there was theft all over the factory, and losses resulting from these activities came to five million rubles and more. Once decisive measures had been implemented in 1986, losses were reduced to 1.39 million rubles, and reduced again in 1987 by 300,000 rubles. In 1988 they stood at around 1 million rubles. Regardless of the statistics, however, it was stated in the article that “the number of pilferers was not decreasing, regardless of the tightening up of the security-pass system and the introduction of CCTV and alarm systems.” Moreover, these were no longer small-time crooks. Organized crime had now appeared. A gang was arrested that had taken parts with a value of 18,000 rubles. In addition, another eight containers were found with parts concealed inside.³⁷⁸ In 1988, from manufacturing departments alone, losses from shortfalls and theft amounted to 3,036,000 rubles, and in 1989 it came to 3,551,000 rubles³⁷⁹, an increase of 515,000 rubles.

Theft and corruption were spreading like cancer, taking over the various manufacturing and non-manufacturing departments at AvtoVAZ. Alarm systems, electronic accounting systems and CCTV systems were forever failing.³⁸⁰ “The Volga Motor Builder” said that the impression was forming that someone was deliberately making them fail. As a result, observed the newspaper: “The lovers of easy pickings are walking into the workshops as if they were going into the forest to collect mushrooms.” There was also a mention of manufactured goods being deliberately damaged in order to make it easier for them to be stolen.³⁸¹ Tol’iatti’s Public Prosecutor often mentioned the dangerous development of the situation in the city. He criticized the inertia of the plant and the fact that the thieves and embezzlers went unpunished; no worker had been dismissed. According to reports from 1989, fines, shortages, rejects, ruined goods and theft officially cost 13.3 million rubles, while the unofficial figure added another 20 million.³⁸²

The dreadful crime situation in Tol’iatti, and particularly in the Avtozavodsk region, was marked by the appearance of criminal gangs and the heads of criminal groups. All over the town apartments were being fitted with security equipment. The leading article in “The Volga Motor Builder” on 31 March 1990 under the headline “Where are we heading?” told about a steep increase in crime over the previous four years and that 40 per cent of crimes were being committed by workers from the factory. One should not forget that the growing tension at VAZ coincided with a worsening of the situation not only at the factory and in Tol’iatti, but in the country as a whole. The press began to write openly. Prosperity of the people at VAZ was determined by getting ticks in reports; the optimism and triumphalism should be forgotten and attention should be paid to real problems that were previously unmentionable.³⁸³ Under the influence of “the progress of trouble” problems didn’t only affect the factory and the local area, but also the underlying principles of the Soviet system –the leadership of the Communist Party, the role of party organizations in the activities of the factory, and so on.

If quitting the Communist Party had previously been an enormous step, things had now changed. In 1989 VAZ workers started leaving the party in large numbers –in one year 627 left, of whom 500 made the decision on their personal initiative. As the VAZ party committee observed, workers with good working and personal reputations were leaving the ranks of the party. They described the process as “extremely persistent,” going on to say that it could be explained by the inability of the country’s leadership to make any big change to the situation.³⁸⁴ In 1990 this process of leaving the party began to acquire the quality of an avalanche. In January it was announced that 389 had left, while in February 709 quit. A significant number of these were workers.³⁸⁵ Hopes that the Communist Party would be able to lead a process of renewal in the country were gradually dying out.

_ 380
ibid. d. 1041. ll. 4–82.

_ 381
VA. 1 June 1989; 20 June 1989.

_ 382
VA. 26 April 1990.

_ 383
VA. 16 March 1989.

_ 384
VA. 20 February 1990.

_ 385
VA. 8 May 1990.

³⁸⁶
ibid., 34–35.

³⁸⁷
ibid. 44.

³⁸⁸
ibid. d. 1051. l. 52.

A contradictory picture was presented by the experiments made with regard to methods of payment conducted at VAZ in the second half of the 1980s. These measures were connected to the introduction of cost accounting. The results, it had been proposed, would be rolled out to other enterprises. From the beginning of 1987 there was a review of norms and tariffs. First, tariffs for manufacturing workers were to be reviewed. VAZ was given permission to raise the average salary by 7.3 per cent compared with the level for 1985. For certain other categories, wages would rise by 23 per cent, by 10 per cent for the rest, and by 15 per cent on average. Salaries for managers, engineers and technicians and service workers were raised by 24 per cent on average, i.e. more than for workers, which was in contravention of the regulations. This led to growing conflict within the workforce.³⁸⁶

The workers, of course, had their own understanding of the meaning and value of their labor, a sense of their own worth, which the German historian Alf Luedtke considered to be an intrinsic quality of all workers, and which he called “Eigensinn.” Speaking at a union conference in November 1989, a worker, O. M. Kolin, spoke of the attitude of engineers and technicians to workers: “What are you doing? You screw up screws. And then when you’ve put them on the conveyor, they all pile up and you have to spend the whole month shoveling up all the stuff that our specialists with their higher education did in a couple of hours. You can’t do without us, at the end of the day.” In reply to shouts from the hall that he was an idiot, he said: “Yes, I’m an idiot. But when this profession is dead and buried, we’ll all die out.” He proposed that only those who worked properly should remain on the production line, i.e. qualified workers, and that the Vietnamese (around 1,000 worked at VAZ) and those who were merely serving out their time should be dismissed. The same went for temporary workers and young workers who were avoiding military service. Of 2,765 workers in the section, he said, these accounted for 25 per cent.³⁸⁷

The conditions for the implementation of team cost-accounting recommended using interchangeability, transfers between work postings, assignment to work of varying qualifications, and giving the teams a general fund for distribution within the workforce according to a coefficient of contribution of labor.³⁸⁸ The change to team cost-accounting proposed that the teams, receiving the wage funds owed to them, would themselves decide how much labor would be involved in fulfilling a given task. Under the existing staff schedule (which no one had changed), it was impossible to do. Particular problems were raised by the team’s internal cost accounting, such as how to quantify the labor contribution of each individual, especially for those on the production line. Attempts to calculate the coefficient of contribution of labor either ended in failure, or led to serious conflicts among the workers. So, the attempt fundamentally came

down to raising the skill level, paying at a higher rate and an average salary level. The extra funds for increasing rates of pay were to be found from those earned at a standard rate and from VAZ's reserves. Although the number of workers on cost accounting rose sharply, to all intents and purposes the old "leveling out" was still in place.

In 1989 the average salary of all workers at VAZ was raised to 288 rubles, as compared with 237 rubles in 1985. For ordinary workers this meant a salary of 278.5 rubles and, for engineers, technicians and service personnel, 333 rubles. The average skill level of the workers was up to 3.71 (on a scale of 6). This increase, however, was clearly not what workers had wanted. Serious clashes began between the Work Collective Council and VAZ's Labor and Wages Organization Department. An article called "Ultimatum – a Sign of Disagreement" featured the following dialogue on this subject, which occurs in the workplace:

Workers: "They haven't raised our skill level for years."

Reply: "If you don't like it you can leave!"

Workers: "What are you talking about?"

The Labor and Wages Organization Department has us over a barrel!

We complain about them raising it to 5.19 instead of 4.37."

Labor and Wages Organization Department: "What do you mean? Let's have a look at your calculations. You're still doing the same work as before."

By way of an answer, there are threats to call a strike and demands to increase the wage fund.³⁸⁹ Under the influence of threats of work slowdowns and sit-in strikes, salary levels in 1989 came to 106.6 per cent in comparison with the 102.1 per cent that had been planned the previous year.³⁹⁰ More or less the same thing happened in other factories in the country. In September 1989 the country's leaders were forced to pass legislation on a progressive taxation fund for earnings, which was dubbed "the law on freezing wages." As if in defiance of this legislation, earnings began to rise even faster, and not without the influence of endless demonstrations and strikes. Most decisions were taken in the workers' favor. In 1990 the average salary of a VAZ worker was 308 rubles.³⁹¹ In April 1991 it grew (on account of various supplements) to 479 rubles (444 rubles after tax).³⁹² Even this didn't seem to be enough. After negotiations between the factory's management and the Soviet government, wage levels and salaries for VAZ workers were raised again by 35 per cent. At the same time, bonuses for management, specialists and service personnel were raised to 75 per cent of salary levels.³⁹³

_ 389
VA. 3 January 1989.

_ 390
VAZ factory management archive.
fond R-352. op. 5. d. 993. l.3.

_ 391
VA. 19 February 1991.

_ 392
VA. 20 October 1994.

_ 393
VA. 20 October 1994.

_ 394

VA. 16 March 1989.

_ 395

VAZ. Stranitsy istorii. Book 5.
Tol'jatti 2005, 190.

_ 396

VA. 27 November 1990;
29 November 1990; 6 December
1990; 18 December 1990;
15 January 1991.

Wages had gone up quickly, but this was of little use. People had more money in their pockets but there was nothing to buy. Against a background of declining manufacturing figures, this money in actual fact had not been earned. Payment according to skill level was not appropriate to the actual skill level of the work. Neither was there any sign that payment would be carried out any more differentially. An article in "The Volga Motor Builder" under the headline "A Passion for Sharing" published a letter signed by 19 individuals that asked the question "Where's the justice?" and went on to say: "We've thrown out the old ideals but we have no new ones. We divide up the money, but it's still not fair."³⁹⁴

Tension was growing on all fronts in the life of the factory – between the administration and the workers, between the workers and engineers and technicians, between VAZ workers and other residents of the city, and even between the workers themselves. Labor conflicts previously hidden from view, and usually resolved by contact with management, were now resulting in open confrontation in the form of strikes and the formation of alternatives to official organizations. From 1998 news of strikes at the factory were more frequent. As Secretary of the Party Committee Yu. B. Stepanov remembers, there had been a huge strike when V. V. Kadannikov had been in charge of AvtoVAZ. For several months, wages were withheld. It was uncertain what the future would bring and there was a catastrophic decline in discipline. Everything came out in the form of the most serious protest actions. "Kadannikov and I went to talk to the people," recalls Stepanov. "We persuaded them, as calmly as we could, that emotions would not solve any problems and in the end we got our way. But there was a lot to be done. We organized a Workers' Supplies Board, sold food parcels; we literally fed and clothed the workforce (...). We distributed everything, from underwear to cosmetics to furniture. The shops, after all, were completely empty, literally. In the forging shop at the factory, the workers staged a sit-in. They refused to work because they hadn't been given any vodka on some public holiday of other. There was a vodka shortage, just as there was a shortage of everything else."³⁹⁵

The factory went from strike to strike, from meeting to meeting, and these could be called on the slightest pretext. For example, the unsuccessful organizing of a sale of women's boots led to a complete halt in production in the forging shop. The strikers presented a list of demands to V. V. Kadannikov, among other things to raise wage levels in motor manufacturing by 10 per cent and to pay a "thirteenth" month's wage in full. A conciliatory commission had to be set up under the chairmanship of A. V. Nikolaev, the Deputy General Director, which resolved the problem by getting the workers to capitulate.³⁹⁶

In November 1990 a meeting was called by the Chairman of the Manufacturing Workshops' Committee, at which protests were made against the Council of Ministers' ruling on the introduction of negotiated prices. There was a discussion about the "sluggishness" of the payment system at VAZ, (i.e. the slow rate at which wages were being increased). The resolution reached at the meeting included the resignation of the Soviet government, the introduction of an "advance" wage raise ahead of price increases, and for VAZ to become the property of the workforce. The meeting presented a whole list of demands to the administration and gave V. V. Kadannikov a warning of a possible vote of no confidence if the last decision of the Work Collective Council went unfulfilled.³⁹⁷

There were further political demands. In the summer of 1990 the "Union of VAZ Workers" held a meeting in honor of workers shot in Novocherkassk in 1962. The meeting's resolution contained a declaration of trust in Boris Yeltsin, elected as Chairman of the Supreme Council of the Russian Federation.³⁹⁸ Another meeting followed, in support of the striking miners in Russia and their political demands. The moderator at the meeting was an engineer, A. S. Ivanov. Calls were made for strikes at VAZ and for driving party organizations from the factory.³⁹⁹ At the end of 1990, an independent trade union called "Unity" was organized under the auspices of the "Union of VAZ Workers". A. S. Ivanov was elected to be its Chairman.⁴⁰⁰

Describing what was going on at the time, worker E. V. Kireichuk spoke at a union conference in 1989 on the "games of democracy (...) that actually achieve nothing." He also pointed out the increase in crime, previously unheard of. He talked about how a militia had been formed at the factory, but speculated that this militia may be a cover for wrongdoing. In spite of the huge efforts of the administration and the trade union committee to improve the situation, he accused them of provoking strikes and the creating workers' committees of being inactive.

Speaking at the same conference, a worker named S. N. Kleimenov said: "One version of 'perestroika' is to knock off the heads of the managers (...). We think it's fun. We're having a party. But it's no time for partying yet." As far as faith in the Communist Party was concerned, he suggested that non-party members should decide, and that he was for a multi-party system.⁴⁰¹ The question of the effectiveness of the Labor Collective Councils founded as part of the Gorbachev reforms raised more and more questions. Why were they needed? The administration was calling for rejection of attempts by the Labor Collective Council to stand above the decisions on all questions, feeling that they were actually doing the same job as the enterprise's management organizations, trying to dictate policy to management and unions, and that they might play their

_ 397
VA. 17 November 1990.

_ 398
VA. 7 June 1990.

_ 399
VA. 12 June 1990.

_ 400
VA. 13 November 1990.

_ 401
VAZ factory management
archive. fond R-352. op. 5. d. 1049.
ll. 127-128.

_402
VA. 7 January 1989.

role in the sphere of distribution. As a result, energy was being wasted and working relations constantly had to be clarified.

In January 1989, a collective letter entitled “Please Stop!” was published in “The Volga Motor Builder,” carrying the signatures of 127 people. It included, “Twenty years ago people believed in what was going on, in themselves and in their strength. There was mass enthusiasm; things were going faster than ever. The best institutions in the country planned the factory and the city. Granite was even used in the construction of bus stops. White marble was used in constructing buildings. We borrowed from western experience and bought equipment from the most forward-looking firms. No one had facilities like those at the factory. There was a greening of the city. White spruce trees were planted, and flowerbeds were laid out. Twenty years have passed. It seems like we should have done a lot more. Then there were the years of stagnation. The granite crumbled from the buildings. The city lost its traditions. Perestroika happened and our spirits rose. It was as if we had become the bosses of manufacturing. But there is no joy from any of this. We are troubled by the thought that, for some reason, despite all this, we work badly and we run the business badly. Why are the floors in our factory covered in dirt? Why do we allow bad conditions at work? Why are there noxious fumes everywhere? And the main production line? It’s a nightmare! It was once the pride of our motor industry, but now it’s even difficult to explain to ourselves what it became, never mind trying to explain it to visitors. Shabby tables; barracks with peeling walls. Signs of squatting and vandalism everywhere. The quality of building work has declined in the last few years.” There was a call to do something about the squalor, about apathy toward work, and about loutish behavior.⁴⁰²

People began to give voice to the idea that, “limitless independent action will lead to and is already leading to the paralysis of manufacturing.” But, as the facts bear witness, it was still a long way from that, even though the indicators of economic decline were clear. This made for the ambiguity of the factory management’s attitude to the events of August 1991. Most managers and members of the Labor Collective Council stood up against the State Committee for the State of Emergency (GKPCh), but there were also those who supported it or preferred to wait and see what happened. Management often announced that it was hurt by criticisms. The factory workforce should do as much as it could in the conditions that prevailed and the VAZ workforce was living better than others in difficult times. At the factory there were, undoubtedly, opportunities that allowed some to defuse the increasing contradictions. But they could not change the situation in any major way. The inertia of the stagnant system shrouded everything that happened at the factory and in the city, and seemed like evidence of the veracity of the saying: “Don’t get too big for your boots.” By the end of the Soviet

period, manufacturing, social issues and others had become a Gordian knot of insoluble problems, which were typical not only of VAZ, but of the whole country. The new leadership of Russia with Boris Yeltsin at its head decided to switch to radical measures – liquidation of the whole system of values that was the essence of Soviet socialism, and shock therapy in the switch to capitalism and the changing of the structure of society. <<

12

Steve Meyer

**The End of the Line: American Corporate Cultures and
the Growth and Decline of the Automobile Industry, 1945-1990**

The industrial technology of the American automobile industry had its origins in the American System of Manufactures that evolved through the second half of the 19th century. In many ways, this new mass production technology represented a culmination of this unfolding technical system that persisted through the 20th century. As Ely Chinoy noted, the Ford assembly line “has been a dominating symbol of modern industrialism.” Relatedly as business historian Peter Drucker proclaimed: “The automobile industry stands for modern industry all over the globe. It is to the twentieth century what the Lancashire cotton mills were to the nineteenth century: the industry of industries.”⁴⁰³

In 1941, another automobile industry analyst, Edward D. Kennedy, labeled this crucial industry “capitalism’s favorite child.”⁴⁰⁴ After the development of mass production techniques, this capital and labor intensive industry generated enormous profits for its manufacturers and investors. After considerable investments in specialized machinery for standardized parts and line production methods, American automobile manufacturers relied upon relatively inexpensive unskilled labor to manufacture what Henry Ford labeled the “motor car for the great multitude.” Given the high and inflexible capital costs, much of the enormous profits came from squeezing the greatest effort from those who labored at the auto factory’s machines and assembly lines. Though these mainly male workers received relatively high hourly wages, at least compared with other unskilled mass production workers, frequent seasonal lay-offs lowered their annual income. And while automobile production experienced extensive technical refinements and innovations through the 20th century, the nature of automobile work remained remarkably consistent and extracted a considerable human toll from those who labored at the often dangerous, monotonous, degraded, and inhumane production and assembly lines. Since unskilled labor was relatively inexpensive and readily replaceable, managers and supervisors cared little about the human cost of mass production.⁴⁰⁵

Any investigation of American corporate cultures in the automobile industry requires an examination first of the respective cultures of management and labor and then of the several long-term themes reaching back to the origins. In the United States, corporate cultures can be interpreted as the continuous interaction between management and worker cultures on the shop floor, in the factory, and in the industry. This requires an investigation of US labor-management relations as they evolved through the twentieth century. The long-term themes included the continuous search for profits through the technological innovation and the exploitation of unskilled workers, the role of the US government in defining labor-management relations, the continuously changing social character of the auto workforce, and the mechanisms of worker resistance to their monotonous and degraded work.

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Ely Chinoy: *Manning the Machines – The Assembly-Line Worker*, in: Peter Berger: *The Human Shape of Work*, New York 1964, 51; Peter F. Drucker: *The Concept of the Corporation*, New York 1983, 149. On the history of the automobile industry and its workers see: David Hounshell: *From the American System to Mass Production 1800-1932*, Baltimore 1984, 217-330; Steve Meyer: *The Five Dollar Day*, Albany 1981; Joyce Shaw Peterson: *American Automobile Workers, 1900-1933*, Albany 1987; Steve Babson: *Building the Union: Skilled Workers and Anglo Gaelic Immigrants in the Rise of the UAW*, New Brunswick 1991; Nelson Lichtenstein: *The Most Dangerous Man in Detroit: Walter Reuther and the Fate of American Labor*, New York 1995.

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Edward D. Kennedy: *The Automobile Industry: The Coming of Age of Capitalism’s Favorite Child*, New York 1941, 314.

– 405

Steve Meyer: *The Persistence of Fordism*, in: *On the Line: Essays in the History of Auto Work*. Ed. by Nelson Lichtenstein/Steve Meyer, Urbana 1989, 73-99.

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Meyer, *Five Dollar Day*; Meyer, *Persistence of Fordism*; Joyce Shaw Peterson: *Automobile Workers 30-70*. "An Economic Frankenstein": UAW Workers' Response to Automation in the Ford Brook Park Plant in the 1950s, in: *Michigan Historical Review* (28) 2002, 63-89.

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Lichtenstein, *Most Dangerous Man* 104-31, 261-66; Robert Zieger: *The CIO, 1935-1955*, Chapel Hill 1995, 66-89, 246-48; Steve Babson: *The Unfinished Struggle* 95-103, 128-30, 155-58.

First and foremost is the insatiable search for greater profits of the Fordist capital and labor intensive industrial regime. In the United States, the original Fordist paradigm with occasional modifications was a central feature of "capitalism's favorite child." Although a technically sophisticated production system, it heavily relied on unskilled human labor as the most flexible element in the production process. Despite experiments with mechanization in the 1920s, with automation in the 1940s and 1950s, and with robotics and numeric control in the 1970s, the Fordist system proved remarkably resilient and persistent. Unskilled and easily replaceable workers were essential to achieve the large profits from its highly sophisticated technology. But – the repetitive, monotonous, degraded, and inhumane work conditions eventually resulted in profound worker discontent. A vigorous unionism emerged to raise the cost of this unskilled labor and to continuously plague the automobile manufacturers' endless search for large profits.⁴⁰⁶

A second large theme is the important role of the United States federal government's role in the shaping and reshaping of labor-management relations. In the early years, a vigorous and violent American anti-union tradition inhibited all efforts to create strong and vigorous unions. Only after Franklin Roosevelt's New Deal in the mid-1930s with the passage of the National Industrial Recovery Act and more important with the enactment of the Wagner Act did the US national government recognize the right of America's workers to organize and to bargain collectively. Shortly after the formation of the United Automobile Workers' (UAW) union in 1935, auto workers used conventional and sit-down strikes to aggressively establish unions and to begin to set the terms and conditions for post-World War II labor-management relations. To be sure, the Taft-Hartley Act in 1947 placed some postwar limitations on labor's power, but the decades of the 1950s and 1960s were the heyday of American unionism. After the two 1970s oil crises weakened the auto industry and subsequently the strength of its unions, President Ronald Reagan's replacement of strikers in Professional Air Traffic Controllers' (PATCO) strike in 1981 reversed federal endorsement of unions and further undermined labor-management relations. Federal labor policy molded and remolded the industrial environment in which labor and management operated.⁴⁰⁷

A third important theme is the continuously changing ethnic, racial, and gender composition of the American automobile workforce. Under the Fordist paradigm of production, the American automobile industry always required a relatively large number of skilled workers, typically American-born and Anglo and Northern European-American workers in the early years. But the unskilled character of the work also attracted and required huge numbers of Southern and Eastern European migrants, farm boys from the rural countryside, Mexican migrants from southern borderlands,

the numerous poor African American and poor white migrants from the South, women in times of labor shortage, and many others. Through the 20th century, the most devalued and degraded ethnic groups got the worst of the shop-floor job hierarchy and the reliance on unskilled workers often unfamiliar with industrial discipline created serious problems with the work ethic of this socially and culturally diverse unskilled workforce.⁴⁰⁸

Finally, the informal and formal mechanisms of worker resistance to their undesirable work conditions continuously shaped and reshaped labor-management relations. These constituted a workers' shop-floor culture of resistance to management's presumed prerogatives to control the factory floor. They included individual soldiering, collective output restriction and work slowdowns, sometimes aggressive and sometimes wildcat and conventional strikes, union organization campaigns, and formal systems of collective bargaining. Through the 20th century, all of these shop-floor strategies continued, changed, and persisted, constantly challenging the management culture of ever-increasing productivity.⁴⁰⁹

The Fordist work regime was all important. From its origins, America's 20th century "industry of industries" dramatically transformed the nature, the character, and the shape of work for the modern world. When it first emerged at the beginning of the new century, the manufacture of automobiles rested on a craft system of production utilizing the discrete and complicated skills of craft workers from Detroit's foundries, machine shops, and carriage making shops. The main features of Fordism included a standardized product, work simplification, specialized machinery, and progressive or line production. To be sure, through the twentieth century, new methods, new materials, and new technologies sometimes refashioned and sometimes eliminated some of the onerous and arduous work tasks. Despite numerous technological advances, the original Fordist premises have generally persisted until today.⁴¹⁰

For automobile workers, one relatively constant feature of their daily factory lives was their often simplified work tasks. Although the work tasks, work situations, and work routines varied considerably from automobile firm to automobile firm and from one shop or department to another, the work of assembly line workers was the simplest, most boring, and most degrading. As Chinoy observed in the 1960s, while no more than 18 per cent of auto workers were classified as assemblers, many auto factory jobs, such as "paint sprayers, polishers, welders, upholsterers," and others, "have been subject to the same kinds of job experience as those engaged in assembly." And, many, many others worked at machines whose rhythms and cycles shaped and determined their work tasks and work pace.⁴¹¹

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Meyer, *Five Dollar Day* 74-82; Peterson, *Automobile Workers* 9-29; Babson, *Building the Union* 63-94; Zaragosa Vargas: *Proletarians of the North*, 1917-1933, Berkeley 1993; Ruth Milkman: *Gender at Work: The Dynamics of Job Segregation by Sex during World War II*, Urbana 1987; August Meier/Elliott Rudwick: *Black Detroit and the Rise of the UAW*, New York 1979; Heather Thompson: *Whose Detroit?: Politics, Labor, and Race in a Modern American City*, Ithaca 2001; James N. Gregory: *The Southern Diaspora: How the Great Migrations of Black and White Southerners Transformed America*, Chapel Hill 2005.

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Meyer, *Five Dollar Day* 82-100; Steve Meyer: *Work, Play, and Power: Masculine Culture on the Automotive Shop Floor, 1930-1960*, in: *Men and Masculinities* (2) 1999, 115-134; Rugged Manhood: *The Aggressive and Confrontational Culture of US Auto Workers, 1930-1950*, in: *Journal of Social History* (36) 2002, 125-47; James R. Zetka: *Militancy, Market Dynamics, and Workplace Authority*, Albany 1995, 49-72, 147-81; Ben Hamper: *Rivthead: Tales from the Assembly Line*, New York 1991.

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Meyer, *Five Dollar Day*; Meyer, *Persistence of Fordism*.

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Chinoy, *Manning the Machines* 51; Meyer, *Five Dollar Day* 37-65.

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Meyer, *Five Dollar Day*; Meyer, *Persistence of Fordism*; Stephen H. Norwood: *Ford's Brass Knuckles*; Harry Bennett, *the Cult of Masculinity, and Anti-Labor Terror/They Shall Not Pass: Paramilitary Combat against Strikebreaking in the Auto Industry*, in: *Strikebreaking & Intimidation: Mercenaries and Masculinity in Twentieth-century America*, Chapel Hill 2002, 172-92, 194-226; Sidney Fine: *Sit-down: The General Motors Strike of 1936-1937*, Ann Arbor 1969, 54-99.

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Fine, *Sit-down*; Zieger, *The CIO 66-89*; Lichtenstein, *Dangerous Man 74-131*.

From the late 1910s and 1930s, Fordism established the pattern for American automobile production. To be sure, Alfred P. Sloan's innovations in style and product choice altered some features of the Fordist production system. But the core features of the Fordist production paradigm persisted. In the pre-union era, the corporate culture of American automobile firms was autocratic, repressive, and often violent. The managerial control of the workforce became the predominant management strategy and it became more brutal. Increasingly, in the absence of effective unions, factory spies reported on workers who malingered or who even discussed unions.

The speed-up became a common feature of automobile work as the pace of production and assembly lines accelerated dramatically. The stretch-out, or the assignment of more machines to a single worker, also increased the pace of work and production. Individual piece rates followed by subsequent reductions in piece rates drove auto workers to intolerably burdensome work paces. Group piecework systems forced members of work groups to harass slower workers to greater and greater work effort. The pace and speed of the work favored the younger worker and the typical auto worker was too old to perform adequately at the age of forty. When lay-offs occurred, the older workers were the ones who were not rehired. The managers and supervisor of this deskilled, repetitive, monotonous, and inhumane work regime became indifferent to the health and safety of workers in the continuous drive for higher and higher levels of efficiency and productivity. The economic collapse of 1929 exacerbated these conditions as underemployed workers accepted and endured the most brutal and most inhumane working conditions.⁴¹² In this hostile industrial environment, only a few dared to openly resist their degraded work situations. Some covertly attempted to malingere or to restrict output. Or some quit, suffering unemployment until they found more satisfactory work. Others covertly attempted to organize, but often were discovered and dismissed. Still others engaged unsuccessfully in spontaneous work stoppages, walkouts, or strikes. In 1934, as the national economy began to recover, a surge of rising expectations prodded automobile and other workers to aggressive action in growing unionization campaigns and several extremely violent strikes. In response, the Roosevelt administration established the Automobile Labor Board which conducted hearings in automobile production centers around the nation and which exposed the horrendous working conditions. The American Federation of Labor, the organization of skilled craftsmen, soon followed and endorsed efforts to organize new industrial unions. Subsequently, the dissatisfied industrial unionists broke from the craft federation and formed the Congress of Industrial Organizations. The United Automobile Workers Union (UAW) was a major component of this new industrial union movement.⁴¹³

The industrial union movement of the CIO constituted a major social and economic revolution in American industrial relations. And, the new UAW was at the forefront of movement for drastic social and economic change. In late 1936, the fledgling UAW took on the nation's largest corporation - General Motors. After an aggressive and sometimes violent 44-day sit-down strike which began in Flint, Michigan, and rapidly spread to other General Motors plants around the nation, General Motors finally acceded to recognize the UAW. As sit-down fever spread through other automobile and automobile parts firms, others soon followed and recognized the young automobile union. Eventually, after another shorter, but larger, sit-down strike, Dodge too recognized the UAW. In these organizational campaigns, a militant minority of leftist leaders often played key roles in the organization of American automobile manufacturers. Only Ford remained the major holdout for UAW recognition until the UAW won a violent and racially-charged strike at the huge River Rouge plant in 1941.⁴¹⁴

From the mid-1930s through the World War II years, the American system of automotive labor-management relations slowly evolved into a system of industrial jurisprudence or a workplace rule of law. For the first time, automobile workers achieved a voice through the UAW in setting the terms and conditions of their employment. The road to amicable labor-management relations was a bumpy one - sometimes involving violent confrontation between workers and shop supervisors, sometimes slowdowns and wildcat strikes, and sometimes larger industry-wide walkouts. But gradually, the UAW negotiated contracts that transformed the corporate cultures of automobile firms and established the basic rules for industrial jurisprudence. Typically, the UAW developed shop steward and shop committee systems to ensure that the new rules applied on the shop floor. It established grievance procedures to assure the equitable application of these rules. It often created a system of impartial arbitrators, selected by labor and management to adjudicate differences of interpretation of the negotiated contract. Although the union contracts often contained management rights clauses which ensured management's right to hire, fire, and discipline workers, such activities were monitored through the system of industrial jurisprudence. The development of seniority systems allowed older workers to age into softer and easier jobs in an industrial regime that favored the speed and endurance of the younger worker.⁴¹⁵

The World War II years were central to the consolidation of the new UAW industrial unionism in the United States. In exchange for a no-strike pledge for the duration of the war, the US government encouraged management acceptance of the dues check-off and maintenance of union membership. The dues check-off meant that union dues would be automatically deducted from the workers pay check and trans-

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Fine, Sit-down; Lichtenstein, *Dangerous Man* 74-131; Meier/Rudwick, *Black Detroit* 96-106.

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David Brody: *Workplace Contractualism: A Historical Comparative Analysis*, in: *In Labor's Cause: Main Themes on the History of the American Worker*, New York 1993, 221-250; Steve Meyer: *Stalin Over Wisconsin: The Making and Unmaking of Militant Unionism, 1900-1950*, New Brunswick 1992, 105-46.

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Nelson Lichtenstein: *Labor's War at Home: The CIO in World War II*, New York 1982; Brody, *Workplace Contractualism*; Meyer, *Stalin Over Wisconsin* 134-45.

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Lichtenstein, *Labor's War at Home* 125-26; Martin Glaberman: *Wartime Strikes*, Detroit 1980; Nancy Gabin: *Feminism in the Labor Movement: Women and the United Auto Workers, 1935-1975*, Ithaca 1990, 47-100; Steve Meyer: *Workplace Predators: Sex and Sexuality on the Automotive Shop Floor, 1930-1960*, in: *Labor* (1) 2004, 77-93.

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Ruth Milkman: *Rosie the Riveter Revisited*, in: Lichtenstein/Meyer, *On the Line*, 129-52.

mitted to the union. Maintenance of membership meant that once a worker joined the union his name would automatically be maintained on the union roster. These both strengthened the financial and membership base of the union, but they also increasingly bureaucratized the union staff and loosened the bond between the union and its members. In the recent past, the shop stewards and shop committee men represented an important bond between the union and its members.⁴¹⁶

World War II also brought problems for both the company and the union. A system of “cost-plus” contracts guaranteed profits for wartime automobile manufacturers. In an effort to hoard skilled labor for the post-war years, the automobile firms added extra skilled workers to its feather-bedded payrolls. The wartime labor shortages also resulted in a dramatic social transformation of the automotive labor force. More and more women, and more and more African-Americans entered American automobile factories and plants. The densely male culture of automobile workers created tensions between men and women on the shop floor and often resulted in the personal and even sexual harassment of women workers. The overwhelmingly white workforce with many from Southern rural towns proved inhospitable to black workers often resulting in hate strikes of white workers against the upgrading of black workers to more skilled jobs and counter strikes of black workers for workplace equity.⁴¹⁷

The post-World War II years were a period of the testing and the consolidation of the new system of labor-management relations. The reconversion to domestic production resulted in a purge of women from the shop floor. Auto work remained a bastion of male shop culture. If women were pushed from automobile factories, white workers tolerated the black workers, though only in the dirtiest and most demeaning positions in the foundries and paint shops.⁴¹⁸

Immediately after WW II ended American workers sought to retrieve wages lost in wartime inflation and initiated the largest strike wave in American history. In a conservative reaction to the widespread postwar strikes, the Republican Congress passed the Taft Hartley Act to contain the aggressive union movement in 1947. Its many provisions attempted to roll back and contain the New Deal's favorable attitudes toward unionism. Many UAW leaders and many UAW local unions labeled this vindictive legislation a slave labor law. In an effort to contain the leftist radicalism of the depression era and against the backdrop of an emerging Cold War, one notorious provision called for union officers to sign affidavits stating that they were not members of the Communist Party. This anti-communist crusade encouraged right-wing shop-floor activism through the 1950s and removed leftist militancy from the automotive workplace. Another provision allowed states to pass “Right-to-Work” laws that outlawed

union shops which required all workers to join a union. Creating anti-union islands in the states of the South and Southwest exacerbated the decline of American unions in later years. From the 1980s on, when American, European, or Japanese manufacturers decided to construct new plants, they chose these rural anti-union havens that were often inhospitable to organized labor.⁴¹⁹

For American automobile manufacturers and workers, the post-World War II strike wave severely tested the New Deal framework of labor-management relations. In the 1946 General Motors strike Walter Reuther, then head of the UAW General Motors Department, called for the corporation to open its books to prove that it could offer the wage increase without raising automobile prices. General Motors refused. But despite the hostile rhetoric of the bitter strike, the contentious strike marked the beginning of a “civilized relationship” between the company and the union since General Motors did not challenge the very existence of the union and avoided the previously traditional option of using strike breakers to weaken the union position in the strike. In 1949, the UAW challenged Ford in its “speed-up” strike which made production standards, that is, changes in the methods and techniques of production, an important issue in auto worker collective bargaining. In these immediate post-war years, the UAW and the automobile firms eventually developed a system of pattern bargaining wherein the union selected one of the Big Three corporations, either General Motors, Ford, or Chrysler, to conduct a round of bargaining, possibly threatening or even conducting a strike. Once the company and the union negotiated a settlement, then the other firms accepted the pattern of wages and benefits established in the initial negotiations. After a few fitful and rancorous years of contentious negotiations, this system evolved into an even more amicable set of labor-management relations. In 1950, the UAW and General Motors negotiated the famous “Treaty of Detroit” where the union accepted a five-year contract for an annual improvement factor, a percentage wage increase connected to improvements in production technology.⁴²⁰

The period from the second half of the 1940s through the 1960s was the heyday of the American automobile industry with, despite occasional economic downturns, the nearly continuous growth in automobile production. The UAW successfully gained a wide array of worker benefits. In 1973, auto workers achieved the \$5 hour through aggressive and forceful collective bargaining. Relatively unskilled automobile workers also received other forms of compensation - shift premium pay, Saturday and Sunday overtime pay, holiday pay, paid vacations, bereavement pay, relief-time pay, educational pay, moving allowances, health and life insurance benefits, supplemental employment benefits, retirement benefits, and separation pay. With the success of this service unionism, labor costs gradually became the major component in the cost of the product. Through the industry’s boom years, manufacturers produced the large accessory

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Lichtenstein, *Dangerous Man* 261-66; Zieger, *CIO* 246-48.

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Lichtenstein, *Most Dangerous Man* 220-47, 279-83; Robert Asher: *The 1949 Ford Speedup Strike and the Postwar Social Compact, 1946-1961*, in: *Autowork*. Ed. by Robert Asher/Ronald Edsforth, Albany 1995, 127-54.

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Meyer, Five Dollar Day
201; Meyer, Persistence of
Fordism *passim* and Economic
Frankenstein *passim*.

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Meyer, Persistence of Fordism
passim and Economic
Frankenstein *passim*.

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Meyer, Persistence of Fordism
passim and Economic
Frankenstein *passim*.

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ibid.

loaded car that moved to the era of the excessive tail fins where autos seemed almost ready to take-off into the sky. In the late 1940s, Henry Ford II proclaimed that “small cars make small profits.” Furthermore, the rising wage and benefit packages and the initially fragile and strife-torn labor-management relationship of the immediate post-war years prompted auto manufacturers to dream of the workerless or automated factory.⁴²¹

During World War II, some arms manufacturers experimented with the automated production of artillery shells. When the war ended, following the lead of Ford, the other two large firms, GM and Chrysler, along with the smaller ones, such as Studebaker, Kaiser-Frazer, Nash, and others, experimented with automation with varying degrees of success. The high capital costs of the new automated systems resulted in an economic shakedown which in time resulted in the decline and disappearance of many of the smaller firms.⁴²²

Even with the larger firms, automation was not a complete success. In the early to mid-1950s, after initial experimentation in body stamping plants in Buffalo, New York, Ford attempted to develop an automation technology to manufacture engines in foundries and engine plants in Brook Park, a suburb of Cleveland, Ohio. The automated production and assembly of engines in the Brook Park plants were initially successful but also problematic for Ford managers and workers. Since the birth of mass production the automobile industry relied on relatively unskilled workers. The new automated plants required a new type of worker who combined the skills of several trades—those of machinists, electrical workers, pipe-fitters, and others. At the same time, the automated systems tied these new skilled workers more closely to actual production. Consequently, in the early to mid-1950s, Brook Park workers protested and grieved over job content, production standards, and job classifications and engaged in a number of large wildcat strikes over issues related to automation.⁴²³

Praised by auto manufacturers and criticized by workers, automation dominated the American popular mind in the late 1950s and 1960s. The president of the Brook Park UAW local even wrote to UAW President Reuther and complained about the “economic Frankenstein” that his new local faced. Automated production, he feared, would disrupt conventional arrangements of production and displace large numbers of future workers. Such fears of job loss resulted a nation-wide automation hysteria in the popular press. In the end, they never materialized, since American automobile production relied on a tradition of model changes to continuously expand the potential market for cars. Automation technology was simply too rigid and too inflexible to accommodate these frequent changes. Costly human labor remained the most flexible element of production and consequently more conventional production methods persisted in American auto factories.⁴²⁴

As the United States moved into the turbulent 1960s, the social and cultural activism generated by opposition to the Vietnam War encouraged a rights revolution among African Americans, women, and others that helped to reshape the social arrangements of the automotive workplace. In the late 1960s and early 1970s, the radical and counter-cultural movements arrived on the auto shop floor. Inspired by the civil rights and black power movements, African-American workers acted on their new sense of social equity and justice and challenged the industrial traditions that allocated the meanest and dirtiest jobs to black workers. The appearance of the revolutionary union movements and other radical union groups in Detroit and other automobile plants pushed and prodded the UAW and automobile firms eventually to revise discriminatory practices in hiring and in job assignments in the late 1960s and early 1970s. Often using Marxist and racially charged rhetoric, the aggressive activities often pitted black workers, white supervisors, black and white workers against each other in sometimes violent confrontations on the shop floor. They also challenged the national and local UAW leaders resulting in violent plant gate and union hall confrontations between radical black militants and conservative white union supporters. The women's movement also prompted women workers to demand social and economic equity in the traditionally male dominated workplace. A vocal force within the UAW since the WW II years, women fought against workplace discrimination in job assignments, sex differentiated wage scales, separate seniority groups, maternity leaves, sexual harassment, and other women's concerns in a male dominated union and industry. Eventually, federal civil rights legislation reshaped the relationship of black and female workers to their union and to their firms.⁴²⁵

In the 1970s, American manufacturers faced another serious challenge from foreign producers of small, high quality automobiles. Especially after the two oil crises, the persistent reliance on Fordist principles of production and on the tradition of accessory-loaded, large cars made the smaller German and Japanese automobile more attractive to American consumers. The Fordist manufacturing techniques privileged fast over high quality production and thus fostered auto worker discontent which lowered product quality. Also the American automotive engineering tradition favored a minimum as opposed to a maximum of perfection in the tolerance of manufactured components. All of these created a poorly assembled American product and consumer disaffection with it.⁴²⁶

In an effort to meet the foreign competition from Volkswagen, Toyota, and others, General Motors decided to produce a smaller down-sized automobile, the Vega, at a new technically sophisticated plant in Lordstown, Ohio, in the late 1960s and early 1970s. Given the earlier experience with automation, the new Lordstown plant

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Thompson, Whose Detroit? Passim; Thomas Sugrue: *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*, Princeton 1996, 91-123; Gabin, *Feminism in the Labor Movement*, 188-228.

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Brad M. Barber/Masako N. Darrough: *Product Reliability and Firm Value: The Experience of American and Japanese Automakers, 1973-1992*, in: *The Journal of Political Economy* (104) 1996, 1084-1099.

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M. J. H. Mogridge: The Effect of the Oil Crisis on the Growth in the Ownership and Use of Cars, in: *Transportation* (7) 1978, 45-67.

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Ruth Milkman: Farewell to the Factory: Auto Workers in the Late Twentieth Century, Berkeley 1997, 79-136. Kathryn Dudley: The End of the Line: Lost Jobs, New Lives in Post Industrial America, Chicago 1994; Barry Bluestone/Bennett Harrison: The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industries, New York 1982; Jefferson R. Cowie: Capital Moves: RCA's Seventy-year Quest for Cheap Labor, Ithaca 1999.

rested on Fordist traditions of production in its reliance on flexible human labor and in the creation of the General Motors Assembly Division to design a brutal work regime on the Lordstown factory floor. If the standard assembly lines produced 50 or 60 cars an hour, the Lordstown ones exceeded over 100 and halved the time allowed for the completion of work tasks. At the time, the dissident social and cultural values of middle-class college students sifted down to American workers. Combined with a brutal work regime, the large number of workers who were imbued with counter-culture values proved an explosive mix on the shop floor. The indiscipline of the late 1960s and early 1970s, including a drug and alcohol laced shop culture, undermined the conventional work ethic and resulted in excessive absenteeism and frequent wildcat strikes. In the early 1970s, Lordstown came to symbolize the “blue collar blues” and the general disaffection of the American workforce with the continued monotonous, repetitious, and degraded automotive work regime.⁴²⁷

But other events of the 1970s had a more dramatic impact on the United States' position in the global auto industrial age—the two oil crises of the early and the late 1970s. A consequence of Middle Eastern geopolitics, these two events undermined the prevailing industry mantra that small cars produced small profits. The high cost of oil, the long lines at American gasoline stations, and the rationing programs of odd-even day for purchasing gasoline enhanced the American disaffection with large automobiles. Oil shortages required fuel efficient automobiles. As a result, European and Japanese imports took a larger and larger share of the American automobile market. In 1979, the crisis was so severe that one of the major automobile producers, Chrysler, faced bankruptcy and required a government assisted financial bailout.⁴²⁸

American auto manufacturers also increasingly recognized the economic problem of the high-wage and high-benefit packages of unionized automobile workers from the late 1970s and early 1980s. With the growing loss of segments of the American automobile market to foreign competitors, they initiated a process of down-sizing and plant relocation, often in regions with lower labor costs and less hospitable to unionized labor. American, and then Japanese and European, automobile firms built their new plants in the right-to-work states where unionization campaigns were difficult. Without an embedded automobile workers union in their plants, the foreign firms avoided more successfully the high cost of unionized workers in the American plants. American manufacturers outsourced some small parts production in manufacturing zones in Mexico along the American border—the so-called Maquiladora plants. Generally, global automobile production also gradually moved to industrializing former third world nations such as Korea and Brazil. Through the 1980s, America's “industry of industries” and its workers suffered through the dislocations of plant closings and relocation, deunionization, and deindustrialization.⁴²⁹

Under the Reagan administration, a major shift occurred in federal labor policy in the 1980s. Ever since the New Deal of the 1930s, though some laws attempted to limit and restrict the power of labor, American public policy never directly threatened the “civilized relationship” and the very existence of American unions. In his first year in office, the new president threw down the gauntlet to American unions in the air traffic controllers strike in 1981. In the midst of the PATCO strike, he fired the striking workers and hired permanent replacements into their unionized jobs. The firing of the strikers and the hiring of replacement decimated and demoralized the union members and sent a strong message to employers that the rules of the game had shifted dramatically. The president also appointed anti-labor and pro-management members to the National Labor Relations Board, the New Deal agency that adjudicated differences between unions and corporations. Over time, the post World War II “civilized relationship” gradually eroded. One UAW president noted that labor-management relations had devolved to the law of the jungle.⁴³⁰

Global competition, plant relocation, and anti-labor federal policies all contributed to the decline of the American automobile industry and its union. Through the 1980s and beyond, the American automobile industry downsized considerably as widespread plant closings created the mid-Western rust-belt cities. The weakened UAW engaged in concession bargaining where new contracts conceded the hardly won benefits of previous years. Since the UAW contract often contained strong seniority provisions, auto manufacturers dismissed and laid off the younger workers. In many plants, workers had to be 40 or 45 years old to maintain the jobs. Since the physical strains of auto work made it a young person’s work, the aging workforce produced inefficiencies in production. American manufacturers frequently offered buyout plans to reduce the aging workforce. Their foreign competitors built factories in the rural Southern states where anti-union right-to-work legislation prevailed. They practiced a variety of union avoidance strategies and did not have to provide the costly UAW benefit packages. Consequently, the American firms continued to lose their premier position in the American and global labor market.⁴³¹

Through the 20th century, the American auto industrial age successfully endured constant changes and solved continuous crises. Currently, however, it seems to have reached the end of the line. According to the Detroit Free Press, Ford and General Motors now face serious financial crises from a long-term industrial decline. Toyota is now expected to replace General Motors and to become the top global automobile producer. In the heyday of American’s auto-industrial age, the UAW achieved a membership peak of 1.5 million workers. After the current round of pension buyouts, analysts expect a decline to 500,000 workers. To be sure, it remains a large union, but it is

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Herbert R. Northrup: The Rise and Demise of PATCO, in: *Industrial and Labor Relations Review* (37) 1984, 167-184; Richard W. Hurd/Jill K. Kriesky: The Rise and Demise of PATCO’ Reconstructed, in: *Industrial and Labor Relations Review* (40) 1986, 115-122; Babson, *Unfinished Struggle* 155-59.

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Library of Congress, *Modern Global Automobile Industry*, in: *Business & Economics Research Advisor* (2) 2004; Brian Phillips: *Global Production and Domestic Decay: Plant Closings in the U.S.*, New York 1998; Laurie Graham: *On the Line at Subaru-Izuku: The Japanese Model and the American Worker*, Ithaca 1998; Terry Besser: *Team Toyota: Transplanting the Toyota Culture to the Camry Plant in Kentucky*, Albany 1996.

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Detroit Free Press,
December 7, 2006.

no longer the formidable power that it once was.⁴³² For innumerable unskilled automobile workers, the auto-industrial age proved a pathway to the American dream - a world of relatively high wages, health-care and pension benefits, and the possibilities of home ownership, an automobile, and college for their children. The unskilled Southern and Eastern European migrants, the farm boys from the rural Midwest, the poor black and poor white migrants from the American South, Mexican migrants from below the Southern borderlands, and many others made a Faustian bargain that traded off the economic security high wages for the industrial hell of degraded work. In recent years, this problematic opportunity has gradually faded from the American industrial landscape and along with it the social and economic promise of the American dream. <<

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Patrick Fridenson

**Corporate Culture in the French Automobile Industry:
the Changes from 1944 to 2004**

France is one of the two motherlands of the auto industry. Its major companies had developed a strong corporate culture already before World War II. Among the industry's long term determinants were the strength of the luxury car sector (with its consequences for taxation and for the price of gasoline); the significance of the army, the colonies, and short distance transportation in relation to truck production; the key role played by a specific group of engineers - the graduates of the Ecoles d' Arts et Métiers, and the place of family firms.⁴³³ The high level of tariff protection, instituted during World War I, was yet another factor.

The occupation of France by Nazi Germany between 1940 and 1944 and the tutelage of French firms or foreign multinationals' subsidiaries by German car makers acting as "Patentfirmen" already put this culture at risk.⁴³⁴ These events, accompanied by the forced exit of Jewish entrepreneurs and a major turnover of the labour force, led to the purge of 1 per cent of the staff who had collaborated with German occupants, and the nationalisation of one of France's Big Three, the Renault company, almost immediately after the war.⁴³⁵ What then would happen to the auto industry's corporate culture? Would it revert to path dependence due to the influence of the engineers and executives and the continuity of most firms or would it adapt to a new world?

In order to answer this central question we need to clarify our definition of corporate culture in two ways. One relates to the concept itself, on which there has been quite a lively discussion among French business historians, sociologists, and management scholars.⁴³⁶ For me, a company cannot be reduced either to its inclusion in one or several networks or to transaction costs. It has an irreducible core. Therefore, corporate culture encompasses more than trust, cooperation and reputation. It is also much more than the policy of the Chief Executive Officer (CEO) or of the board of directors towards wage-earners or middle managers, and transcends group guidelines which in French auto companies began to flow from the top brass in the early 1990s, following Japanese practice. Even if such policies obviously deserve consideration, even if, in parallel, we need to take into account the unsteady effectiveness over time of both internal communication departments and methods of industrial remuneration, a top down approach of corporate culture yields only limited results. The autonomous values of the various categories of personnel, which may cause conflict within an auto multinational between expatriates and locals, matter, as does their experience of the individual and collective possibilities of promotion or career, and the unstable balance between managers and owners.⁴³⁷ There are also other stakeholders: customers, dealers, suppliers (for France, think only of Michelin, Usinor, Saint-Gobain or Valeo), banks, trade unions, local and national government, engineering and business schools, insurance companies etc.

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General Motors and its times,
New York 1980.

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Michael Laux: *The European
automobile industry*, New York
1992; Jean-Louis Loubet:
*Histoire de l'automobile
française*, Paris 2001; Kurt
Möser: *Kulturgeschichte des
Autos*, Frankfurt am Main 2002;
L'automobile. Ed. by Audrey Puig,
Paris 2003.

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Richard F. Kuisel: *Capitalism
and the State in modern France*,
Cambridge 1981; Patrick
Fridenson/Isabelle Tournier:
La 4 CV au Salon de l'auto 1946,
Paris 1987; Jean-François Grevet:
*Au cœur de la révolution auto-
mobile: l'industrie du poids lourd
du plan Pons au regroupement
Berliet-SAVIEM*, Lille 2005;
Cyrille Sardais: *Leadership et
création d'institution. Les actions,
intentions et perceptions d'un
dirigeant: Pierre Lefauchaux*,
2005.

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Cyrille Sardais: *Lorsqu'un
dirigeant fait son mea culpa*.
La conférence «Directives
Générales» du 8 septembre 1952
à la Régie Renault, in: *Entreprises
et Histoire*, avril 2006, 105.

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Grevet, *Au cœur de la révolution
automobile*.

The evidence available suggests that culture is compatible with recurrent tensions and even conflicts. It has other dimensions too: the experience of territory, space and industrial architecture, and such intangible elements as history and memory, or patents. Also, in this industry corporate culture is related to the type of product that people make or sell: in America, this is the time of tail fins, and of the “chrome colossus” (meaning both the car and the companies), but in France it is definitely something else.⁴³⁸ Precisely this is the second and related issue about automobile corporate culture: the national dimension. What makes French cars, trucks, workers different from their British, Swedish, or Italian counterparts? Is this difference stable or changing?

Our argument is fourfold.⁴³⁹ The postwar period marks a definite break in French automobile corporate culture for internal as well as external reasons. But there was a reshaping, or even a turnaround, from the early 1980s onward. Some permanent features have been maintained however during the entire period from the Liberation to present times. Similarly, to a certain extent, some distinctions between the various companies' corporate cultures also have been maintained.

Several changes have reshaped the automobile firms' corporate culture in depth. They have been more intense in the two managerial firms, Renault and Simca, than in the two family firms, Peugeot and Citroën. The earliest one is the renunciation of luxury models. This decision emanated from two sides. Government already under German occupation contemplated it. Carmakers, anticipating shortages when peace returned, gradually moved in the same direction. But after the Liberation an authoritarian plan of the Ministry of Industry compelled auto manufacturers to get out of luxury production.⁴⁴⁰ Some carmakers supported this pivotal decision in order to reach real mass production and to satisfy other customers than the upper middle class. But many dealers were reluctant. Executives at Renault, for example, expressed their “disgust” in 1949 at this new population, and their preference for remaining connected to business people.⁴⁴¹ This was a turning point. Many experts argue that the French auto industry abandoned luxury customers to foreign competitors. It also deprived itself of a source of innovation and quality. Instead, it nurtured a culture of volume and a trend toward the reduction of the complexity of the range of models. This had many consequences: on the position of design engineers, on the types of workers, on the growing need to export in order to reap economies of scale. Renault attempted to convert similarly truck manufacturing to a limited number of models and to mass production. It failed, learning that truck ranges need fine tuning and that because this market was closer to luxury markets, reliance on volume would not succeed.⁴⁴²

The relationship of large French automobile companies to America altered in comparison with the 1920s and early 1930s. If Americanization continued during this period, thanks to the Marshall Plan and its after-effects (machinery, statistical quality control, training within industry, job evaluation, collective bargaining, marketing, public relations, new types of house organs etc.), it would be wrong to consider it, the way numerous earlier authors have, as the dominant trend. Rather, that trend consisted of a specific, national growth project and an anti-American reaction among parts of the engineers, both of which enhanced national creativity and the building of genuine innovation capabilities.⁴⁴³

Changes in personnel structure resulted from this conversion to volume at both ends of the workforce. The number (and proportion) of cadres, i.e. white collar people who have graduated from engineering or business schools or schools of government or – the minority – from universities, increased continuously. At the Renault company, they comprised 1,471 in 1955 and 4,715 in 1978.⁴⁴⁴ This is clearly an upgrading of the skills of the upper white collar workforce. Accordingly, the share of the engineers des Arts et Métiers, who were the core of the prewar managers and the bearers of the French auto corporate culture, declined. On the other side, the blue collar workers became more heterogeneous, as, similar to the 1920s, growth was achieved by hiring not only peasants but also more migrant workers from various ethnic groups, at a time when other European auto producers did not resort to immigrants.⁴⁴⁵

The lack of space to expand, the need to tap other sources of personnel, and, again, the hand of government (this time, its policy of regional development) all prompted auto companies to decentralize, i.e. to create plants in other locations and with modern architecture. The trend started in France with Renault. In Italy, Fiat refused to do so for quite a while, and Alfa Romeo was tempted but equivocated. The final consequence of conversion to volume was outsourcing. Following a trend initiated in the United States by General Motors in the 1920s French carmakers one after the other began to disintegrate their production, that is, to make less in-house and to buy more from suppliers. Beyond the loss of some competences, this had two implications. One was the growth of purchasing departments.⁴⁴⁶ The other was the partial externalization of design to companies of French and later Italian designers. Did these changes produce a “light” version of the corporate culture typical of the American auto industry? I do not think so. Inter alia, the past history of the industry and the memories of its personnel, the role of government, the presence of family firms, the available engineers, the type of industrial relations (with collective bargaining prevailing at Renault and Peugeot, and house unions at Ford, Simca and Citroën), the levels of income, and the emphasis on technological innovation differentiated French auto firms’ corporate culture both from prewar times and from contemporary America.

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Fernand Picard Archives, confidential Anti-American brochure of the early 1950s written and circulated by 4 leading engineers.

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Renault Archives, Personnel Department data.

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For Peugeot see: Nicolas Hatzfeld: *Les gens d’usine. Peugeot-Sochaux. 50 ans d’histoire*, Paris 2002.

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Yves Cohen-Hadria/Gérard de Pouvoirville: *L’évolution d’une fonction industrielle: le cas de l’achat*, thèse de 3e cycle de sciences de gestion, Université d’Aix-Marseille III, 1978.

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François Pinardon: *La rentabilité, une affaire de points de vue*, Paris 1989.

_ 448

The French translation of: *The machine that changed the world*, published in 1992, has a preface by Raymond H. Lévy, Renault's CEO.

_ 449

Christophe Midler: "Projectification" of the firm: The Renault case, in: *Scandinavian Journal of Management* (4) 1995, 363-375.

_ 450

Robert Belot/Pierre Lamard: *Peugeot à Sochaux. Des hommes, une usine, un territoire*, Panazol 2007, 39.

_ 451

Gilles Gleyze: *La gestion des cadres expatriés: le cas de la Régie Renault 1958-1993*, in: *Entreprises et Histoire*, May 1993, 30-45.

The extended sense of mobility by individuals and institutions and the progressive construction of a full range of models by the main French carmakers (except at Citroën) during the 1960s and early 1970s did not alter fundamentally this corporate culture. But in the early 1980s the rising star of Japanese auto companies that moved into Europe, the decline of the French carmakers' own market shares, and their poor financial performance led the two remaining firms to take up the matter anew. The existing culture clearly was identified as an obstacle on the path to recovery. It became all the more an issue as economic forecasts showed that European markets were getting saturated. Increasing volume consequently ceased to be the overall goal. The various initiatives taken in response may be reduced to three: Japanisation of management methods, modification of personnel structure, and priority to innovation.

Japanisation was all the more a discontinuity. Its origins lay in various study tours ("missions") to Japan by French company executives in the 1970s. Quality control was introduced first, by rank and file engineers. Its effects were initially underestimated, but it had far-reaching consequences, particularly at Citroën and eventually at other carmakers and suppliers. Disruptive of established relations between the main departments within French auto companies, it was not easily accepted. Later it was superseded by "Total Quality Management." Cost cutting came next, and, together with Italian influences, put profitability much higher on the ladder of corporate values.⁴⁴⁷ The use of robots is part of the story. Repackaged by American scholars in a best-selling book, Japanisation later developed into "lean production."⁴⁴⁸ Partnership relations with major suppliers were introduced, a major break with decades of harsh annual contracts. As a rule, they contributed to better quality and cheaper costs. Finally, project management was introduced at Renault in 1988, opening a path to greater synergies between different departments which led in the years after 2000 to cross-functional teams.⁴⁴⁹ Japanisation paves the way at the same time to a greater flexibility of corporate culture and to a reinforcement of its integrative dimensions.

The modification of personnel structure was stunning. To be sure, the growth in the number of cadres continued: by 2004 they made up 21.5 per cent of the working population at Renault, and 17 per cent at PSA (Peugeot Société Anonyme, also known as Peugeot Citroën).⁴⁵⁰ White collars now constitute the majority of the working population. The opening in 1998 of Renault's Technocentre at Guyancourt, where 12,000 white collars are spectacularly housed, reflects this development. The number of expats has risen.⁴⁵¹ More innovatively, the number and proportion of women has increased considerably, first among white collars (4 per cent in 1978, 11 in 1992, 21.7 in 2004), then also among blue collars. As of 2005, one out of five workers on Peugeot's assembly line in Sochaux is a woman, and they are 4 times more numerous than foreign work-

ers.⁴⁵² Other populations have declined including migrant workers and blue collars as a whole. As a consequence, the power of trade unions has declined. Similarly, the number of dealers in France has dropped: at Renault from 9,539 in 1984 to 5,166 in 2003, and the trend at PSA has been the same. This is downsizing at full swing.

But then why choose French vehicles? French carmakers need to make their case in markets. They innovate in design, in style, in various functionalities like the electronic key which opens a car with a beep.⁴⁵³ Peugeot does so with Diesel engines, Renault with minivans (1984), which created a new segment in Europe. Recently creativity has been revitalised at the Citroën division of PSA. By 2005 the auto industry had the highest percentage of Research and Development (R&D) expenses of all branches of the French economy. A further stage is the emphasis given to the exploration of new industrial problems.⁴⁵⁴ In 2004, Carlos Ghosn, then Renault's special envoy in Japan, declared that "developing a successful company culture in all locations is the highest priority."⁴⁵⁵ Of what does such a culture consist?

To several French observers of the auto industry, corporate culture is visible through the qualities and defects of the products.⁴⁵⁶ If we look at the distinctiveness of French automobile products since 1945, we can see negative aspects which arise from this corporate culture. French cars are not superior in speed – as a result of the demise of luxury products, of the belated development of motorways by comparison with Italy and especially Germany, and of tough speed limits from 1973 onward. They are not superior in quality – as a result of the initial primacy of production engineers, of the long deskilling of part of the labour force (in contrast to the German ethos of quality workers), and of the often weak position of customers.⁴⁵⁷ And safety is a value, but not to the extent it is in Germany. So, where do they excel and what makes them attractive?

A first element is the growing expertise in Diesel engines, pioneered by Peugeot, and, slightly later, the lower and declining consumption of fuel by engines.⁴⁵⁸ This is due to elements external to corporate culture, some of them long lasting such as the French government's taxation of the car as a luxury good and accordingly of gasoline as a luxury product, and some of them more recent, i.e. the French government's unceasing emphasis on fuel economy given the scarcity of oil resources.⁴⁵⁹ A second element is also lasting: the French both as spectators and drivers in auto racing. Road racing's impact on French cars is quite complex.⁴⁶⁰ But it is likely that the French passion for automobile sports has been a factor in attracting some skilled workers and white collars to the auto industry, and that auto sport has had effects both on auto technology and design.

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Belot/Lamard, Peugeot à Sochaux, 81ff.

_ 453
Innovation based competition and design systems dynamics: lessons from French innovative firms and organizational issues for the next decade. Ed. by Pierre-Jean Benghozi/Florence Charue-Duboc, Paris 2000.

_ 454
Blanche Segrestin: Innovation et coopération interentreprises. Comment gérer les partenariats d'exploration?, Paris 2006.

_ 455
Carlos Ghosn: Creating value across cultures: the Renault-Nissan case, in: *Enterprises et Histoire*, December 2005, 89-93.

_ 456
Jean-François Held: *Je roule pour vous*, Paris 1967.

_ 457
Patrick Fridenson: Automobile workers in France and their work 1914-83, in: *Work in France*. Ed. by Steven L. Kaplan/Cynthia J. Koepp, Ithaca 1986, 530-547.

_ 458
James Michael Laux: *Les moteurs Diesel pour les transports*, in: *Culture technique*, mars 1989, 20-28.

_ 459
Government, technology, and the future of the automobile. Ed. by Douglas H. Ginsburg/William J. Abernathy, New York 1980.

_ 460
Bruno Mauduit/Christophe Midler: La fougue dans la discipline: l'organisation de Renault F1, in: *Journal de l'École de Paris du management*, novembre - décembre 2000.

_ 461

Jean-Claude Daumas/Marc de Ferrière: *Le luxe*, in: *Entreprises et Histoire*, avril 2007.

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Quoted in the various books on the history of the DS.

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Roger Brioult: *L'histoire et les secrets de son bureau d'études*, Fontainebleau 1987.

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Pierre Bercot: *Mes années aux usines Citroën*, Paris 1977; Louis Schweitzer: *Mes années Renault. Entre Billancourt et le marché mondial*, Paris 2007, 168, 284.

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Robert Boyer and Michael Freyssenet: *The productive models. The conditions of profitability*, London 2002.

If we move to other distinctive features of French auto products, we see different components. The emphasis on aesthetics, pleasantness, comfort, freedom, “art de vivre” is clearly connected with the long French dominance in the luxury sector and the duration of the production of luxury vehicles by French car companies.⁴⁶¹ It had been redefined just before the war, in 1938, when Citroën’s new CEO, who had no direct experience of luxury cars, expressed his vision of a future mid-range car in terms that had a great impact in France: “more comfortable, spacious, aerodynamic, aesthetic and faster (...), without weighing and costing more.”⁴⁶² In the years since 1945, beyond the prewar designers André Lefebvre and the Italian immigrant Flaminio Bertoni, new names have become famous like Robert Opron, Patrick Le Quément, Anne Asensio and Jean-Pierre Ploué. Similarly, the technological inventiveness of French auto companies may be in part related to the early emphasis of French industrialists on luxury goods. It may also be connected to the “practical mind” of the engineers of the *Ecoles d’Arts et Métiers* and the values of comfort and safety. The role of France in spreading front-wheel drive (invented elsewhere) since the 1930s is motivated by these values, and in turn prompts some car makers to call in aircraft engineers to design innovative mass market cars.⁴⁶³

Only in one major type of new products have both French companies been absent: the SUVs. Designers and engineers had prepared such projects, but they were rejected by top management for two different reasons: the French cars did not have a customer base in the US, necessary to reach profitability; human resources in R & D were not large enough then to add a new type of vehicle. Only recently have French car-makers been catching up. Two CEOs from different generations, who deeply diverge in their leadership and in their product range, Pierre Bercot from Citroën and Louis Schweitzer from Renault, nevertheless concur in their memoirs that the Frenchness of automotive products embodies technological inventiveness, team spirit, conquering mind, and dedication to French roots. Schweitzer adds two elements: the openness of French culture, readily universalist, and cheaper costs than in Germany.⁴⁶⁴ But how do French companies differ from one another?

We should not limit ourselves here to brand image, but rather cover the corporate culture of each company in the sense that we outlined at the beginning of this article. We also need to include the research done by the “Groupe d’Etudes et de Recherches Permanent sur l’Industrie et les Salariés de l’Automobile” (GERPISA), an international network studying productive models in the history of the world auto industry, as corporate culture is part of a firm’s productive model.⁴⁶⁵ First we will examine two companies that were absorbed by Peugeot in the 1970s, then Peugeot itself, and finally Renault.

Two companies that survived up to the 1970s: Citroën, founded in 1919, maintained its founder's emphasis on radical innovation, which implied keeping the same pioneering models for a long period in order to recoup the research investment.⁴⁶⁶ This meant that it was not able to offer a full range of models to the affluent consumers of the late 1960s. Both market shares and profits declined. By 1968 its main owner, Michelin, after failing to agree with Volkswagen, had to accept the supervision of Citroën by Fiat. But the proud executives of Citroën and Michelin and the ambitious men from Turin were never able to find a "modus vivendi," and by June 1973 Citroën renounced the partnership.

In its high times Citroën had two distinctive cultural features. First, it was surrounded by secrecy, a characteristic inherited from Michelin. Here is an extreme example: it was only in 1985 that Paul de Casteljau, a mathematician at Citroën, was allowed to publish his discoveries of 1958 about curved models for design.⁴⁶⁷ Second, it was a kingdom of engineers.⁴⁶⁸ However, it was subject to an extreme division of labour and it proved technologically fragile. High-tech choices on forthcoming models are very risky, and in the late 1960s and early 1970s their discrepancy with energy costs and market changes left management with no other option than selling the firm to Peugeot in 1974. Ever since, Citroën has been a division of the PSA Peugeot Citroën group. Its models share many components with Peugeot's, and since the mid-1990s, also platforms. The Citroën division has gradually lost a specific corporate culture.

Born in 1934, Simca was originally a subsidiary of the Italian company Fiat, and after World War II was endowed with some autonomy.⁴⁶⁹ In 1954 it took over the French subsidiary of Ford, which was ailing.⁴⁷⁰ In 1958, Chrysler took a minority interest which became the majority of the capital in 1963 when it ousted the founder, and in 1965 the company was renamed Chrysler France.⁴⁷¹ In 1978 it was bought by Peugeot, then became a division of PSA under the name of Talbot. This strategy failed by 1982, when both the Talbot brand and the division disappeared. This turbulent history accounts for part of the company's culture. It never had technology as its focus. After 1945 what mattered was volume, which implied an export orientation. The three leading elements of the corporate culture were the quick transfer of foreign contents and methods (technology, human resource management, public relations, marketing), up-to-date styling, and advanced marketing. Historians cannot yet say what role wage-earners played in the evolution of the cultures of Citroën and Simca-Chrysler. From 1950 to the absorption of the two firms by PSA, house unions supported by management dominated the working population.

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Jean-Louis Loubet: *La Société Anonyme des Automobiles Citroën 1924-1968*, Paris 1979; Patrick Fridenson: *Genèse de l'innovation: la 2 CV Citroën*, in: *Revue Française de Gestion*, septembre-octobre 1988, 35-44; Joël Broustail/Rodolphe Greggio: *Citroën. Essai sur 80 ans d'antistratégie*, Paris 2000.

_ 467

Jean-Pierre Poitou: *Trente ans de CAO en France: ou les petits-enfants de Gaspard Monge*, Paris 1989.

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Brioult, Citroën.

_ 469

Philippe Saint-Marc: *Recherches sur l'histoire des usines Simca. Mémoire de maîtrise d'histoire*, Paris 1989; Gilles Pontet: *L'internationalisation de l'industrie automobile. Le cas de Simca 1958-1980. Mémoire de maîtrise d'histoire*, Université Paris IV, 1992; Jean-Louis Loubet/Nicolas Hatzfeld: *Les 7 vies de Poissy*, Boulogne-Billancourt 2001.

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Mira Wilkins/Frank E. Hill: *American business abroad. Ford on six continents*, Detroit 1964; Loubet/Hatzfeld, *Les 7 vies de Poissy*.

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D. Tixier: *Simca-Chrysler (France)*, in: *European case studies in business policy*. Ed. by George Hayward/David Lethbridge, New York 1975, 169-196; Charles K. Hyde: *Riding the roller coaster*, Detroit 2003.

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Jean-Louis Loubet: *Automobiles Peugeot. Une aventure industrielle, 1945-1974*, Paris 1990 ; Hatzfeld, *Les gens*; Belot/Lamard: *Peugeot à Sochaux*.

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Belot/Lamard: *Peugeot à Sochaux*, 365.

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Jean-Louis Loubet: *Renault. Histoire d'une entreprise*, Boulogne-Billancourt 2000; Patrick Fridenson: *The reformulation of Renault's identity since 1975*, in: *Perspectives* (51) 2006, 32-42; Didier Toussaint: *Renault ou l'inconscient d'une entreprise*, Paris 2004.

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Sardais, *Leadership*.

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Carlos Ghosn: *Creating value*, in: *Entreprises et Histoire* 91.

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Schweitzer, *Mes années Renault* 41.

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David Magee: *Turnaround: how Carlos Ghosn rescued Nissan*, New York 2003; Carlos Ghosn/ Philippe Riès: *Shift: inside Nissan's historic revival*, New York 2006.

Peugeot: Peugeot's corporate culture is continuously focused on profitability.⁴⁷² It relies on one side on mostly incremental innovation, on another on reliability of vehicles, and on repeated attempts to build a community among employees and among workers. While Peugeot reduced its welfare works between 1946 and the 1970s and moreover shifted from low volume to high volume output in the 1960s, it apparently managed to maintain the former characteristics. It has been argued that even during various strikes between 1960 and 1989 the sense of a common technological culture and of brand reputation prevailed among the majority of blue-collar workers.⁴⁷³

Renault: Renault's postwar culture implied a total change from prewar years.⁴⁷⁴ Government, the only shareholder, wanted the company to be a pilot in innovation and management. Management wanted to sustain growth, modernise industry and democratise consumption.⁴⁷⁵ Trade unions wanted lifetime employment and high wages. The combination of these various aspirations was mass production, and Renault became already in 1945 the market leader. This implied a culture where production engineers were long the key agents but where so much was at stake both at the top of the company and in the workshop that major choices implied a lot of discussion and compromises with unions. This could involve either openness or tensions (and many strikes up to 1985). In the 1990s, Renault became "known for its innovative design, cost management, product planning and marketing capabilities."⁴⁷⁶ It was privatised in 1996. In his memoirs, Renault's past CEO, Louis Schweitzer characterises Renault's spirit as featuring "freedom, creativity, boldness."⁴⁷⁷

In 2007, as of this writing, it is clear that a number of forces have been at work to change many elements of French automobile companies' corporate culture. Some come from demography. As in other Western automotive nations, there has been a massive wave of retirements, both among blue and white collar workers. The aging workforce, which has been an agent of stability for the corporate culture, is going to be gradually replaced by younger workers and managers, and includes a growing proportion of women. Even at the top, age has produced a changing of the guard. Renault has a new CEO, Carlos Ghosn, as of May 2005 and Christian Streiff at PSA is an even more recent appointee (January 2007).⁴⁷⁸ This creates conditions for further changes in the corporate culture.

Some changes come from ownership. Even if the Peugeot family has recently increased its share of the capital of PSA, the rest of the shareholders are now very international. The same applies to Renault, where the state's share has gone down to 15 per cent and where the third major shareholder is an American pension fund.

Some come from globalisation. As Western Europe is both a series of relatively saturated markets and of nations with relatively high labour costs, the two French car-makers are developing their plants and offices abroad (mostly in Eastern Europe and Asia). Similarly, the number of joint-ventures, alliances and other cooperation agreements increases continuously.⁴⁷⁹ Some come from Western consumers who feel that, because of financial markets' pressure on "shareholder value" and profitability, the prices of brand new French cars have become too expensive, and who turn either to second hand vehicles or to non-French models.⁴⁸⁰ Renault's "low cost" model Dacia (2005), although created for emergent markets, has become a response to such a need, and PSA, like other firms, will soon make a competing model. This is a challenge to the ranges built by French car makers since the early 1980s, centred on the middle segments, and to their established relationship with consumers.

Our appraisal of the corporate cultures of the two French companies under these conditions is that they will change again, which may be a source of stress for part of the personnel. Competition and cooperation between companies, new concepts of social responsibility and sustainable growth will lead these companies to combine global management and local identities as well as to revise their product range. As a result, the corporate cultures of the two French groups will probably remain different. <<

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Segrestin, Innovation.

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Bernard Jullien: Used cars markets as signs of resistance of consumers to the car manufacturers' conceptions of demand: a usage analysis of automobile systems?, in: *Alternative exchanges: second hand circulations from the sixteenth-century to the present*. Ed. by Laurence Fontaine, Oxford 2007.

14

Alf Lüdtke

**“German Quality Work” – Did it Shape the Production of
Automobiles in (West-) Germany after 1945?**

Both quest and claim for quality are a permanent current in self-presentations of German car makers as in analysts' comments. To take one example: In the last two years Volkswagen has regularly published an ad in nationwide newspapers displaying a car in the premium-segment, the Volkswagen Phaeton.⁴⁸¹ This ad features a photograph of a shining car. The accompanying brief text spells out what the sponsor obviously wants the onlookers to recognize: this is not only a nice but a particularly well-made car epitomizing quality production at its finest as if "made by hand." Thus, the car would represent the opposite of machine-made objects as they run out of mechanised or automated production lines, one item interchangeable with the other. In difference, this product – so the ad's textual and visual rhetorical unison implies – not only resembles but "is" precious because its features materially and aesthetically confirm any claim for the product's uniqueness.

The ad quoted above is one example from one of the big car makers in Germany. The topic, however, refers to a longstanding feature of advertisement in German industry in general and by car makers in particular. For instance, the claim for outstanding "quality" of its cars was a central feature of the ads issued by Volkswagen, a company that after WWII prided itself more than others on catering specifically to interests and means of "ordinary people." One of its ads from 1965 reads: "Quality from Braunschweig. Volkswagen combines safety and service economy, both built on the fundament of a precisely tuned production and executed most economically." – A few years later an ad for the US-market of the same company underlined the "excellent workmanship" which would guarantee unmatched reliability and, not to forget, outstanding fuel economy.⁴⁸² The multi-valences of claims for superior quality surfaced in an ad from October 2001. Here, the caption of a respective photo stressed that "many [companies] claim to deliver quality – we [Volkswagen] however, actually guarantee it: Original parts from Volkswagen are always part and parcel of Volkswagen quality and embody most advanced technology including all the know-how of those who have produced your Volkswagen." The emphasis of the specific trademark can be sensed easily from such texts and related pictorial representations.⁴⁸³

Advertisement aims at presumed customers whether they are already interested in the product or not. In difference, communications from the top level of a company to its middle-level management or to employees on the shop-floor address a rather limited public and are meant as "internal." In this vein, Carl H. Hahn, then CEO of Volkswagen, in May 1989 delivered a speech to high-ranking managers of the European branches of Volkswagen. The speech summed up a meeting this group had just held in Barcelona, Spain, where they were reviewing the actual state of the recently acquired SEAT-company.

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"Die Handarbeit spürt man in jedem Detail. Den Vorbesitzer nicht.", in: FAZ, January 13, 2007.

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Unternehmensarchiv der Volkswagen Aktiengesellschaft (UVW) Z 113/13/1.i

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Cf. also an ad from April 2002 reads: "The quality indicated by a trademark that will count in the future. Strong trademarks and their solid quality are lighthouses for orientation in a market that is becoming ever more diffuse for consumers and customers", published in *Automobilwirtschaft* 4 (2002), UVW Z 103/172/1.

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UVW Z 610/550/1, May 30, 1989, 6, 9ff.

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In intriguing ways this parallels slogans most prominently displayed in speeches of leading politicians of East Germany until October 1989, but also in the slogans in the media and on banners still displayed at official occasions in the streets of East Germany during the 1970s and '80s.

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Volkswagen added a premium-sector; both DaimlerChrysler and BMW offered cars designed to appeal to families and fans. Even Volkswagen which produced about 45per cent of its cars in other European countries or overseas by 1990 still expanded this globalization, thus pushing that rate to more than 60per cent at the end of this decade, see Ludger Pries: *Renaissance oder Agonie der deutschen und europäischen Automobilindustrie?*, in: *Deutsche Autoproduktion im globalen Wandel*. Ed. by Ludger Pries/Markus Hertwig, Berlin 2005, 15-37, esp. 29f, 31ff.

Hahn discussed the general goal of the whole Volkswagen Group but also alluded to present problems of the company. He underlined that “aggressiveness is as lifesaving as quality and productivity.”⁴⁸⁴ But to reach both quality and productivity it would be needed to undertake a “thousand small steps,” on all levels of the company and by everyone.⁴⁸⁵ What he saw as urgently needed was “Prussian austerity.” That should not be just a principle but ought to be executed every day, as Hahn underlined: “One has to start with the small things, for instance the infamous cleaning rags and with each gram of material and each second of production time.” If everybody would actively participate, so Hahn continued, “it will be possible to achieve and guarantee quality, economy and a good management of time, especially leading to early recognitions of mistakes or flaws.” He called for “increased responsibility of everyone and especially of those who have to deal with mistakes. It will be necessary to activate all workers in the production and show them to which extent they are part of the whole operation.” Here Hahn did not hesitate to invoke “good old times” – quoting from comments of a Volkswagen representative who during a recent visit to Japanese car makers had felt “as in good old days at VW.”

Recent analyses of production, work organization and marketing in western car industries since the early 1990s particularly emphasize “quality.” In this view, German “quality work” figures as pivotal for the “German model” of revamping this very industry. For instance, sociologist Ludger Pries in his analysis of the “big three” of German car makers, Daimler-Benz (from the mid-1990s to 2007 Daimler Chrysler), BMW, and Volkswagen lists the crucial features of their “offensive” against the “Japanese challenge” they increasingly faced since the 1980s (if not earlier). Pries refers to widening the spectrum of products and the large scale expansion of production from the national (and European) to the global sphere.⁴⁸⁶ At the same time, inside the companies management drove for intensified internal competition between production sites and even between individual departments within single plants to enhance rationalization and to boost productivity. Thus, within plants and on the shop floor each company in its own way tried to connect Japanese experiences of lean production with American principles of standardization. Pries contends, however, that there is still a third element lacking: “German quality work” (in the same vein he adds a fourth component: the national rules and company-specific forms of participation and co-determination). Still, it has become more dubious whether the wider public still readily accepts the claim of “German quality work” in car production. Did there not circulate reports of the toppling of Daimler’s A-class, its infamous “Elch-Test” in 1997? And again, Daimler when figuring as DaimlerChrysler: Hadn’t they even more recently suffered from several major call-backs of cars for lacking quality, especially with dangerous (non-) performances of electronic gear?

Still, as an icon and, perhaps, symbol “German quality work” is present and has valence. Random checks of industry’s press releases and of interviews with both representatives of the industry and of the metal-workers’ union show continuous references to quality or quality production. In these utterances German quality work appears as part of daily life on shop-floors in Germany: Thus, such accounts present those who fall short as striving hard to recuperate that standard as swiftly as possible. Also nobody appears to doubt that this kind of work reigned in the past and that customers – perhaps more so abroad than at home – regularly do expect proof of such quality from products “made in Germany.” However, to what extent quality products or their parts are nowadays actually “made in Germany” is one of the questions its propagandists rather circumvent.

The notion and claims of “German quality work” had their social and cultural bases in artisanal trades. In due time, not merely artisanal but industrial masters and engineers and, even more, skilled industrial workers took “German quality work” as a notion of reference. To all of them it would connect perfectly with self-assessment and aspiration. In fact, the term drew on but concomitantly idealized the jobs of repair mechanics and other specialists who operated on time wages and fulfilled non-repetitive tasks when preparing gear, or repairing tools, or operating machine tools (lathes, for instance) for individual orders. However, it was not necessarily formal training or apprenticeship that branded workers as “quality worker.” Thus, in the 1920s as in the 1930s young semi-skilled male workers who had been trained on the job to operate, for instance, universal machine tools were a case in point. They themselves but likewise company superiors, union functionaries and external observers regarded them as producers of “quality work.”⁴⁸⁷ Outside and inside the factories they found every justification for such self-assessment: Wage differentials, bonuses, and assignments of difficult jobs by superiors confirmed this assessment almost every day.

Let’s take a step back in time. From the late imperial period onwards, German labor and industry were increasingly thought of as characterized by “quality work” (*deutsche Qualitätsarbeit*). It was not only functionaries or journalists who saw in the years prior to 1914 German labor in this light: many workers, women as well as men, viewed their everyday practice, the toil of their handiwork or machine production, in terms of “German quality work.”

Being dexterous, especially if your productivity was above average, could pay off in a number of ways. For one, the chances were greater of doing well in a wage system based on increasing wage differentials. At the same time, it meant that you were spared constant supervision or advice. If the product was deemed satisfactory, then workers were granted room for manoeuvre in their specific work rhythm. In turn, work-

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See on the emergence of the notion and the *longue duree* of its broad social range Maiken Umbach: “Made in Germany”, in: *Deutsche Erinnerungsorte*. Ed. by Etienne Francois/Hagen Schulze, vol. 2, München 2001, 405-418; on industry and industrial workers (and unions) but also the notion’s special coloring after 1918: Alf Lütke: “‘Deutsche Qualitätsarbeit’, ‘Spieleereien’ am Arbeitsplatz und ‘Fliehen’ aus der Fabrik: industrielle Arbeitsprozesse und Arbeiterverhalten in den 1920er Jahren - Aspekte eines offenen Forschungsfeldes”, in: *Arbeiterkulturen zwischen Alltag und Politik*. Ed. by Friedhelm Boll, Wien 1986, 155-197.

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Management and supervisors on various levels pursued strategies for guaranteeing if not improving quality. They operated primarily in the context of the national society and polity. It was specific to Germany that the training of new labor was organized as a direct cooperation of private industry and a state-controlled system of training industrial apprentices. This specific path mirrored the centrality of artisanal and, hence, the state's interest in preserving this economic group and its well-established political conservatism since the late 19th century. At the end of a curriculum of three years skilled workers received a state-authorized confirmation, the "Facharbeiterbrief" testifying to their ability to pursue given tasks in ways of their own at the respective point of production in, for instance, metal working or machine construction. In fact, this training system contributed to reduce the gap between mass production and "flexible specialization" favoring specific skills in operating machine tools. Nevertheless, in the pursuit of the 1920s and 30s industries increasingly reduced the share of these skilled workers in their respective labor forces, across the board and the various metal industries; See on this Lüdtko, "Deutsche Qualitätsarbeit."

ers time and again devoted their attention and energy to their job; they took pride in accomplishing goals notwithstanding hardships and other obstacles such as breakdowns of equipment or inadequate organization of work. Employing their experience they demonstrated to themselves and to their superiors that they were no fools. American workers, by contrast, were given "fool-proof tools," as a union functionary proudly reported to his German colleagues in 1928!⁴⁸⁸

Work was more than just a means to an end. Instrumental aspects were mixed up with meanings in which work showed itself to be an exhausting but fascinating "metabolism with nature," as Karl Marx had put it. To endure daily hardships and to overcome the numerous risks of accidents at work imbued many workers with a sense of assertiveness. It was this experience which fuelled people's "Eigensinn" (stubborn self-reliance), by which they meant the effort to carve out niches of space, time and resources for themselves. The preferred way of displaying such "Eigensinn" was not resistance against "above" but distance from everyone, including your own work-mates.

At the same time, organized labor presented itself more and more as national labor. People celebrated the patriotic or national purpose inherent in wage labor in field or factory, and recognized the obligation to achieve an industrial or agricultural "performance." This interpretation was given enormous impetus among the entire population by the 1914 general mobilization for the war effort. And after the military defeat in 1918 most people, right across the boundaries of class, gender and generation, would have agreed that "revenge for Versailles" required ever more "German quality work." Therefore, it could not come as a surprise that labor organizations in the 1920s across the board subscribed to the call to promote "German quality work." Representatives of the socialist movement, and even of the communists, saw increased production as the only means to improve the living conditions not just of their members but of all working men and women. In fact, trade unionists seized upon "German quality work" as a principal line of defense in their struggle against increases in the division of labor and assembly-line production, a means to ensure a minimum of "living labor."

Two icons represented "German quality work." Around 1900 the muscular smith featured most prominently, brandishing his hammer with sovereign prowess. In the 1920s, however, the image of the experienced and cool machinist who tended his lathe or some other sophisticated machine-tool superseded an imagery that had invoked artisanal handicraft. Thus, the self-disciplined and experienced mind and hand supplanted the muscular arm and fist. Still, the image revolved around male bodies and the performance of males. The "quality worker" capitalized on but also re-enforced the notion of the male breadwinner.

Both visual representations and “images in people’s heads” were not just a product of indoctrination or manipulation “from above.” Rather, those images resonated with the real practices and experiences of and within people’s everyday lives. Further, these visual signs, in their ambiguity, allowed a range of variations, thus permitting and enhancing a kind of playful “Eigensinn.” It was the simultaneous interaction of playfulness and calculation of people’s interests - their mutual tension and complementarity - that generated a sphere of action in which individuals could also feel comfortable en masse.

Thus, around 1930 notions and images of “German quality work” had formed a pervasive myth of everyday life (Roland Barthes) encompassing simple handicrafts as well as technically-sophisticated machine operations. Most importantly, though, this interpretation conflated images of “quality work” with notions of “Germanness.” It was a specific and emotionally-charged view of oneself and of others that cut across divisions of class, gender, and generation. Its symbolism was all-embracing.

After the Nazi seizure of power in 1933, “German quality work” gained momentum through being used at public festivals like those on May Day. It should be remembered that May Day only became an official state holiday after the Nazis came to power! According to Walter Benjamin, these forms of “the aesthetization of politics” allowed participants “to express themselves,” while not offering them any chance “to exercise their own rights.” This, however, was precisely what constituted the appeal of marches, rallies, or camps: opportunities for expressing themselves hitherto unknown to “the many”! Perhaps it was because of his isolation as an exile that Benjamin failed to understand the political dynamics inherent in this realm of the symbolic. At the same time, he underrated the seamless connectedness of the unspectacular everyday practices – for instance, of working – with the spectacular ones. People used either or both to blend “old times” and “modern times” in ways of their own.

Respect by others and self-assessment resonated with formal ranking and the granting of relatively higher wages. Still important if not decisive were standards of and for “good work” that were accepted or shared across the lines of social distinction and class. The point emerges in a report of an engineer of the German Ford company who checked work performances at a French Ford plant under occupation in 1943. For him it was proof of lacking quality and quality consciousness among the French employees on all levels that quality controls were largely absent, and if they were practiced at all almost nobody seemed to check or readjust his tools: “They just do not have any specific measurement tools and what is particularly lacking is a well climatized special room

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Peter Leßmann: Ford Paris im Zugriff von Ford Köln 1943. Das Scheitern des Projekt eines europäischen Automobil-Konzerns unter deutscher Leitung, in: Zeitschrift für Unternehmensgeschichte 38 (1993), 217-233, cf. 227f: a report by the "Opelaner" Wiskott from June 13, 1943.

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Michael Mende: "Meist brauche ich nur den Kupferhammer und meine Hände zum Tüfteln..." Die tragende Rolle der Facharbeiter im deutschen Werkzeugmaschinenbau, in: Technikgeschichte 58 (1991), 315-330, 322ff.

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For efforts and even more limits of mass production in the Nazi era Wolfgang König: Volkswagen, Volksempfänger, Volksgemeinschaft, Paderborn 2004.

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In the 1920s large numbers of presumed customers, if not more generally the public more in North America and to a certain extent in Middle and Western Europe considered Ford's "Model T" as the car connecting those demands perfectly. In the US, people from the "middle class" in urban sites or the countryside took to this car and employed her for their daily chores as for occasional Sunday outings; cf. Steve Meyer: The Five Dollar Day: Labor Management and Social Control in Ford Motor Company, 1908-1921, Albany 1981.

for these checking operations. There were cases when people used specific 'Rachenlehren' for three years without checking them. Because nobody knew better ... Thus, people cut down 'Kurbelwellenzapfen' to 8 mm."⁴⁸⁹

The specific practices of measurements, more generally of quality control were at the centre of the interest of this engineer as obviously of his superiors. This emphasis reflects the stubbornness with which German managements in machine construction in general as in car production in particular circumvented if not obstructed efforts to change from universal machine tools – needing skilled and experienced workers – to specialized ones available for a semi- or unskilled workforce. In Germany it became a serious national issue during WWII in the government's campaigns to boost armament production from 1942 onwards. Internal reports from all levels of hierarchy amply document that these efforts did not lead to much avail. Within the companies or even individual factories the preference for universal machines and, by this token, worker's dexterity and production knowledge continued to reign. Decision-makers on this level effectively blocked investment in special machine tools: Between 1939 and 1944 the relationship between machine tools and people running them did not change (it remained at 2 to 35).⁴⁹⁰

From early on German car makers competed for superior quality of their products. However, between the 1910s and 1930s they chose an approach that differed from the path this industry pursued in other national contexts, especially in the USA. German cars should not win over common people. In turn, companies primarily sought to appeal to the well-to-do who would make car owning or car driving part of their conspicuous consumption.⁴⁹¹ Accordingly, German car makers saw leeway for higher prices that would cover expensive materials and labor. Of course, also cars designed for "mass consumption" had to combine efficiency with reliability – and these very cars were to be sold but at a modest price.⁴⁹²

Inside factories demands for cutting manufacturing costs informed efforts of management and middle-men as it did in other branches of machine construction industries. In the 1920s demands increased to reduce labor-input, especially its more costly species: skilled labor. Here, a wide array of practices to re-organize work-processes punctuated the workdays of supervisors; even more those practices penetrated the day- and night-shifts of foremen and production workers. They included techniques of analyzing the work-flow and, hence, speeding-up by redesigning jobs and dividing tasks or efforts for closing loopholes in (piece-) wage schemes workers had exploited.

In mass-scale production as in France, England or particularly the USA the quality needed for reliable cars was primarily attributed to engineering and rigid control of worker's performance. In Germany, however, dexterity and experience in handling materials and tools at the very point of production ranked higher, also among managers. And since they scheduled and calculated for small series if not single piece production their reliance on worker's expertise did work – and paid off.⁴⁹³

How to relate and even connect both mass production and “flexible specialization,” became a more urgent issue after WWII.⁴⁹⁴ During the Cold War also the German car industry joined the general course and embraced the goal to produce cars for everybody.” This swiftly became an economic pivot and also a symbolical icon of the turn towards a “Western” mode of living. Cars in the hands of ordinary people would ultimately prove American or Western supremacy.⁴⁹⁵ Males but also females should encounter cars as part and parcel of their everyday life, cars that would connect features of an appliance with the attractions of a gadget.

The extent to which the claim for superior quality was taken seriously in industry but also beyond is reflected in the strategies of companies' advertisement employed abroad. And when the folk singer Janis Joplin referred to her dream of a “Mercedes Benz” in one of her songs in the late 1960s it became evident even to the skeptics of the capitalist system how much certain of its icons reflected not just claims of industrial propaganda but even visions of a “good life” that resonated even among critics of this very system. At the same time the economic success of the Volkswagen Käfer or “Beetle” since the 1960s enhanced such perceptions on the German side. Indeed, in these years the “Beetle” made its way onto American high- and expressways as well as inner city streets.⁴⁹⁶

In Germany claims of industrial managers or supervisors for quality and quality production in non-taylorist ways prevailed beyond the military defeat of Nazism (and of industry, having wilfully-smoothly participated in the war effort).⁴⁹⁷ Thus, in the Western part of Germany management did not abandon its reference to worker's dexterity and personal experience with materials and tools.⁴⁹⁸ However, in car production companies which actually stuck to this line and primarily relied on workers' skills to operate from blueprints and to cope on the spot with irregularities of work-flow ran into severe trouble if not into ruin (as did in 1961 the Bremen-based company and its “flexible specialization” featuring small series of luxurious cars).

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Countervailing evidence (the near bankruptcy of Daimler-Benz in the mid-1920s or the failure of the Hanover based locomotive and tractor manufacturer Hanomag to turn its small car released in 1925, nicknamed “Kommissbrot”, into an economic success) indicates management's limits of learning how to adapt their preferred strategy to both conjunctural changes and, in the longer run, the dynamics of mass consumption. See photo No. 47 in: Grieger/Schlinkert, Werkschau 1.

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See for the concept and its bearing for the analysis of different trajectories of industrialization Charles Sabel/Jonathan Zeitlin: Historical Alternatives to Mass Production: Politics, Markets and Technology in 19th Century Industrialization, in: Past and Present 108 (1985), 133-176.

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Anselm Doering-Manteuffel: Wie westlich sind die Deutschen? Amerikanisierung und Westernisierung im 20. Jahrhundert, Göttingen 1999.

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See generally for the USA Liz Cohen: A Consumer's Republic: The Politics of Mass Consumption in Post-War America, New York 2003; as to efforts of German car manufacturers to establish their products in markets abroad see Wolfgang Meinig: Die deutsche Automobilwirtschaft im europäischen und internationalen Wettbewerb, in: Made in Germany. Die internationale Wettbewerbsfähigkeit der deutschen Wirtschaft. Ed. by Volker Kahrman/Dirk Sauerland, Stuttgart 1991, 37-53.

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See on the continuities of managerial elites after 1945 in the FRG Volker Berghahn: *The Americanisation of West German Industry, 1945-1973*, Lemington Spa 1986; *Von Stalingrad zur Währungsreform*. Ed. by Martin Broszat, Munich 1988, 551-591.

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Here I do restrict myself to West Germany. Many engineers and workers had already staffed car manufacturing companies in Saxony and Thuringia when they had built cars of great fame (Horch; Audi), in the 1920s and '30s. However, in East Germany the ruling party (SED) up to the mid-1970s pursued the line of demotivating individual car ownership; cf. Jonathan R. Zatlil: *The Vehicle of Desire: The Trabant, the Wartburg and the end of the GDR*, in: *German History* 15 (1997), 358-380, 366f. Still, the planning apparatus did not concern itself too seriously with such lines. On the other hand, the "Trabant" and the "Wartburg" in their 1950s/60s design and technology were not considered to be profitable export goods to the West. It was this fate of considered economical "second rate" that prepared the ground for a specific and intense cooperation in car production: In his voluminous account Peter Kirchberg presents an impressive array of small-scale technical improvements and changes that were one way or the other introduced into practice. To do so engineers and managers relied on a mixture of craftsmanship and manufacturing enthusiasm among people on the shop floor and in the construction bureau: it was such cooperation of "German quality workers" that kept cars mobile and the car industry in the GDR afloat, cf. Peter Kirchberg: *Plaste, Blech und Planwirtschaft. Die Geschichte des Automobilbaus in der DDR*, Berlin 2002, *passim*.

Notwithstanding, most other car companies enhanced mass production. Thus, management vigorously embraced mechanization and systematized organization of work processes. To achieve rapid growth the industry employed a blend of taylorist and fordist methods. In this context, the separation of planning, execution and control of tasks and jobs remained an uncontested clue for most "modern" industry and, hence, car production. At Mercedes-Benz, for instance, this matrix materialized in 8 or 9 different levels of hierarchy. The line went up from production workers (comprising non-skilled, semi-skilled and skilled workers) to foremen, to masters, to group masters, to supervisors of "Hauptgruppen," to department chiefs, to main department chiefs, to "Fachbereichsleiter" and, finally, to the "Werksleiter" (chief of plant).⁴⁹⁹

In West Germany, the rapidly expanding car industry more than doubled employment between 1950 and 1970. However, at Volkswagen plant Wolfsburg the percentage of repetitive jobs remained constant at 66 per cent (among those working in production, which comprised nearly 60 per cent of the total workforce).⁵⁰⁰ But also non-repetitive jobs were increasingly performed by un- or semi-skilled workers: Volkswagen had reduced the employment of trained workers ("Facharbeiter") already by the mid-1950s to 25 per cent. Crucial in this context is: This management policy strongly resonated with union goals of growing employment at rising wages. Simultaneously management also satisfied aspirations of the core workforce: these skilled or longstanding workers strove for and to a considerable extent did exercise control of their work processes, whether they used tools by hand or operated "at" (mechanized or automatized) tools.⁵⁰¹ Even more, not only managers, engineers and "middle-men" (masters, team-chiefs) but also workers across the internal divides considered the precision of regular measurement and the untainted smoothness and evenness of surfaces (not merely of finished products but also of their internal parts) crucial for having done "a good job" and achieving "quality."⁵⁰²

In January 1983 the department of public relations of Volkswagen published a brochure "Working on the car: To make sure that the world of tomorrow is not from yesterday."⁵⁰³ This slim booklet on 44 pages displayed more than 100 black-and-white photographs, many of them being close-ups of specific moments of welding, painting or assembling cars. In addition, brief texts provided context and, in particular, stated that all who pitched in the production of cars (the "Autobauer") operated among the very vanguard of their times. More concretely, the pictures and texts revolved around the introduction of robots at Volkswagen. Accordingly, since 1971 automatic electro welding of frames had been developed and, in due time, put into operation. As a central message the text emphasized that by the introduction of robots working "had become

less hard but not simpler.” At the same time, however, the “demands are growing for responsibility on the job and for quality consciousness. And it is here that men cannot be supplanted” (p. 5).⁵⁰⁴

As an example of automatized work processes the booklet presents the painting department: coating and painting by robots would drastically reduce risks for workers and at the same time increase the quality of their products.⁵⁰⁵ As proof the authors mention changes of warranty conditions for this part of the car: Volkswagen had expended this warranty to six years. To show the difference the brochure turns to the further processing of welded frames. For instance, each car is provided with doors; before they are attached specialists just check the frame and detect by the feel of their hands any final unevenness (p. 30) which they, then, let take off. The anonymous author adds that assembly lines and other work stations of this department were reconfigured for ergonomic and medical reasons when elsewhere robots began to operate.

At the same time, i. e. in 1980 – so the booklet continues – Volkswagen introduced teamwork and enriched tasks. The text goes into detail: previously workers performed just one specific hand movement time and again. When fulfilling the task they sometimes had to walk about 20 metres while the assembly line moved. After the recent changes the same people would stay put and apply different tools and execute various operations in finalizing “their” product. One interviewee is quoted by saying that before these changes he time and again repeated just three or four specific movements and was only assigned to complete back seats. And he contends that after the changes he would cooperate with three colleagues and they would complete inside equipments of a car, that is here, the back as well as the front seats (p. 34 f.).

In its final section the booklet mentions again the responsibility of every individual on the shop floor as pivotal for the new system of production. Increased automatization would not allow for the pursuit of previous customs in work and communication. At first many workers seemed to withdraw and focus solely on their specific task even if that one had been enriched. The company authorities – so the authors underline – had reacted by establishing workshop-networks and contact circles on the shop floor within each department. Central to these measures was the focus on quality maintenance and quality control: “Quality cannot be achieved by testing but has to be produced” (p. 42): For instance, in the foundry workers would now check their products themselves piece by piece while inspectors visited only randomly to take samples.

The article concludes that increased participation in matters of work organization and quality control had given many a boost to their morale. Not only masters and vice-

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Cf. Michael Stahlmann:
Von der Werkstatt zur Lean
Production, in: Zeitschrift für
Unternehmensgeschichte 39
(1994), 219-243, 234.

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Martin Kuhlmann:
Modellwechsel? Die Entwicklung
betrieblicher Arbeits- und
Sozialstrukturen in der deutschen
Automobilindustrie, Berlin 2004,
108-117; between departments
these figures strongly differed,
e.g. in coating / painting in the
late 1970s about 80per cent
of the jobs were constantly
repetitive while in the foundry
as in mechanical engineering
at the same time between 80
and 90per cent of the jobs
were and remained non-
repetitive, see Werner Wobbe-
Ohlenburg: Der Einfluß neuer
Produktionstechnologien auf die
Struktur der Automobilarbeit:
eine Fallstudie zum Einsatz
von Industrierobotern im
Volkswagenwerk Wolfsburg,
Göttingen 1982.

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See on this distinction
Heinrich Popitz: Technik und
Industriearbeit, Tübingen ³1976,
112ff, 117ff, 128ff.

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In car making the rapidly
increasing usage of cast materials
for motors and transmissions
added another dimension to
“quality” and “quality work.”

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Arbeit am Auto. Damit die Welt
von morgen nicht von gestern
ist. Ed. by Volkswagenwerk AG,
Öffentlichkeitsarbeit, Wolfsburg
1983, texts by Hans-Joachim
Langner, Anne Winkel-Kirch,
cf. 43.

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See photos in: Arbeit am Auto,
18/19, 21, 40/41.

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Handling prior to this, see
Grieger/Schlinkert, Werkschau 1,
photo No. 56.

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Wolfgang Streeck: Kollektive
Arbeitsbeziehungen und
industrieller Wandel: das Beispiel
der Automobilindustrie, IIM/LMP
86 – 2, Wissenschaftszentrum
Berlin 1986, 5f.

masters but also ordinary production workers felt recognized and taken seriously “at last people ask us” (p. 42). Even more, after some time even the experts of quality control were to be quoted: “quality has been improved up to every detail” (p. 43).

Beyond this example, sociological studies of changes in the West German car industry in the 1970s and early 1980s underlined that restructuring aimed at two goals at once: mass production that would deliver premium products. That meant to achieve mass production and at the same time to accommodate quality standards of premium products. As Wolfgang Streeck stated in 1986, it would be this “constellation of diversified premium production of large numbers based on excellent design and rigorous quality control that will guarantee productivity and profit for the car industry in the Western industrial countries with high wage levels.”⁵⁰⁶

Around 1990 not only the implosion of the socialist countries changed the world. At the same time “Toyotism” finally got momentum in European and North American Western car industries. Certainly, team work and other “Japanese” methods had been introduced since the late 1970s piece by piece. But analysts coincide that the early 1990s brought a new and more coherent emphasis to finally appropriate the main features of this scheme that fuelled such a longstanding global success. The 1980s had seen first efforts to change one’s own procedures. The introduction of teamwork at Volkswagen in the early 1980s quoted above is a case in point. Accordingly, managers focussed in new ways on strengthening and exploiting human resources, in particular the motivation, cooperation and communication of the employees. The slogans propagating the new effort connected teamwork, lean hierarchy and responsibility of every individual wherever he or she worked and in whatever capacity in producing, supervising, guiding, administering, or teaching.

Still, distinct concepts and “ways of doing things” of companies if not individual plants determined the trajectories. For instance, Opel Bochum introduced in 1989 a “quality network production system” (QNPS). The teams that were formed consisted of 8 to 15 workers, and the team speaker was elected by the group. During the paid working time regular talks took place up to one hour per week. Safety and specifics of working conditions were topics as was the schedule of vacations. Primarily, though, the issues were individual qualification and training and, especially, quality control and the individual’s performance within the team. To be sure, debates but also the daily interactions in the team were not always easy. Participants reported that contestations occurred and even bitter fights (with words). Nevertheless, studies show rather positive assessments. People underline how important it is to them that in these meetings one can air and discuss topics which never before were to be presented publicly and “officially.”

Teams were likewise pivotal at the brand new plant Opel erected in the early 1990s at Eisenach, previously the site of one of the two East German car makers, here of the “Wartburg” (prior to 1945 part of BMW). However, at the Eisenach plant the teams were (and are still) much smaller (6-10), and hierarchy comprises just 4 or 5 levels. And yet another contrast: while at Bochum the teams elected their speakers at Eisenach they were selected by a specific “human resources commission” (the worker’s council has to consent, though). And the frequency and length of team meetings is restricted to about one hour per month. For the company this scheme seems to work: at Eisenach the time for making a car has been reduced to 60 per cent of the average of European plants and, similarly, wages were cut in August 1993 to 53 per cent of the wages in the two other (West) German Opel plants, Rüsselheim and Bochum.⁵⁰⁷

Lean production was also the central guideline for the new plant Mercedes-Benz established at the same time in Rastatt in the early 1990s. Here work conditions offer comparative advantages: jobs demanding to operate beyond one’s head do not exist anymore as one has reduced working at assembly lines. Primarily workers form teams and operate their tools in boxes and on moving platforms. Teamwork is central as is the effort to enhance responsibility and room for manoeuvre at the very points of production.⁵⁰⁸ In Mercedes-Benz plants in 1993 in general about 20 per cent of the production workers operated in teams (at that time the goal was to bring this general figure to 30 per cent by the end of 1994).

Notwithstanding the just mentioned examples to upgrade the efficiency of production schemes it took car producers in the US and in Europe a while to recognize the challenge of the Toyota production system. Their efforts to keep pace if not to pass “the Japanese” primarily focused on measures to curb if not to cut costs. Only after almost 20 years a more coherent response was designed, this time in the context of Volkswagen. Under the label “Auto 5000” a new separate company was founded, however fully owned by Volkswagen. The plan was that up to 5000 newly hired workers, masters and engineers – most of them never had worked in this very industry – should develop new forms of active cooperation in their respective “process team.” Thus, they would cooperatively strive for a common goal: to produce a most reliable, efficient and elegant but still affordable car. Certainly, to keep down and even undercut costs remained a fundamental feature also of this strategy. For instance, almost all workers of the new plant were freshly recruited to the auto industry. Most of them had been trained as skilled workers (“Facharbeiter”), and every other of this overwhelmingly male workforce had worked in a metal trade or in electrical production or engineering.⁵⁰⁹ However, nobody had been working at Volkswagen or with another car-maker before, and many had encountered at least a few months of recent unemployment.⁵¹⁰

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Of course, also the lower rates as agreed upon by the metal workers union have their impact for this dramatic cutting of costs, cf. Stahlmann, Werkstatt, 238.

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See Stahlmann, Werkstatt, 238ff. Among other goals was the reduction of employees in the production process, the goal ranging from 25 to 40 per cent. For these and the other figure quoted by Stahlmann, Werkstatt. More recent figures have to be checked.

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Michael Schumann: Ein neues Fabrikkonzept - wissenschaftlich begleitet, in: Auto 5000: ein neues Produktionskonzept. Ed. by Michael Schumann/Martin Kuhlmann, Hamburg 2006, 9-18.

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See Schumann, Fabrikkonzept, tables 17 and 18, 175f.

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Schumann, Fabrikkonzept.

_ 512
Martin Kuhlmann, Good
Practice einer integrierten
Fabrikorganisation, in: Schumann,
Auto 5000, Hamburg 2006, 91f.

_ 513
See Schumann, Auto 5000, 190ff.,
tables 35-38.

_ 514
Martin Kuhlmann: Innovative
Arbeitspolitik in der
Automobilindustrie, in:
Europäische Automobilindustrie
am Scheideweg. Ed. by Ludger
Pries/Christian Busowski,
München 2006, 139-156.

When the plant began its operation in 2001 its almost 4000 employees did not work behind closed doors. One part of the project and an element of particular interest for the cooperating metal workers' union was the long-term participation of an independent research institution, the Soziologisches Forschungsinstitut (SOFI).⁵¹¹ The research team considered six features of the "Auto 5000"-concept as pivotal. Among them is production by teams that range from seven to seventeen members. One of the goals of the focus the project puts on team work is to expand tasks and enrich jobs and, at the same time, to stimulate self-organization of these teams. The researchers observed that the division of labor between those who run complex systems ("Anlagenführer") and those who perform repetitive assembly work ("Einleger") appears as less rigid than it used to be. According to this survey all members of teams across the board participate in maintenance; or: "Anlagenführer" also pitch in when there is need for manual work (for instance in the painting or coating department). Generally every team is responsible for preventing technical breaks or other unexpected delays.⁵¹²

Still, repetitive jobs provide considerably less room for maneuver. Here, a work unit comprises usually less than two minutes. At the same time, however, these jobs have been partly enriched by including steps of quality control and by adding supply tasks. In the same vein additional tasks have been introduced, for instance regular checks of certain tools. A broader range for decision making on the shop floor resonates with efforts to level hierarchies. While in general workers assess teamwork and the teams' self-organization positively, on issues of hierarchy researchers record remarkable differences between those who perform repetitive jobs, and those who are dealing with jobs containing a spectrum of performances.⁵¹³

Except for "Auto 5000" evidence of restructuring of production and work processes in the car industry is primarily provided by the car making companies themselves. They convey as an underlying assumption that reorganisation works, and people mostly keep to the blue-print of the respective plan. However, the industrial sociologist Martin Kuhlmann shows that reorganisation schemes rarely lead to any comprehensive reorganisation. Rather, in the everyday settings of companies and individual plants he found a mixed bag of separate and specialized projects that people pursued without even trying to relate them. Although the label "system of production" abounds the actually limited and scattered (and short-lived) efforts almost never seem to build up towards any "system." One of the effects of such muddling-through is, then, to simultaneously stimulate individual skills and competences by supporting teamwork while other strategies on the very same shop floor not only ignore but counter such efforts by unilinearly pressing for cutting costs and intensifying output of every individual.⁵¹⁴

More generally, such findings intensify the quest for interpretive tools for the field of force which is at stake here. For good reasons pleas to focus on a “company culture” increasingly find resonance. This can be an approach to the issue that is central here: “How do they do it?” and “What do they draw upon in their behaviour?” But as strategists discovered some years ago, the effort should be to get to the shop-floor and to carefully pursue interactions within and between each (sub-) unit of the specific plant. Thus, I would read “company culture” as the ensemble of practices of acting within a company individually and in groups, whatever the structure or formal status of the latter may be. These actions include defining (and contesting) one’s job as they comprise the manifold ways of people to actually do (or circumvent, subvert, or change) it. How people employ and appropriate, form and dissolve social settings and interactions is part of the panorama that should be explored.⁵¹⁵ This is also saying that efforts to trace national types of “company culture” or of conflict regulation (or worker’s participation, for that matter) remain too abstract: they overlook that concrete arena in which things and relationships are “made” and “do happen,” and they need scrutiny of smaller units, in this case single plants within companies.

À propos: According to the SOFI-Study on “Auto 5000,” the acceptance of teamwork at the plant has increased over the last two or three years. Nevertheless it is still an open issue to what extent the operation so far has been driven by the enthusiasm of the “fresh start.” An outside observer, the industrial sociologist Ulrich Jürgens emphasizes that the crucial challenge will not be the change of models and its hype but how to “normalize” and sustain a constant drive for restructuring the organization of work.⁵¹⁶ Can people creatively reproduce or produce anew such an atmosphere of adventurous cooperation beyond limited “campaigns”? And it seems here that the tools of the research team reach their limits – prospective certainty cannot be derived from empirical investigation of actual settings, whatever their finesse may be.

At “Auto 5000” about 85 per cent of workers with repetitive jobs responded that the guideline calling for enriching jobs had been accomplished at best on a “fifty-fifty”-level (and about one third of the respondents ticked a considerably lower mark), it is certainly not general, but widespread reservation if not skepticism that one can sense.⁵¹⁷ However, in this very survey about 50 per cent of such workers who perform repetitive jobs indicated that their proposals and requests for reorganizing their respective jobs have been implemented, at least to a large extent. Comparing both responses one cannot but wonder what in fact the experiences but also the expectations of these people are. More concretely: To what extent was their strategy of responding informed by the aim neither to show too much enthusiasm nor too stark distance? In this reading responses like those registered in the survey may revolve in the first

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See more generally *Wirtschaftsgeschichte als Kulturgeschichte. Dimensionen eines Perspektivenwechsels*. Ed. by Hartmut Berghoff/Jakob Vogel, Frankfurt am Main 2004; for an approach emphasizing the national figuration see Steven Tolliday/Jonathan Zeitlin: *Shopfloor Bargaining, Contract Unionism, And Job Control: An Anglo-American Comparison*, in: *On The Line. Essays And The History of Auto-Work*. Ed. by Nelson Lichtenstein/Steve Meyer, Urbana/Chicago 1989, 219-244.

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Ulrich Jürgens: *Die Begleitforschung in der wissenschaftlichen Außensicht*, in: Schumann, *Auto 5000*, 124-133, 126, 130 132f.

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Cf. Schumann, *Auto 5000*, 190, table 35.

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Michael Burawoy: *Manufacturing Consent. Changes in the Labor Process under Monopoly Capitalism*, Chicago 1979, XI, 46-73; cf. also Alf Lüdtke: *Eigen-Sinn. Fabrikalltag, Arbeitererfahrungen und Politik vom Kaiserreich bis in den Faschismus*, Hamburg 1993, 10-12, 136-143.

place around workers' aims of "making out" and "getting by." And certainly they mostly operate below or outside the gaze of the sociologists.

Insights into such informal standards and practices may derive from extended participation in the everyday of industrial production, like the exploration of a shop floor by the industrial sociologist Michael Burawoy.⁵¹⁸ In the mid-1970s Burawoy worked for about one year as a manual worker in a US machine construction factory. What he shows are practices that sustain and even speed up the flow of production by "making out," that is to take "yet another" job or machine tool than the shift or week before.

Primordial, though, for the very potential to "make out" also the next day is not whatever appreciation this may earn from above. On the contrary, the aim is to earn or secure, at least not to jeopardize collegial respect and, thus, cooperation among mates. For instance, joking relations within and between teams seem crucial; they prepare or assure the ground for "making out" for oneself and the team in the asymmetrical field of forces the company presents. Joking relations, for instance, not only reflect but actively work on tensions, distances and conflicts between people. Utterances or gestures may express support; but they can also signal hostility, and even more, they may reflect or announce shifts from one to the other and back. A range of silent or verbal expressions or interactions can allow for compensation of hardship or injustice workers and their teams encounter. But joking may also open and at the same time cover niches "of one's own" that literally provide space for oneself, if for a moment or for individual or collective action.

This is also saying that ways of cooperating and at the same time keeping distance whether individually or in concert with others is produced and worked out in and by gestures, grins or laughter, by cracking jokes but also in and by silent gestures and body movements. The whole range of the emotions and their logics that are part of people's activity while doing their turn in the team are particularly important when it comes to the (partially) different or new ways of organizing mass production and combine it with rigid quality expectations and nuances.

Efforts to shift from control by distrust (as fundamental to Taylor's method) to control by cooperation and (certain forms) of trust seem to enhance room for manoeuvre on the shop-floor but also demands for operating responsibly. Not the least, in people's everyday practice responsibility also spells out as mutual control. And the latter often proves much more rigorous than previous forms of regulation: it is one's sense of commitment that is invoked and teased: "We need you, please don't take sick-leave

tomorrow,” or: “Again, your car lacks quality,” or: “You took the break at the wrong time.” Or in the parlance of a production manager: “The team is much more sensible and effective than a manager when it comes to overcoming deficiencies.”⁵¹⁹

These new forms of organisation of work processes on the shop floor require “Systemregulierer,” at least when semi-automated steps of production are part of the flow and process of work.⁵²⁰ Their job is multifaceted and definitely much more enriched than traditional skilled work. Still not only “Systemregulierer” but all members of a team share responsibility for tooling as for measurement and control. Studies from the late 1990s and early 2000s show that the intensity and range of actual realisation of the various features of teamwork determines satisfaction of workers with these changes.⁵²¹ Interestingly enough, about three quarters of responding workers indicate that demands have sharply intensified notwithstanding whether teamwork has been introduced full scale or only partly. At the same time, however, satisfaction scores among workers double or triple when they encounter even some teamwork features.

However, the majority of manual workers, especially those being part of the still existing assembly lines do not have much of a chance to be trained and acquire the prerequisite qualification for “Systemregulierer.” In other words, the split if not gulf between helpers and manual workers “old style” on the one hand⁵²² – and the small minority of multi-task workers seems much wider than in previous systems and processes of production between, for instance, foremen and operators. The ways of coping and dealing on either side of this divide: their cultures of communication and conflict over work may vary according to site and company context; they may reflect the economic cycle and changes in job security. Across the differences and divides one resource seems still attractive. All participants and (potential or actual) contestants in this “field of forces” mine the claim for “quality work.” And it seems that most do not mind a dose of “Germanness,” and claim to perform, at least when talking to themselves: “German quality work.” <<

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Stahlmann, Werkstatt, 240.

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See Martin Kuhlmann, Kap. III, in: Michael Schumann et al.: Trendreport Rationalisierung: Automobilindustrie, Werkzeugmaschinenbau, Chemische Industrie, Berlin 1994, 172ff.

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Michael Schumann: Metamorphosen von Industriearbeit und Arbeiterbewußtsein, Hamburg 2003, 79f.

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Schumann: Industriearbeit, 40: In manual production the reutilizations of brief standard movements has, again, become management’s main route of regulating and intensifying industrial work in car production.

15

Vladimir M. Iamashev

**AvtoVAZ during the Radical Economic Transformation
of the 1990s**

The motor vehicle manufacturing sector of the Volga region's mechanical engineering industry is one of the most promising sectors in Russian industry. As a rule, companies in this sector are the dominant enterprises in the cities where they are based, and valuable contributors to federal and local budgets. In addition, the Volga region's motor vehicle industry is characterized as "high-tech," mass-production manufacturing, which represents an extremely significant part of Russia's industrial potential. Historically, AvtoVAZ has had a significant share in the Russian motor vehicle market ever since it was created. One of the most important aspects in increasing efficiency of production during the 1990s was, therefore, ensuring the production of good quality materials and components. The difficulty lay in the fact that the number of suppliers providing AvtoVAZ with components grew from 87 to 151 during the given period. The number of different parts being supplied to AvtoVAZ grew from 2,772 to 3,820.⁵²³ These changes had a significant influence on quality.

Extensive work was done at the company with the aim of improving product quality and reducing losses from defective goods. Specifically, this involved helping suppliers to organize constant quality checks of the parts they were delivering to the assembly line, as well as the quality of technology produced, and helping them to introduce such quality checks into the production processes for parts and materials. In practice, however, it became clear that the quality of production could not be improved simply by increasing quality checks. The quality control service assessed the quality of the finished product on which labor and materials had already been expended. Foreign experts and company managers noted that the main problem with such a quality control system (also in use at motor vehicle factories in the USA) was that, "The control systems are based on the clear assumption that 90 per cent of people are lazy 'good-for-nothings' just waiting for the opportunity to deceive [their employer], steal or make fools of us in some other way. We are demoralizing the 95 per cent of workers who behave like adults by creating systems that conceal our weak spots, which arise from the fact that 5 per cent are indeed lazy 'good-for-nothings'."⁵²⁴ According to specialists and managers, improvements in quality can only be achieved when every worker contributes to the work and makes an effort to do so, i.e. when the workers themselves search for, analyze and suggest ways of improving quality and increasing productivity.

During the 1990s the share of defective goods in the cost of production at AvtoVAZ increased by almost 150 per cent, reaching 0.53 per cent.⁵²⁵ Meanwhile, around 70 per cent of all defects were discovered by the quality control service. Of these, 40 per cent were defects caused by shoddy work. In the mid-1990s the quality level of front-wheel drive vehicles stood at 54.5 per cent. For rear-wheel drive vehicles it was 56.5

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Calculated according to material in annual reports on the main activity of AvtoVAZ for 1985, 55, and for 1995, 11 (Here and henceforth, the current archive of AvtoVAZ).

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T. F. Piters/R. V. Uotermen: V poiskakh effektivnogo upravleniia. Opyt luchshikh kampanii, Moskva 1986, 97.

_ 525

Annual report on the main activity of AvtoVAZ in 1995, 13.

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I. A. Sidorskii: Na krutom povorote: Pervye itogi ekonomicheskogo eksperimenta v ob edinenii 'AvtoVAZ', Kuibyshev 1988, 56.

_ 527

Compiled according to: Avtomobil'naia promyshlennost' v tsifrah za 1985 g., Moskva 1986, 316.

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Ibid., 317.

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Compiled according to: A. Kovrigin/A. Grodetskii/ A. Zotnikov: Tsenoobrazovanie v avtomobilstroenii Rossii // Rynok SNG: Avtomobili, traktory, 1997, 50.

per cent, and for VAZ-2121s it was 54.3 per cent. In other words, almost 45 per cent of all the production checked at the factory had defects.⁵²⁶ The working culture had deteriorated. At this time, equipment was getting older and technical standards were falling both at companies that supplied raw materials and other materials, and at the vehicle assembly factories.

The rate at which machinery was replaced at the companies, however, stayed within established norms. In 1985, the age breakdown of machinery at companies in the central Volga region's motor vehicle industry was as follows:

Age breakdown of machinery in place in 1985 (including automated production lines)⁵²⁷

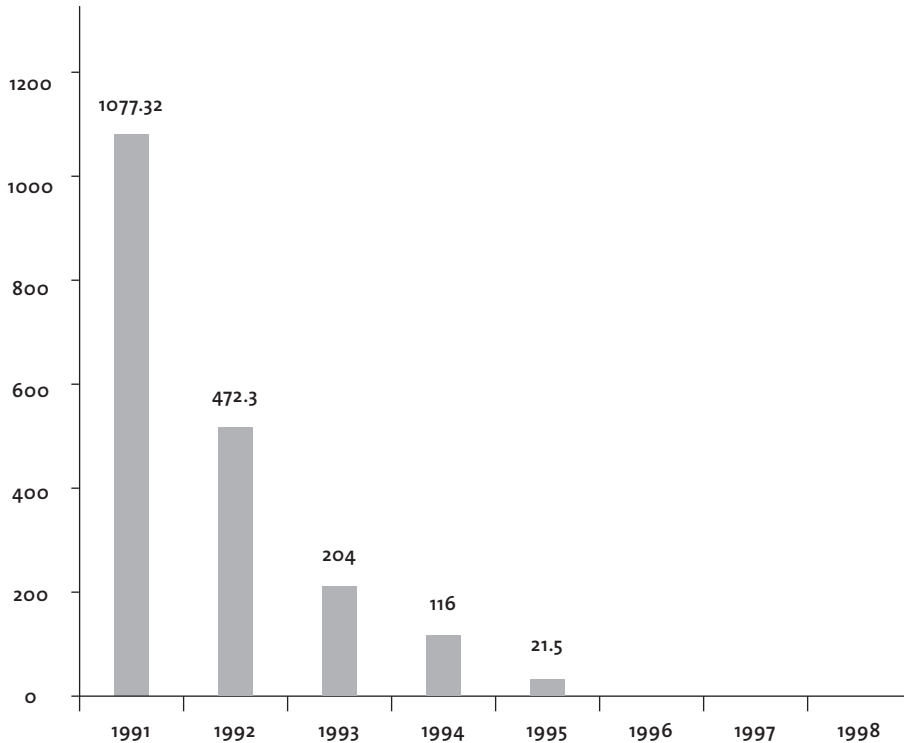
	Total units	Less than 10 years old: Weight as a proportion of the total, in per cent	10–20 years old: Weight as a proportion of the total, in per cent	Over 20 years old: Weight as a proportion of the total, in per cent
Total across the ministry	687,704	48.80	34.67	16.53
AvtoVAZ	38,068	46.12	53.73	0.15
AvtoUAZ (Ulyanovsk car factory)	15,649	24.73	43.61	31.66

The figures show that the proportion of machinery over 20 years old at AvtoUAZ was twice as high as the industry average, and 11 times higher than at AvtoVAZ.

By the end of the 1990s the level of wear and tear of the main stock at AvtoVAZ had fallen by 20 per cent, compared to just 12 per cent at AvtoUAZ. Finding a solution to the wear and tear of its main stock was made easier for AvtoVAZ by the fact that it produced 38.88 per cent of the industrial robots in the country's machine-tool construction sector.⁵²⁸

In connection with this, one must also mention state support, which motor vehicle manufacturers stopped receiving during the 1990s. In 1985, capital investment by the state in the USSR's motor vehicle industry stood at nearly 1.65 million rubles. Of this, 10.3 per cent went to AvtoVAZ, and 1 per cent went to AvtoUAZ. There was, however, a marked downward trend in targeted capital investment in the Russian Federation's car manufacturing industry since 1992. The chart below illustrates that trend:⁵²⁹

Volume of targeted capital investment in 1991 prices (millions of rubles)



The data above clearly show that targeted capital investment fell two-fold or more annually between 1991 and 1995, and that by 1996 it had ceased completely. At the same time, conditions for attracting other sources of investment were not created. As soon as firms in the region's motor vehicle manufacturing sector ceased to be state companies, they were hit by the burden of taxes, all at a time when favorable external conditions had ceased to exist.

The state approached the issue of creating a tax base purely mechanically. In the ever-expanding privatization process, the state losing its ability to control companies turned them into eternal debtors to the budget. The result was a clear shortage of private sources to finance the current production cycle. Of course, the motor vehicle factories' managers could not take all the blame for the situation that unfolded, as they sincerely tried to find sources of investment. Monetarist methods in state

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Calculated according to material in the annual report on the main activity of AvtoVAZ for 1995, 22.

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Osnovnye tekhniko-ekonomicheskie pokazateli deiatel'nosti aktsionernykh obshchestv, proizvodstvennykh ob'edinenii i predpriatii avtomobil'nogo i sel'skokhoziaistvennogo mashinostroeniia za 1995 g., Moskva 1996, 26-30.

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Calculated according to the collection: Analiticheskii obzor proizvodstva avtomobil'noi traktornoj i sel'skokhoziaistvennoj tekhniki proizvoditeliami Rossii, stran SNG i Baltiki, Moskva 1998, 1-2.

policy-making, combined with a policy of filling the budget deficit by creating a market for state debt, led to money being taken away from production. Consequently, barter payments, promissory notes, with all their inherent shortcomings – multiplicity of prices, unreliability of payments – led to single pricing policy at car factories being virtually destroyed. The main consequence, however, was an increasing tendency for wage payments at motor vehicle factories to be delayed. Between 1994 and 1995, wage arrears grew by 270 per cent, standing at 182,997 million rubles.⁵³⁰ The delay in wage payments reached two months. AvtoVAZ's management, led by V. V. Kadannikov, managed to resolve the problem, but with great difficulty. Nonetheless, by the end of 1995 the profitability of successfully operating car factories became comparable to that of foreign corporations. The profitability of goods production at AvtoVAZ had fallen to 9.5 per cent by 1998, while at AvtoUAZ it had only fallen to 29.5 per cent. For the sector as a whole, profitability of goods production stood at 12.9 per cent.⁵³¹ Nonetheless, the profitability of goods sold at AvtoVAZ was 2.5 times higher than the profitability of goods manufactured. This made its advancement on the sales market extremely attractive.

Despite the crisis conditions, AvtoVAZ managed to maintain its production levels, with only a slight fluctuation. Table 2 illustrates the changes in the 1990s: Production of motor vehicle equipment by companies in the central Volga region⁵³²

	1991	1994	1997	Rank in Russia
AvtoVAZ	674,884	528,845	740,5261	1
AvtoUAZ (total)	102,800	99,862	96,443	3
Weight as a proportion of motor vehicle production in Russia (in percent)				
Cars	70.6	73.0	80.6	
Trucks	6.1	10.4	14.3	
Buses	23.7	61.2	56.3	

The data above show that there was a 6.2 per cent drop in production at AvtoUAZ in the given period, compared to a 9.7 per cent increase at AvtoVAZ. Companies in the region maintained their dominance in terms of the total volume of motor vehicle equipment produced in Russia, taking first place (AvtoVAZ) and third place (AvtoUAZ). There was, therefore, a 10 per cent increase in the proportion of cars made by firms in the central Volga region. Overall, four of five cars in the country were made in the central Volga region. The region's share of truck production more than doubled, reaching 14.3 per cent. Proportionally, the production of buses increased by 240 per cent, i.e. every other bus made in Russia was made in the central Volga region. These significant changes took place at a time of a general decrease in the production of motor vehicle equipment in the country. In 1997, the total volume of car production by firms in the region under study was equal to 83 per cent of the total volume of car production in Eastern Europe (Poland, Czech Republic, Romania, Hungary, Yugoslavia and Ukraine).⁵³³ The leading companies were Fiat, Volkswagen, Daewoo, Renault, Suzuki, etc.

Stable work at the motor vehicle factories did not, however, guarantee them a stable financial state. It must be emphasized that the tax burden was comparable to the sum factories could allocate for stabilization and development, even working with zero profit margins.⁵³⁴ AvtoVAZ's credit debts grew by 370 per cent in 1995. Half the debt (47 per cent) was tax arrears (4,197,984 million rubles).⁵³⁵ One result of AvtoVAZ's increasing debt was that, in 1998, a controlling packet of shares was prepared for handover to the state, in payment of debts to budgets at all levels totaling over eight billion re-denominated rubles. Well thought-out help from the state was vital.

The president of AvtoVAZ, A. V. Nikolaev, believed that a reduction in taxes and duties on imported equipment and parts and in the cost of material resources would help to create the conditions for financial stability. This would allow them to move on to new projects for which foreign companies would be willing to provide credit. Development of a sales system could have greatly facilitated this. In 1998, 80 per cent of production at AvtoUAZ was sold directly from the firm, and only 20 per cent was sold through dealers, most of whom also operated within Ulianovsk Region and the locality. On the one hand, this helped to solve the problem of ensuring payment for the products supplied. On the other hand, it narrowed the sales market geographically, created many inconveniences for customers, and was partly responsible for vehicle price increases.

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Calculated according to:
Statistika. Mirovoe proizvodstvo legkovykh avtomobilei v 1997 godu // Mir legkovykh avtomobilei - 1999. Avtokatalog. 6-i vypusk, 1998, 378.

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E. Varshavskaia: Ot raboty zavody dokhnut, in: Za rulem (2) 1996, 4.

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Explanatory note to the annual report on the main activity of AvtoVAZ for 1995, 22.

At AvtoVAZ, practically the whole production was sold through a network of dealers. In 1998 the total number of dealerships stood at 300. The sales market covered by these companies was, however, mainly limited to the Samara region and the Volga region. For example, up to 70 per cent of production was sold in Tol'jatti. This created sales problems for the car factory, as dealers stockpiled to reduce wholesale prices and push up concessions on wholesale production. In addition, AvtoVAZ was not really able to monitor the dealers' financial state. Consequently, their debt to the motor vehicle factory stood at around 1.2 billion U.S. dollars at the end of 1995, i.e. 35 per cent of the annual production. A lack of resources and the artificially high exchange rate of the rouble to the U.S. dollar made it almost impossible for motor vehicle manufacturers in the central Volga region to promote their products in areas of Russia such as Western and Eastern Siberia and the Far East. These regions largely became markets for second-hand Japanese and Korean cars. In the markets of the CIS, manufacturers from the central Volga region were also squeezed out by foreign competitors. The main reason was the foreign models' increased comfort and better price:quality ratio.

The financial crash that occurred in Russia on 17 August 1998 radically changed conditions in the motor vehicle market. The dollar price of cars produced in the region fell to half or a third of what it was before, while the price of imported cars in rubles went up five- or six-fold. The factories tried to make use of this situation to restore and expand their sales and production. This influenced the work at AvtoVAZ particularly quickly. By 1999 it had moved back to a full working week, which it had been forced to cut in preceding years. Development of a sales strategy by the region's companies became the key concept, not only to restore and expand their presence on markets in Russia and abroad, but also to make technical innovations and ensure demand for their products.

A study of the development of the region's car manufacturing sector in the period in question reveals the complexity of the processes involved. Positive changes were achieved. The technology of industrial production was modernized. Thanks to the development of the motor industry, the region remained a promising geographically based industrial complex. The industry facilitated the resolution of acute social and economic problems that had arisen in conditions of a deepening political and economic crisis. Nonetheless, between 1991 and 1998 the motor vehicle industry of the central Volga region's mechanical engineering sector continued to suffer from the following factors, which were the main causes of a drop in production:

- Disintegration processes in the economy after the end of the USSR, and a widening gap between production capacity and the standard of living of people in the CIS;
- Russian motor vehicle manufacturers' loss of sales markets for their products in the CIS;
- Reduced opportunities for companies in the sector to carry out research and develop experimental designs – one of the main prerequisites for competitiveness beyond the CIS – caused by the social and economic crisis that developed during the economic transformation.
- The companies' increased debt, aggravated by the fiscal nature of national economic policy, which undermined the financial basis of production.
- The absence of a national program for industrial development in Russia, which led to warping and increasingly malformed economic structures. In turn, this undermined the stability of production planning in all areas of the country's economy.

In addition, motor vehicle factories made virtually no investment in production in the first half of the 1990s because of the speculative demand for their products. There was, therefore, no improvement in the quality of production. The factories were busy with privatizations and making an inflationary profit by exploiting their rapidly aging production capacity. <<

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Sergei V. Zhuravlev

**Owners and Hired Workers:
on the Social History of AvtoVAZ in the Post-Soviet Period**

In the 1970s and 1980s, the Volga motor vehicle factory was considered the flagship of Soviet mechanical engineering, and an example to follow in terms of its social and labor relations.⁵³⁶ Trade union and Communist Party organizations at the factory were among the largest and most influential in the USSR. The factory was famous for its publicly active workforce, and its high Party and Komsomol (Communist Union of Youth) membership. AvtoVAZ was a typical example of an enterprise dominating the city where it was based. With state funds and its own resources, the giant car manufacturer developed its own social and cultural facilities for workers in Tol'iatii.

During the economic and political crisis in the USSR in the late 1980s and early 1990s, the company's management and workforce showed unity in their determination to free themselves from dependence on the state. The ability to independently control the factory, including profits from sales of the expensive VAZ motor vehicles of which there was a shortage on the domestic market, was seen as the company's route to success. At the start of 1993, the joint-stock company AvtoVAZ was created as the result of a share issue. The Volga motor vehicle factory's 220,000 workers and pensioners received half the shares for free, and became the formal owners of the company. The other half of the shares was bought by daughter companies of AvtoVAZ (a "crossholding share issue" scheme). Consequently, a small group of the factory's new "owners" appointed themselves managers, and then gave account of themselves only to themselves. The factory workers' high hopes for the privatization were replaced by deep disappointment. Pushed aside, and with "privileged" shares that did not give them the right to vote at shareholder meetings, ordinary AvtoVAZ workers felt increasingly like simple hired laborers. Unlike in Soviet times and the "perestroika" period, labor was not treated particularly considerately. The failure to pay dividends on "privileged" shares in the 1990s heightened the impression that the privatization of the factory was a con, and that the shares were meaningless bits of paper.

At the end of the 1980s, as the economic crisis in the USSR deepened, people's material wealth rapidly decreased. Toward the end of "perestroika," AvtoVAZ faced the first serious unrest among its workers demanding an urgent rise in their wages, which had fallen in value due to inflation. Under these conditions, the factory's management was forced to look for its own resources to maintain and provide material support for its workforce. AvtoVAZ signed contracts with agricultural producers for direct deliveries of food to the factory. Just as in the 1930s, a Directorate for Workers' Provisions was set up at the factory, and appointed the task of providing the workforce with what was most vital – enough to eat, clothes, and other consumer products.

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The Volga motor vehicle factory was built in Tol'iatii at the end of the 1960s, as the result of a contract between the government of the USSR and the Italian car manufacturer Fiat.

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Information provided by AvtoVAZ employee A. E. Stepanov, to whom the author expresses his gratitude.

In the difficult years people turned to the land as provider. Plots of land were frequently provided under an agreement with the local authorities. A dacha and kitchen-garden boom began in Tol'iatti. In 1991 alone, the factory workers were given 40,000 plots of land for dachas and kitchen gardens for free, as well as 1,300 plots on which to build cottages. Members of newly re-formed gardeners' associations received credit from the factory to build and fit out garden sheds.⁵³⁷ In 1993 there were 12 kitchen-garden and 38 gardeners' associations operating at the factory. Cars and parts produced at the factory were the main "currency" at AvtoVAZ, and helped the workforce to get through the difficult times. After fulfilling their obligations to the state, part of the factory's production was left over to use for both bartering and selling to the workers at state prices, which had become nominal. Suffice it to say that in 1991, on the eve of "freeing" prices announced by the government, workers at AvtoVAZ were given 15,136 vehicles.⁵³⁸ In many cases, the cars and parts were purchased to be re-sold, thereby topping up the family budget. At the same time, investment in goods with a long shelf life was seen as a convenient way of keeping savings at a time of high inflation. It is important to note that this was, in a way, a form of "social partnership" between the management and the workers, approved by the trade unions, and advantageous to both sides at a certain stage.

Thanks to wages that were relatively high for the region, as well as social benefits and a greater chance of acquiring supplies, AvtoVAZ remained an attractive employer in the 1990s. The total number of workers involved in the main production fluctuated around 110,000. The workforce is distinguished by its stability and high level of education: Thirty percent of all employees had specialized higher or secondary education by 2006. Admittedly, it remains somewhat unclear why such qualifications are taking their time to turn into disciplined labor and quality in the factory's products.

Unlike the world's leading motor vehicle manufacturers, AvtoVAZ has always been a "women's" manufacturer. Overall, the female workers at AvtoVAZ proved to be more efficient and disciplined than the men, and at the same time less demanding about their working conditions. In spite of this, the administration adopted a policy of reducing the proportion of women at the factory based on "economic expediency" (the heavy financial burden in terms of social costs, frequent absence from work due to pregnancy or childcare). In the 1990s, the proportion of female workers fell from about 50 per cent to 40 per cent. Women even now, however, do the most physically difficult, low-qualified, and environmentally "harmful" jobs (the assembly line, stamping and metallurgical production), including jobs that men turn down due to low pay.

A major problem at the factory, inherited from the Soviet era, is a surplus of labor. According to calculations by the management of AvtoVAZ, there are around 30,000 “surplus” workers employed at the factory. Conditions in Tol’iatti mean that cutting such a large number of workers would lead to massive unemployment and social unrest. Attempts by the management immediately after the AvtoVAZ share issue to make significant staffing cuts all at once were blocked by the trade union and the workforce. Afterward, there was agreement on a strategy to gradually reduce staffing, while at the same time reducing the number of new workers taken on. One way or another, the administration started to get rid of three categories of workers: undisciplined workers (for skipping work, stealing or drunkenness), workers who had reached pension age or worked for the number of years required to draw a state pension, and workers with disabilities or who were frequently ill. Between 1991 and 1994, a total of 7,323 people were fired from the factory for skipping work, drunkenness or stealing.⁵³⁹ As for the pensioners and disabled workers, their departure from the factory was “stimulated” by large offers of severance pay.

Factory statistics, however, show that in practice AvtoVAZ’s personnel policy in the post-Soviet period did not always achieve its intended goals. By 2004 the number of workers at the factory had actually increased compared to the start of the 1990s. Toward the end of the 1990s, an inexplicable “liberal attitude” developed toward undisciplined workers, who had only recently been mercilessly fired in the thousands. The number of workers fired for skipping work or drunkenness fell sharply compared to 1992–1993. At the end of the 1990s, AvtoVAZ had practically stopped firing people for theft altogether. For example, only one person was fired from AvtoVAZ in 1998 for theft, out of over 7,500 people detained (!).⁵⁴⁰ All this is evidence of a lack of consistency in the management’s personnel policy.

The post-Soviet history of AvtoVAZ was accompanied by the workers’ fight for their rights. Conflict with the administration, labor disputes and mediation committees, threats of strikes, “Italian” strikes (doing a minimal amount of work), halting the assembly line, demonstrations and other protests became a reality. Some of the protests were planned in advance and agreed to by the workers’ organizations, but many were spontaneous. Two key problems invariably remained in the consciousness of the workforce: first, the amount and timely payment of wages, and secondly, retention of the factory’s extra payments and social benefits.

The AvtoVAZ workforce was one of the first in recent Russian history to ask the administration for regular wage indexing to correspond to inflation, which it did even when the USSR was still in existence. In January 1992 the factory introduced monthly

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Information provided by the Management for economics and planning at AvtoVAZ.

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Explanatory note to the report on AvtoVAZ for 1998, 11. Document provided by A. E. Stepanov.

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Archive of the factory management at AvtoVAZ. Trade union organization materials. f. R-352. op. 5. d. 1576. l. 9-10.

wage indexing at 72 per cent of inflation, which went up to 100 per cent in May 1992. This was brought about largely thanks to the workers actively speaking up to defend their rights. In 1992, almost at the same time as the introduction of inflation-based wage indexing, AvtoVAZ also had to develop special instructions on how to index wage arrears. In June 1992, the wages for May were delayed. Even when the money gradually began to be distributed, the cash brought to the accountants' office was not enough to pay everyone. The trade union committee at AvtoVAZ described the situation as follows in a resolution dated 13 August 1992: "In June and July 1992 the workers were forced to start lining up outside the factory's cash offices at night, but that still didn't guarantee that they would receive their wages in cash. At this time, as a rule, 15–20 per cent of the daily demand for money was satisfied."⁵⁴¹

Labor conflicts and protests at the factory reached their peak in the early- to mid-1990s. At the end of the 1990s the situation had become more stable, thanks to the company's more stable financial state. The administration had learned from its bitter experience of strikes in the first half of the 1990s. Since then, they acted in a coordinated way to defend their interests, and very effectively, overall. The workers on the other hand were largely pushed aside during this period. Their organizations failed to find a common language among themselves, as a result of both the ambitions of their leaders and the clever policy of the joint-stock company's management. The main document regulating relations between the workers and the company administration was, as in Soviet times, the labor contract. The factory's trade union organization retained the responsibility for signing it and ensuring that it was observed. The vast majority of AvtoVAZ workers were members of the "main" trade union, which was part of the Russian trade union of motor vehicle and agricultural mechanical engineering, ASM. In Soviet times, unlike in the West, factory administrators were members of the same trade unions as ordinary workers. Only after the share issue in 1993 did AvtoVAZ's top managers (a few hundred people) leave the trade union that they had shared with the workers. In contrast, however, the middle- and lower-ranked factory administrators (from the workshop managers downward), who depended on the top managers, remained in the same trade union as their workers, basically lobbying for the interests of the company management within the workers' collective.

Under conditions of the determined onset of capitalism, the trade union was forced to literally adjust "on the fly." Its problems partly stemmed from the previous system, which was oriented toward cooperation between the workers and the administration. In the USSR, the trade union committee acted as a "helper" of the administration and Party organization in the areas of labor relations and social and cultural affairs. It was the trade union committee that coordinated issues of job security, as well as public ini-

tiatives to improve production (social competitions and movements for inventors and “rationalizers”). The free members of the trade union committee were not professional trade union workers. As a rule, they were people with an education in engineering, who saw trade union activity as a good “step up” toward further career growth in the administration of production. Therefore, it was not in their plans to damage relations with the new factory owners.

Trade union leaders from the “main” trade union spoke against sharp confrontation with the managers. They convinced the workers to reject extreme methods of fighting for their rights, since strikes involved halting production and would harm the welfare of the factory and the workers themselves. They saw this as a balanced position and ability to reach compromises as a positive service. However, a more radical local trade union organization described it as “sucking up” to the administration. The reputation of the trade union committee also fell in the eyes of the workers when its leaders went to work in the “administrators’ camp.”

In November 1990 an independent workers’ trade union called “Edinstvo” (“Unity”) was formed at AvtoVAZ (it later joined the union of Russian Socialist trade unions, Sotsprof). It distinguished itself by its radicalism right from the start. During the 1990s it was the main factor in disturbing the peace at the factory, organizing a whole series of strikes and other protests. At the start of the 1990s, Edinstvo’s actions were described as hooliganism in factory documentation. The factory management, however, later started to take the organization more seriously. Despite its well-known populism, Edinstvo effectively played an important role in the factory’s post-Soviet history. The very presence of an uncompromising opponent forced the management of the “main” trade union to stand up for workers’ rights more actively, while the administration was forced to weigh the possible consequences of its actions.

It is not surprising that the administration united with the leaders of the “main” trade union in the fight against Edinstvo, which at a certain point only increased the popularity of the latter’s leader, the worker A. S. Ivanov. He was elected a member of Tol’iatti’s City Duma, and from 2004 he became a member of the State Duma of the Russian Federation. The new leader of the disgraced trade union Edinstvo, Petr Zolotarev, unexpectedly almost won the 2001 election for mayor of Tol’iatti, with 41.7 per cent of Tol’iatti residents voting for him. In the city’s Avtozavodskii district, where most of the factory workers lived, he won the majority of the vote.

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 management at AvtoVAZ.
 f. R-352, op. 7. d. 82. l. 24.

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 VA. 29 November 1995, 4.

The different priorities of the new factory owners and the hired workers over how to spend the factory budget remained a significant issue. The majority of AvtoVAZ workers in the 1990s received rubles equivalent to 200–250 U.S. dollars per month as their “official” salary, and voted with both hands for an immediate pay increase. While acknowledging the acute nature of the problem, at trade union conferences and meetings with workers the factory management nonetheless invariably said that profits should not be “gobbled up,” and tried to persuade the workers to prioritize investment in modernizing production and developing new competitive models. It should be added that from the end of 1996, when AvtoVAZ was threatened with bankruptcy, timely payment of taxes and overdue taxes became another issue of primary importance. In essence, timely wage payments and full wage indexing had basically ceased to be an unconditional priority for the factory management. The workers, of course, were not happy that their most important concern was considered by the administration a matter of only tertiary importance in the second half of the 1990s. In addition, under pressure from the administration, an article was added to the labor contract in the mid-1990s that directly linked the workers’ material compensation with AvtoVAZ’s end-of-year results (primarily, with profits achieved). Critics of this amendment pointed to the fact that the company’s results only partially depended on the labor of ordinary workers. Other factors also influence efficiency and profits to a large extent, such as good organization and coordination of work at each stage in the production process by the factory management, as well as national economic policy.

Strictly applying the principle of “collective responsibility” for final results at a company as enormous as AvtoVAZ not only failed to stimulate the ordinary workers to higher standards and greater efficiency, it often had exactly the opposite effect. This contradiction was particularly noticeable in the mid-1990s. In 1996–1997 the workforce increased the number of motor vehicles produced, but at the same time AvtoVAZ’s management insisted on canceling wage indexing, subsidized food and holiday grants, blaming the company’s critical financial state resulting from tax debts. Many workers, such as trade union activist V. S. Postnov, did not understand – “It seems that the more vehicles we produce, and the better and more productively we work, the worse we live (...).”⁵⁴²

The management at AvtoVAZ only fully indexed wages at 100 per cent of inflation for two years, until the end of 1994. At the start of 1995 the company’s management managed to convince the trade union leaders that full indexing was impossible due to the factory’s difficult financial and economic state. As a result, 72.5 per cent indexing was introduced from 1 January 1995. This decision was supposed to be a temporary measure, but it remained in force for the longer term.⁵⁴³

By March 1996, the official wage at AvtoVAZ was two times higher than the average for mechanical engineering companies in Russia. When, however, you take into account that the average wage for mechanical engineers was only 20 per cent higher than the country's official poverty line, the AvtoVAZ workers weren't being paid very much either. Frequently, this money only appeared on paper while pockets remained empty, since in the mid-1990s the administration delayed wage payments for months at a time. One can only be amazed at the great patience of the AvtoVAZ workers. At the beginning of February 1996, for example, they still hadn't been paid for November 1995. It is even more striking that the AvtoVAZ workers still agreed to work overtime at a time of three-month wage delays.

1998 went down in the history of AvtoVAZ not only as the year of the August default, which sharply increased the factory's profitability by the end of 1998, but also as the year when the administration imposed an even tougher policy on wages and workers' social guarantees. Just as in 1996, the crisis situation again helped the administration carry out tough measures to cut wage expenses relatively painlessly. After the default, prices for consumer goods and services jumped sharply. The workers complained that they were unable to feed their families. In accordance with the labor contract for 1998, however, the price index began to be calculated according to a new methodology that was advantageous for the administration –based on the increase since the start of the year. Consequently, the workers' pay rates and salaries only increased by 52.3 per cent relative to inflation in 1998. Calculations by the methodology that had been used until 1998 would have given the workers a more significant raise of 68.6 per cent. Despite isolated protests, this methodology, which was a disadvantage to the workforce relative to 72.5 per cent wage indexing, remained in place at AvtoVAZ.⁵⁴⁴

The second important issue for the workforce was to retain their social benefits and guarantees. These were closely linked to access to the factory's healthcare, nurseries, sports facilities, holiday centers, etc. Maintaining the factory's social and cultural facilities, inherited from the USSR and described as "non-profile assets," weighed heavily on the factory's budget. The solution was to hand over the factory's social activity to the municipal authorities. During the privatization process in 1993, the joint-stock company Avtograd was formed at the insistence of the Russian State Property Committee, and it took over management of 90 per cent of the factory's social and cultural facilities. It was proposed to temporarily share the maintenance costs equally – 50 per cent financed by the factory budget, and 50 per cent by the municipal budget. However, the Tol'iatti authorities couldn't cope with the burden, and Avtograd quickly collapsed. The factory was forced to take many social facilities back under its wing. Later, AvtoVAZ managed to completely or partially get rid of a significant portion of these "non-pro-

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file assets.” Some were taken on by the municipal authorities, while others (hotels and holiday centers, for example, far from being the biggest loss-makers) were handed over to commercial structures created by AvtoVAZ. Some facilities are financed jointly by the factory and the municipal authorities. In recent years the administration has also tried to pass on to its workers part of the maintenance costs for the facilities it still owns.

Low wages mean, however, that the desired results are not being achieved. For example, the factory has good facilities for leisure, sport and health, but they are not used to their full potential. Many workers are simply unable to pay for a healthy lifestyle and real leisure themselves, even when they are given discounts and other factory concessions to buy package tours and memberships. The same goes for food. In the second half of the 1990s, around 60 per cent of AvtoVAZ workers preferred to economize by eating sandwiches brought from home at lunchtime, despite grants provided for lunch at the factory canteen. Generally speaking, the problem of a healthy lifestyle, healthy eating and recovery after heavy labor is an extremely acute one. It is not surprising that there is still a high level of general and work-related illness at the company.

From the mid-1990s, the factory’s budget expenditure on social needs started to fall steadily. Whereas at the start of the 1990s the ratio of expenditure on wages to expenditure on social and cultural facilities was approximately 1:1, by 1997 the social benefits package “withered” by the reform years was one tenth of the factory’s wage expenditure.⁵⁴⁵ This despite the fact that wage expenditure was not high, as mentioned above.

As financing for social programs fell and charges for services became increasingly common, the pressure on wages rose. During 1996–1998, general expenditure on wages and social costs within the cost of production at AvtoVAZ fluctuated between 13.8 per cent and 19.8 per cent. Within this figure, the share of wage expenditure was only 5–6 per cent (to compare: the factory’s expenditure on components and materials was 40 per cent of the cost of the motor vehicles). What is a 5–6 per cent allocation for wages? Is it a lot or a little? It is known that toward the end of the USSR’s existence, when it is generally believed that labor was undervalued, 11–13 per cent of the cost of vehicles at AvtoVAZ went toward wages; i.e. the wage situation got worse during the 1990s. It turned out to be simpler to economize on the company’s workers than to bring order to the dealership network, put an end to the middlemen “feeding” on the factory, or come to grips with the organized crime and corruption that were “milking” the factory. The immediate effect of this policy was obvious, but dubious in the long term. Not one trade union conference went by without sharp criticism of the factory manage-

ment, which was striving to cut the social benefits package and economize on workers' wages. A revealing speech was made by the spokesman of mechanical assembly production and chairman of the workshop committee, A. A. Iakunina, at the factory trade union conference on 26 October 1996 –“Today we are losing one social benefit after another, the most important being housing, medicine, and our wages, which are falling. Our workers will be left in poor conditions by March [1997] due to the removal of wage indexing and food grants. So far we have kept a number of social benefits: we are supporting pensioners, women and certain social and cultural facilities (...).”⁵⁴⁶

The story of AvtoVAZ in the 1990s shows that a system of social and cultural facilities cannot be considered from a purely mercenary point of view. Mechanically dividing the factory's property into two parts –production that brought in profits and the supposedly loss-making social facilities –is a damaging approach. It is a good thing that these inclinations present in part of the factory's management did not fully prevail during the 1990s. From the end of the 1990s, there was a change in ideology at AvtoVAZ. Instead of squeezing the workers and their organizations into bearing fruit, the concept of corporative solidarity and social partnership started to spread at AvtoVAZ. The “main” trade union, which supported corporatism, played an important role in bringing such ideas to reality.

These programs were a compromise between AvtoVAZ's management and the workforce. Just as with the other social programs, the management did not hide the fact that it wanted to “optimize” its expenditure on them. “Optimization” was understood as achieving maximum effect from investing in the workforce, while cutting real expenditure. In practice, factory documentation shows that this sometimes meant shifting an ever greater share of costs onto the shoulders of the workers.

The most important problem, and at the same time the most difficult one to solve, was the housing issue. The factory finally stopped building free housing in 1994. In May 1996 a factory housing construction program for 1996–1999, to which the trade union committee had agreed, was approved. It stated that benefits would only be given to factory workers on the waiting list who needed to improve their living conditions. In 1996, however, that applied to a third of the workers. Benefits recipients had to sign a contract on construction via a financial and construction company “Lada-Dom” (“Lada-House”). Upon signing the contract they made the first payment, and they started to pay the remaining sum after construction was complete. AvtoVAZ participated in the construction by paying for communications to be laid at the factory's expense, and this significantly reduced the cost of housing. However, even these units were too expensive for most workers to afford.

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management at AvtoVAZ.
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One answer could have been factory subsidies with payment in installments. On 5 June 1997, a “Resolution on providing free housing subsidies within the program to build housing for AvtoVAZ workers” was passed.⁵⁴⁷ It envisioned that the factory would give subsidies of 10–15 per cent of the cost of housing to professional workers and young families. But low wages and the need to quickly pay back loans, as well as the limited funds provided by AvtoVAZ for the subsidies, limited the chances of implementing this program. Workers at AvtoVAZ were only able to take out long-term mortgages with a payback period of up to 27 years from 2003. However, optimism was noticeably shaken when it became known that the interest rate on such a mortgage in 2004 was upwards of 15 per cent annually.⁵⁴⁸ On the whole, concessionary schemes to buy housing were torpedoed by the low income of the majority of workers at the factory.

Another acute problem for AvtoVAZ workers was healthcare. In the 1990s, the free healthcare guaranteed under Russian law came to an end for workers at AvtoVAZ, right within the factory gates. AvtoVAZ had a decent medical analysis and outpatient doctor’s center of its own, mostly inherited from Soviet times. On this basis, the factory built a Medical Center for the Workforce. Tol’iatti residents without connections to the factory envied the AvtoVAZ workers, since in the period of radical reforms the city’s healthcare was in a sorry state, and the quality of medical services was significantly higher at the Medical Center for the Workforce. Their envy disappeared, however, when they found out that in cases of serious illness, AvtoVAZ workers had to pay for in-patient treatment or surgery entirely out of their own pocket. Since charges for medical services were significantly higher than wages at the factory, any illness became a serious challenge for family budgets.

The appearance of the medical insurance company ASKO-VAZ in 2000, founded by the factory’s trade union organization, was supposed to solve the problem of in-patient treatment in the city hospitals. ASKO-VAZ began to implement a program of voluntary medical insurance called “Statsionar” (“Hospital”), which covered the cost of hospital treatment. It was financed partly by the workers and partly out of the factory budget. In 2003, a new system was established, whereby the factory paid for medical services via insurance policies, depending on the length of time an employee had worked at AvtoVAZ. The longer the worker had been at AvtoVAZ, the greater the share of the medical insurance policy was paid for by the factory. A new employee could only count on a 20 per cent contribution to his policy from the company, and had to pay the remaining 80 per cent himself. An employee having worked for 10 years at AvtoVAZ only had to pay 50 per cent of the costs; after 25 years’ service it would fall to just 20 per cent.

The third important social program of the “generation,” partially financed out of the factory’s budget, related to pension provisions for those who took well-deserved retirement. Given the miserly size of the state pension, in 1994 the trade union committee and the administration set up a non-government pension fund at the factory. It was made up of regular voluntary contributions from the workers themselves, as well as a contribution from the factory budget, the amount of which was agreed to on an annual basis within the labor contract. For example, in 2003–2004 the company transferred over 500,000,000 rubles to the fund as a grant.⁵⁴⁹

A lot can be learned from the history of the non-government pension fund at AvtoVAZ, which was the first such fund in Russia. In the eyes of the workers, the factory’s management and trade union committee acted as a kind of guarantee for the initiative by their tireless encouragement to participate in the fund. At first, the number of people who wanted to join rose steadily. By summer 1998, around 20,000 workers had signed up. The August default struck like thunder in a cloudless sky. The collapse of the state treasury bills pyramid, in which, as it turned out, the workers’ money had been invested, led to the collapse of the non-government pension fund. When the AvtoVAZ workers discovered what had happened to their money, there was a scandal. The company’s management announced that it would gradually provide compensation for the lost savings out of the factory budget. A model contract was drawn up to restructure the pension fund’s debt to its investors. Nonetheless, the number of investors fell to 5,000 people. From 1999, there was a gradual resurrection of the non-government pension fund at AvtoVAZ. By the start of 2005, it had around 39,000 members. The number of people drawing a non-state pension had reached 5,715 people by March 2005, and the average monthly pension was 419 rubles. With the typical state pension in those years being only 2,000–3,000 rubles, this was a significant supplement.

In a brief conclusion, it should be said that the conflict between the workers and the administration intensified after the share issue and the privatization of the factory in 1993. The new real owners took a harsher approach to the workforce and its organizations, while at the same time taking effective measures to prevent strikes and to “neutralize” the leaders of the workers’ movement. Between roughly 1993 and 1998, the workforce suffered one defeat after another. Wage indexing fully tied to inflation was stopped, and the company’s expenditure on social needs fell year after year. From the end of the 1990s, AvtoVAZ’s management declared a course toward “partnership,” within which propaganda about loyalty to the factory and corporate solidarity increased, and “next generation” social programs were set up. The realization that social issues significantly influence production was

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fundamentally new. It seems obvious that the success of the company's work in the near future will greatly depend on whether or not the idea of social partnership and corporate solidarity remains on paper, or whether it will be implemented in practice. <<

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