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The December 2022 Issue in Brief **Dispatch Central**

The Argonauts ship sinks, but all hands are saved
Ford and VW decided to close down Argo AI, their jointly funded experiment in driverless cars. They are offering all members of the crew jobs in their respective companies. Class act.

Like a tabby cat in a bird cage
Is anyone really surprised by the mess Musk is making of his takeover of Twitter? He didn’t need Twitter to support his other businesses, Tesla and SpaceX. It’s a distraction for him and proving to be a large weight Tesla, with its stock price down 20% since the deal closed on the 28th of October. Classless act.

China on track to take over global car production
China, Inc. showed its hand a few years ago on its goal to capture the lion’s share of battery electric car sales. It controls the entire production value chain and has made significant progress on creating Western sales channels. But what has not been fully appreciated is its objective of capturing the non-electric market, which will be more than one-half of car sold in the coming decades.

Quick Transactions
Amazon mothballs its Scout delivery robot
The company says it’s a cost-saving measure, but since when has Amazon turned away from a promising new technology because it wants to pinch pennies. Either the company is in real trouble, or it could not figure out what it was doing with the little porta-cooler.

California’s most wealthy dodge a tax bullet
Lyft said to the California legislature, if you want our taxis to be electric, you need to pay for it. What better way to raise money than to take it from the rich. That did not go down well with those who would have to pay.

Musings of a Dispatcher

Sidewalks are both very old and relatively new phenomena. The Romans had very good sidewalks along their very good roads, but when there weren’t any Roman soldiers left to take care of the roads and the sidewalks any longer, they stopped being used and then they were forgotten. They became like the wings on penguins. Baron Haussmann, famous for his heavy-handed redevelopment of Paris for Emperor Napoleon III, helped to bring sidewalks back to cities. Wide thoroughfares with wide pathways for walking gave a renewed importance to sidewalks, one that had been forgotten during more than fifteen centuries. However, in fifteen decades, sidewalks have gone from having a place of honor in cities, to being places that are less for casual—or even purposeful—walking, to being overflow spaces for activities that take place on either of their extremities, the streets or the properties that frame them. Maybe it’s not so surprising that it was the empowering of the residents of cities, who discovered they could stop the wrecking balls and steam rollers from tearing down and paving over, which has led to the transformation of sidewalks into activity spaces that are not so conducive to walking.

*The sign on this restaurant that is taking most of the sidewalk and the parking spaces in the street for its outside dining space is **Nostro**, the masculine form of “Ours” in Italian. It seems the owners are taking this to mean anything in sight is theirs. I suggest being careful if you decide to use their valet parking service.*



THE DISPATCHER

Telematics Industry Insights by Michael L. Sena
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Dispatch Central

What Is Impairment?

In accounting, **impairment** is a permanent reduction in the value of a company asset. It may be a fixed asset or an intangible asset. When testing an asset for impairment, the total profit, cash flow, or other benefits that can be generated by the asset are periodically compared with its current book value. If the book value of the asset exceeds the future cash flow or other benefits of the asset, the difference between the two is written off, and the value of the asset declines on the company's balance sheet.

<https://www.investopedia.com/terms/i/impairment.asp>

Ford's BlueCruise

BlueCruise allows for hands-free driving on prequalified sections of divided highways called Hands-Free Blue Zones that make up over 130,000 miles of North American roads. It builds on available Intelligent Adaptive Cruise Control with Stop-and-Go and Lane Centering and Speed Sign Recognition. It allows hands-free driving being monitored by a driver-facing camera to make sure drivers keep their eyes on the road.

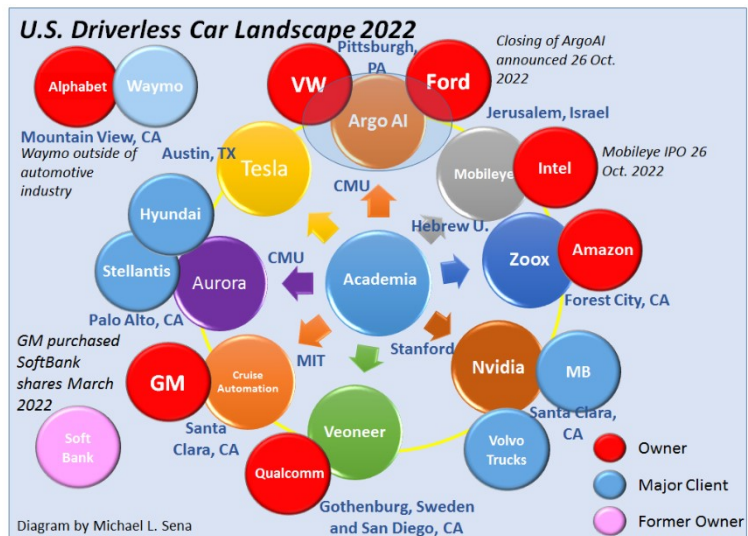
Level 3 refers to the fourth of the IEEE Six Levels of Automation (0-5). In Level 3, a vehicle is able to drive (without the intervention of a human) from point A to point B if certain conditions are met. If necessary, the driver is expected to take control of the vehicle.

The shifting driverless car landscape

THE SIZZLING HEADLINES about the bright future of driverless/self-driving/autonomous cars have cooled, especially after FORD and VW announced on the 26th of October 2022 that their big bet, ARGO AI, had fizzled and would be closed. FORD said it had recorded a \$2.7 billion non-cash pretax "impairment" on its investment in the company (see sidebar) which resulted in an \$827 million Q3 net loss. FORD's CEO, Jim Farley made the following statement:

"In coordination with our shareholders, the decision has been made that ARGO AI will not continue on its mission as a company. Many of the employees will receive an opportunity to continue work on automated driving technology with either FORD or VOLKSWAGEN, while employment for others will unfortunately come to an end...I have the greatest respect for the team at ARGO AI and what they've accomplished, but FORD's mission is to change travel for the many rather than the few."

Farley said that he was excited about bringing in many of ARGO AI's "brilliant people" to help FORD create a terrific Level 3 BlueCruise system that will enable its customers to travel "without their eyes on the road".



So, the ARGO AI chapter closes, and with that, one of the companies on the U.S. driverless car landscape was unceremoniously erased. There are plenty of others, as my diagram above shows, but none of them are doing anything

more than testing, and none of the driverless-only companies (CRUISE, AURORA, ZOOX) are making money from driverless technology. As of late 2022, there are no fully driverless vehicles being sold to customers anywhere in the world. Waymo is operating limited driverless services in Chandler, Arizona and San Francisco, California, still very much in proof of concept mode. LYFT and UBER sold their driverless car operations, unable to sustain investments in them while losing money on their main businesses. TESLA's claims that its 'Autopilot' and 'Full Self-Driving' functions are beta-testable by private drivers on public roads were being questioned by authorities in the U.S. and the EU, and investigations into accidents that occurred while these functions were engaged were initiated in mid-2021.

The auto industry's \$75 billion bet on autonomy is not paying off

This was the headline in an October 24th BLOOMBERG article which hit the air before the ARGO AI announcement was made later on the same day.¹ Whether it's \$75 billion, double or triple that amount is not that important. It's a lot of money that has been thrown at it. The article claims this money has been spent on developing "self-driving technology with scant sign of meaningful revenue emerging from services after all the investment". It then goes on to list all the collateral damage that has been caused by the complete lack of any payback, and the absence of a credible timeframe in which a return on investment might be achieved:

- AURORA's stock price has dropped from \$17.11 in November 2021 to \$1.75 at the close on 10 November 2022.
- AURORA's CEO, Chris Urmson, sent out an internal memo in September listing memos on cost-related matters, including cutting costs, taking the company private, spinning off assets or trying to sell the company.
- INTEL has cut the valuation of MOBILEYE from \$50 billion that it set ten months ago to about \$16 billion.
- There is turnover in the executive suites. CRUISE CEO, Dan Ammann, was dismissed, TUSIMPLE's founder CEO, Cheng Lu, was replaced, Waymo's chief product officer, Dan Chu, left for another job.

Waymo will continue to beaver along, ignoring all of the noise in the vicinity. It is moving ahead with offering its taxi service in Los Angeles, with and without back-up drivers. In spite of money problems, CRUISE will do the same in Phoenix, Arizona and Austin,

Recent Tesla Crashes

U.S. authorities have received reports of 18 fatal crashes involving TESLA vehicles equipped with Autopilot and Full Self-Driving functions. Two fatal crashes, both involving TESLA Model 3 sedans with driver-assist technology, were reported during the Sept. 16 to Oct. 15 period, according to U.S. federal data. Both were in California, TESLA's largest market.

¹ <https://europe.autonews.com/automakers/auto-industrys-75b-bet-autonomy-not-paying>

Texas, while continuing in San Francisco. The *BLOOMBERG* article ends on a cautiously positive note: *"The market getting the timing of autonomy wrong does not mean it will never work. The lesson is that technology as radical as robotic driving was always better off in the incubators of daring venture capitalists, not the portfolios of trigger-happy stock traders."* I can hear the trigger-happy stock traders who read *BLOOMBERG* to provide better accuracy for their shots saying, "Now you tell me!"

Always look at the bright side of life

If you are one of the prospectors digging for gold up in dem der hills, you have to believe you are going to hit the Mother Lode one day. Jim Rowan, VOLVO CARS' relatively new CEO (he took over in March 2022 from Håkan Samuelsson) is hoping to find gold in places where others may have missed it. He has a positive way of talking and on the subject of ARGO's demise; he sees a bright penny behind a tarnished surface. With his Scottish brogue, he could have been a north-of-the-border member of *MONTY PYTHON*. He had his big onstage debut for VOLVO in November when VOLVO introduced its new battery electric version of its flagship, seven-seater XC90 called the—drumroll please—EX90.

He was asked by a journalist about the impact of the closing of ARGO AI on VOLVO's plans for having its cars drive themselves. He said that he saw ARGO's closing as a confirmation of VOLVO's strategy to team with partners to achieve "next-level autonomy" and improved infotainment. By "next-level autonomy" he said he meant building cars that can drive themselves.

"We don't have these massive, sprawling AI (artificial intelligence) teams," he said. *"Our teams are focused on what we think adds value to the car, specifically around the safety stack and perception."*

The questioner continued, saying that FORD's Jim Farley claimed when announcing the automaker's exit from ARGO AI that profitable, fully autonomous vehicles at scale are a long way off and we won't necessarily have to create that technology ourselves. Rowan agreed, saying that the strategy of working with partners has been exemplified by VOLVO's EX90, which Rowan said is hardware-ready for "unsupervised autonomous driving". VOLVO said in January it would make the feature available first to customers in the U.S. state of California before rolling it out in other markets.

Monty Python



The Pythons in 1969

*Back row: Chapman, Idle, Gilliam
Front row: Jones, Cleese, Palin*



Jim Rowan, CEO VOLVO CARS

"We have said we were going to partner up with NVIDIA on the silicon side for core compute technology and QUALCOMM on the infotainment side," said Rowan. "At the same time, we buy in the sensor set, meaning lidar, radars, cameras and so on. Then we write the software and the perception stack that connects the silicon to the hardware. That's our (meaning Volvo's own) secret sauce."

Rowan said this strategy (of dividing up the different tasks) helps VOLVO move faster and remain financially nimble.

"I think our strategy is pretty solid in terms of AI software and core compute technology," he said, "and we will expand those teams, but when we do, it will be in line with the strategy of really focusing on what adds value."

VOLVO is not alone in wanting to get the automated driving systems working as close to perfect as possible within limited operational design domains, mainly highways, before expanding lower class roads and more. This is the approach that is being taken by many of the OEMs. Call it the 'incremental driverless' approach.

GM, et al press pause button on Twitter ads

ELON MUSK BOUGHT TWITTER on the 27th of October. GM, STELLANTIS, and VW GROUP companies have announced that they will stop all paid advertising on the TWITTER platform. "We're pausing paid advertising posts until we have a clearer understanding of the future of the platform under its new leadership," said GM of TWITTER. Many other companies are doing the same.² Musk has admitted publicly that TWITTER has suffered a "massive" revenue drop since he took over. But it's a special situation for the automobile companies because it's the money Musk earned from his TESLA automobile business that made him rich enough to be able to afford to buy TWITTER. It's a complicated predicament for the auto companies. Oftentimes, in order to understand complicated problems it helps to look at them from a more familiar perspective.

Let's say you own a pizza parlor, BUONA PIZZA, in a medium-sized city. Your grandfather, Primo Buona, started it, your father Secondo Buono, took it over from him, and now you, Terzo Buono, are its proud owner. Your specialty is deep-dish pizza with a sourdough crust, using fresh, locally-grown tomatoes and mozzarella imported from southern Italy. One day, a new pizza parlor opens

² IPG MEDIA BRANDS, a large media buyer, recommended on the 31st of October that clients pause their spending on TWITTER while the dust settled.

Incremental Driverlessness

At present, self-driving, highway-only functionality with an alert driver behind the wheel ready to take over when necessary is being sold to customers. Mercedes-Benz started selling its DrivePilot in Germany during the first half of 2022. GM's Super Cruise is sold in a safety bundle that costs \$6,150. When GM surveyed CADILLAC owners in 2020, fully 85% said they would buy it. This does not mean that there will be driverless systems from the car makers on urban roads anytime soon, but if it is enough that it works on highways and there is a market for it, then they will be able to build on it until there are further breakthroughs in driverless functionality, both from the software and hardware perspectives.

Editor



Image Credit: AUTOMOTIVE NEWS, November 23, 2022 – VW Group brands halt Twitter paid activities.

right across the street, BESSER PIZZA, owned by Bert Besser, who moved into town a few months before. He has never made pizzas, but the word is that he won the recipe for his pizzas in a card game. They are flat, round pizzas with all types of toppings.

Time passes. You see that he's getting more customers, but your business isn't affected. More time passes, and one day your ten-year-old son, Quarto, comes home from school wearing a cap with BESSER PIZZA on it. He said that all the kids in the school got a hat and they had slices of BESSER pizza for lunch. His teacher told them that the BESSER pizzas were better to eat because they were made from things that didn't hurt the environment like the ingredients in other pizzas. In the Sunday special section of the newspaper that weekend there was a big article on BESSER PIZZA and an interview with Bert Besser. The article said how smart he was and listed all of his college degrees. He said that he started making pizzas to help to save the Planet from climate change. He said he completely changed the recipe for his pizzas that he used when he started, so it was all his invention.

The following week, there was a notice from the city in the town's newspaper. It said that for every dollar a household spent on buying a pizza from BESSER PIZZA, twenty cents would be deducted from the family's annual property taxes. It said that the city wanted to encourage better eating habits and help stop climate change. For renters, the household would receive an equivalent cash payment. BESSER PIZZA' pizza parlor was now packed from the time it opened until it closed. Bert Besser bought all the buildings on both sides of his pizza parlor and expanded along the entire block. The city gave him an interest-free loan to buy the properties, and has waived real estate taxes on the property for ten years. Bert Besser has become the richest person in town.

One day, when the morning newspaper arrived, you see that it has a new name: *THE BESSER TIMES*, with a big picture of Bert Besser on the front page. He has bought the newspaper with all the money he earned from his pizza business. You ask yourself, "Should I keep buying the ads I put in this newspaper and put more money into his pocket so he can put me out of business faster, or should I stop placing ads and maybe hurt my business even more than it already is hurt?" That's pretty much the dilemma faced by Mary Barra (GM), Carlos Tavares (Stellantis), and Thomas Schäfer (VW), who have all stopped placing ads in TWITTER.

Elon Musk took TWITTER private on the 27th of October at a cost of \$44 billion, installed himself as ‘temporary’ CEO after firing all the top executives, and then dismissed his entire board of directors. He said he bought TWITTER to protect free speech. How does the fact that he builds TESLA cars in China and made a quarter of TESLA’s revenue in China square with that goal? Maybe there’s a special rug in his new TWITTER office under which he sweeps such unwanted topics. Of the \$44 billion he paid, \$13 billion was funded with debt. Just before he closed the deal to acquire TWITTER, he was so concerned about the potential loss of revenue that he penned a letter to advertisers to try to head off a rush by them to the door.³ He said he doesn’t want the platform to become a “free-for-all-hellscape where anything can be said with no consequences”. This does not jibe with his stated promise to rethink its content moderation policies and bolster free speech.

“Fundamentally,” he said in his letter, “TWITTER aspires to be the most respected advertising platform in the world that strengthens your brand and grows your enterprise ... Let us build something extraordinary together,” he said in the letter. (See sidebar)

Advertising made up 92% of TWITTER’s revenue in the second quarter of 2022. If advertisers, like GM, STELLANTIS and VW, abandon ship because of its ownership, the company may not survive. At this point, Musk is trying everything, from starting a subscription-based service to laying off half of the company’s 7,500 employees, to avoid what looks like a high probability result of his meddling: bankruptcy. He fired half the staff in typical Musk manner. He had the IT department turn off the terminated employees’ Internet accounts before they got their letters of dismissal.⁴ In an e-mail to the remaining employees that he had not fired, he told them there would be no more working remotely. They all had to be in the office for a minimum of 40 hours a week. He closed the mail with the same message as the letter to advertisers: *“I look forward to working with you to take Twitter to a whole new level. The potential is truly incredible!”*

On the 9th of November, he sold 19 million shares in TESLA, worth \$3.9 billion. That maneuver sent TESLA’s share price down 7.17%. How does that make his TESLA stock owners feel, who thought

³ <https://www.cnn.com/2022/10/28/tech/gm-pauses-advertising-twitter/index.html>

⁴ Compare treatment of Twitter employees to how FORD and VW treated ARGO AI employees when it closed the company.

Extraordinary, Incredible

Both the letter to advertisers and his e-mail to the employees he had not yet fired reminds me of Musk’s 2006 The Secret Tesla Motors Master Plan (just between you and me), which I wrote about in the [November 2022 issue of The Dispatcher](#). See page 4. He said there and is saying again to both customers and employees: “Join me and we will conquer or save the world, whichever applies to the subject at hand”.

TESLA’s Valuation in Reverse

TESLA’s stock dropped 6.8 percent to \$167.87 in New York Monday, 21 November, the lowest since November, 2020. Trader anxiety was higher due to China lockdowns, putting both production and sales at risk. TESLA also initiated a recall of more than 300,000 cars due to faulty taillights. TESLA’s shares have lost nearly half of their value in less than two months as supply-chain snarls mount, raw-material costs soar and potential buyers feel the squeeze of stubborn inflation and rising interest rates. Hedge funds seem to be shifting to a negative bias on the stock due to risk that there’s been “a loss of focus” on TESLA since Musk acquired TWITTER. “The company’s recent stock decline marks an erasure of several milestones reached during its meteoric rise in 2020 and 2021.”

https://www.autonews.com/automakers-suppliers/tesla-stock-drop-accelerating?utm_source=daily&utm_medium=email&utm_campaign=20221122&utm_content=article6-headline

they were building something together with Musk? Some more dust for sweeping under his TESLA office rug. Musk is probably correct in his thinking that people who have bought shares in TESLA are too scared to sell. That would be betting against Musk, who has shown over and over that he always wins, just like the Former Guy, you know, the one who didn't lose the last U.S. Presidential election but had to move out of the White House anyway.

"This is all gonna end badly."⁵

There were probably more than a few of the 3,750 remaining TWITTER employees who were thinking when they read Musk's e-mail and listened to him at a meeting he had with them: "You know, Elon, you caused all of the problems you have been talking about. We were doing just fine before you decided you had to buy us. You did it for your own sake, to build up your own ego and your own pile of cash to take you to Mars. With our work and all the good people you fired, Twitter was already incredible. Why did you have to butt in a ruin everything we had created?"

China Inc. Global Automobile Monopoly

FOR THE PAST thirteen years, China has been executing on its strategy for doing with automobiles what it has done with steel⁶, [aluminum](#)⁷, high-speed trains, baseball caps (take a look at all the labels in your caps), and many other commodities: produce more than one-half of the world's output. It was easier with the other products. China simply told all the companies that wanted to sell anything in the country to build a factory with a Chinese JV company and hand over all the IP. But, try as they could, the Chinese JV partners to the Western auto OEMs could not figure out the ICE technology. They built ICE vehicles, but they were simply sorry copies of the Western models. So China came up with a brilliant alternative: "We'll make all the electric cars."

As they were working hard on executing this strategy, a new opportunity arose that they had not thought about when they fastened on BEVs. It was to capture the entire automobile manufacturing market—100% of it—because BEVs were not going to replace ICE vehicles everywhere. Not by a longshot. While all the Western car manufacturers started the process of abandoning

⁵ Adam Driver in his role as Officer Ronnie Peterson in the 2019 film, *The Dead Don't Die*.

⁶ In 2021, China produced more than 50% of all steel in the world. EU countries combined for 7.7% to take second place. The U.S. was in 5th with 4.4%.

⁷ See page 16 of the September 2022 issue [The Dispatcher](#): Aluminum makes cars; China makes aluminum

Musk vs. Senator Markey

On Friday, 11 November, Veterans Day in the U.S., Senator Edward Markey (D-Massachusetts) sent out a tweet containing a link to a letter he wrote to Musk, criticizing the new \$7.99 per month Blue with verification subscription. The letter cited a report from the WASHINGTON POST that detailed how a reporter was able to easily create a fake verified account impersonating Markey and called on Musk to address the issue. "Twitter must explain how this happened and how to prevent it from happening again," Markey wrote.

Musk replied: "Perhaps it is because your real account sounds like a parody?" He followed that up with a second tweet about an hour later, saying: "And why does your pp have a mask?" in reference to the Senator's profile picture on Twitter that shows him wearing a face covering.

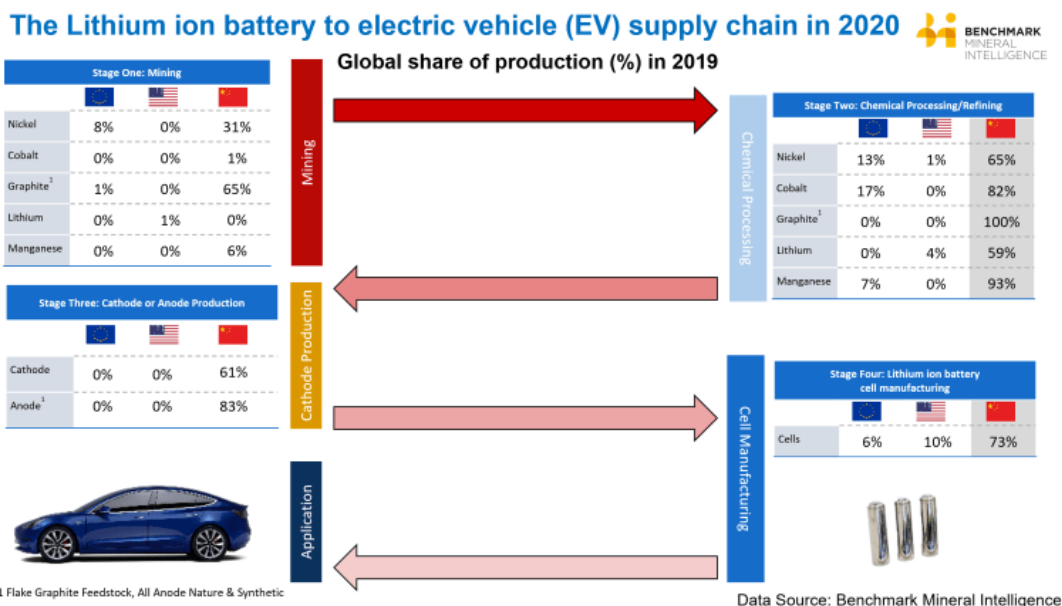
Markey went ballistic: "One of your companies is under an FTC consent decree. Auto safety watchdog NHTSA is investigating another for killing people. And you're spending your time picking fights online. Fix your companies. Or Congress will."

Maybe Musk was operating under the delusion that the Democrats would lose the Senate majority, or maybe he believes his space shuttle service with SPACEX gives him a free pass to disrespect elected officials. He has acted like he is above the law on countless occasions. He has picked the wrong guy to mess with. Senator Markey is on a number of committees that could affect TESLA, including the Commerce, Science and Transportation Committee. Markey has raised concerns over TESLA's full-self driving software several times in the past. If he decides that Musk is a national liability, things will not go well for Musk. The next tweet Musk sends should be an apology. It probably won't be.

their ICE technology which they had perfected over the past century in order to focus their resources on developing the new BEV technology, CHINA INC. began preparations to acquire the abandoned technology.

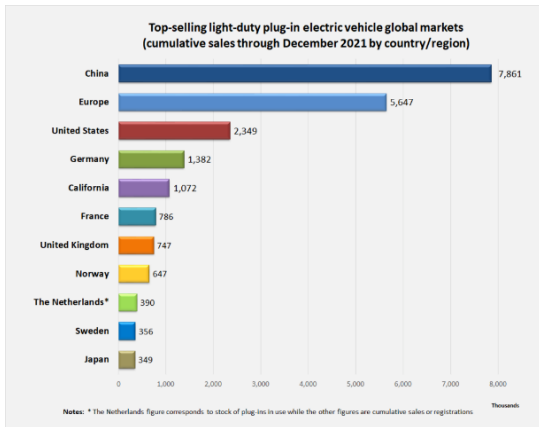
Let's look at the first part of China's overall automobile monopoly strategy. Its goal was to corner the global market on battery electric vehicles (BEVs) by monopolizing both raw materials and the processing of those raw materials, and then encouraging a domestic market for China-produced BEVs. In 2009, the Chinese government adopted a plan to turn the country into the leader of all-electric and hybrid vehicles.⁸ On June 1, 2010, the Chinese government announced a trial program to provide incentives up to 60,000 yuan (\$9,281 at the time) for private purchases of new BEVs and 50,000 yuan (\$7,634) for PHEVs in five cities: Shanghai, Shenzhen, Hangzhou, Hefei and Changchun. The subsidies were paid directly to automakers rather than consumers, but the government stated that it expected that vehicle prices would be reduced accordingly. China has executed on the first part of its strategy in a superb manner. It has involved the following steps:

- Control all the BEV battery raw materials.⁹
- Control the entire battery production value chain. (See the chart below to see the full impact of China's control of battery production cycle.)



⁸ The Chinese government uses the term 'new energy vehicles' (NEVs) to designate plug-in electric vehicles.

⁹ See the October 2022 issue of [The Dispatcher](#) for a full story on China's monopoly on both battery raw materials and battery production



- Build a domestic BEV market to create economies of scale for Chinese car producers. As this chart shows, more battery electric cars are sold in China than anywhere else in the world, and this is because the government has made it a key part of its strategy. ([China, Inc. BEVS](#))

- Buy Western car companies to establish market footholds with brand recognition. VOLVO,

MG, LOTUS, ASTON MARTIN, LEYLAND DAV VANS, LONDON TAXI are names that are familiar to Westerners.

- Start selling battery electric cars made in China in Western markets at prices that are lower than Western companies (See sidebar). VOLVO's LYNK & CO and POLESTAR siblings, along with VOLVO's own China-made electric models, slip easily into Western showrooms. GEELY's ZEEKR, BYD, ZPENG, NIO and EVERGRANDE (which owns NEVS which bought SAAB), will follow.
- Buy sufficient amounts of advertising space in Western news media so that their automobile reporters will write positive reviews of their cars.

There is another part of China's electrification strategy that is not discussed because it is difficult to verify its veracity. That is whether China has been using its so-called 'soft power' to assist those organizations that have been pushing governments to offer tax breaks and rebates for buying BEVs, and to call for all levels of governments to build and subsidize the charging infrastructure. Whether they are doing this or not, China's progress on moving the West toward BEVs received a major boost on the execution of their plan by Elon Musk and his ["You're killing the Planet if you don't buy a Tesla" rhetoric](#), and the State of California (see sidebar), and then all the climate activists that have been lobbying Western governments to set a date for stopping the sale of all vehicles powered in whole or in part by internal combustion engines, which includes hybrids.

On the 25th of August 2022, the CALIFORNIA AIR RESOURCES BOARD (CARB) voted to finalize a rule to implement California Governor Gavin Newsom's 2020 executive order to phase out the sale of new diesel- or gas-powered cars in the state by 2035. The rule requires 35% of new cars, SUVs and small trucks sold to be zero-emissions starting in 2026, increasing to 68% in 2030 and 100% in 2035. In 2022, zero-emissions vehicles have made up about 16%

€10,000 Is a Lot

China's SAIC is selling its BEV MG4 for a price that is around €10,000 less than European brands, VW ID3, Peugeot e-208. Buying market share? "Au contraire mon frere," says SAIC. "We are comfortable with the profit we make on those cars." They are using a lithium iron phosphate (LFP) battery, rather than the nickel-manganese-cobalt, which cuts the battery cost by around 9%. The car has no buttons, no built-in navigation system, cheap plastics. But most importantly, it is built on a platform that it shares with many other SAIC models, achieving large economies of scale.

Electric Handouts

Since 2010, California has allocated more than \$1.84 billion to three climate-related programs for automobiles sold in the state: the Clean Cars 4 All Program, the Clean Vehicle Rebate Project and the Clean Vehicle Assistance Program, according to Air Resources Board data. In exchange, over those 12 years, about half a million Californians have received grants or rebates for buying cars with lower CO2 emissions.

The Clean Vehicle Rebate Project, which receives the bulk of the state's funding, has distributed 478,364 rebates since its launch in 2010, while the Clean Vehicle Assistance program has assisted buyers in purchasing 4,438 lower emissions vehicles since 2018. Clean Cars 4 All, which only serves residents in the state's most polluted regions, has taken 12,800 pre-2007 model year cars off the road since its launch in 2015.

<https://calmatters.org/environment/2022/08/california-electric-cars-rebates/>

of new cars sold in California. As of September 2022, only 18% of current vehicles in California are electric and only 6.3% of current vehicles across the whole U.S. are electric vehicles. Nevertheless, fifteen states have stated that they are prepared to follow California's ban.¹⁰ The EU had made the same 2035 pledge in June.

So, part one of the strategy to capture at least half of the automotive market is going completely according to plan. If the EU and many U.S. states are going to require that all new cars sold by 2035 must be electric, they will have to be produced somewhere. LMC AUTOMOTIVE DATA has estimated that by 2028, China will make more than 8 million electric vehicles, Europe will make 5 million, but North America will produce only 1.4 million.¹¹ CHINA, INC. has already begun the quick ramp-up. In 2021, China shipped two million vehicles overseas, which was 100% more than the year before. 24% of that total were BEVs and PHEVs. It is estimated that it will ship 5 million by 2025, and that 50% of those will be electric.¹²

What's the use of producing them if you can't sell them?

Now to part two of the strategy. With the rest of world's politicians seeming to be falling all over themselves to win the praise of climate activists, why would CHINA, INC. be working to take over the discarded ICE production technology? First of all, because even if half of all cars sold in 2035 are mostly BEVs, the other half will be PHEVs, hybrids and ICE vehicles that will have internal combustion engines. Take a look at global car sales and you can see why. In 2018, at the pre-COVID peak for global car sales, there were 92 million cars sold in the world. The breakdown by country/region was as follows:¹³

- China - 25 million (27.2%)
- United States – 17 million (18.5%)
- European Union – 17 million (18.5%)
- India – 4 million (4.3%)
- Japan – 4 million (4.3%)
- Rest of World – 21 million (22.8%)

China has not committed to stop the sale of ICE vehicles by any date. While the U.S. federal government is being pressured to set a cut-off date for ICE, it has not done so, and in spite of having a

¹⁰ <https://insideevs.com/news/547093/countries-cities-automakers-ban-2040/>

¹¹ <https://capital.com/chinese-ev-makers-aim-to-sell-cars-in-america>

¹² Michael Dunne, president and CEO of ZoZo Go.

¹³ <https://www.iea.org/data-and-statistics/charts/global-car-sales-by-key-markets-2005-2020>

good midterm election, the Democrats will not have enough of a majority within the foreseeable future to be able to pass such a law. Further, there are plenty of countries within the EU that are going to have a very difficult time moving to BEVs (e.g., Romania, Bulgaria, Hungary, Poland, Greece, Italy, and Slovakia), and two that are not at all happy with doing so (i.e., France and Germany).

China is buying up at a huge discount all the ICE capacity that the Western OEMs have convinced themselves they no longer need. Since most of the world will be buying ICE vehicles for a long time to come, whoever can produce them will clean up handily. GEELY'S Li Shufu (just call me Eric) has pulled off another coup to add to his acquisition of VOLVO CARS and LONDON TAXI, his majority position in LOTUS, and major investments in AB VOLVO, DAIMLER, ASTON MARTIN, and PROTON. He has acquired all of VOLVO CARS' combustion engine business and is about to take one-half of RENAULT'S.

How did he do it? First, he performed a perfect bait and switch maneuver. It started in the year prior to VOLVO'S IPO in October 2021. Shufu must have felt it was time to pull out as much money from VOLVO as he could manage. He had bought it from FORD in 2010 at a fire sale price of \$1.8 billion. VOLVO'S profits over the years made the acquisition worth his while, but acquiring VOLVO was never the point for CHINA, INC. He wanted to sell as little as he could and get as much as possible. The IPO went forward with a valuation of VOLVO of \$18 billion, which netted Shifu \$2.3 billion in cash. He gave up only 17.9% of VOLVO.

There were a number of moves that VOLVO made prior to the IPO (certainly at Shufu's direction) to convince investors that it was in TESLA'S league and, therefore, worthy of a high valuation. Foremost was to convince investors that it was a fully electric company. It started back in December 2020 when VOLVO announced that it would separate its engine production in Skövde, Sweden into electric and ICE, and invest \$70 million in e-motor production. The ICE portion would be transferred to a new subsidiary of VOLVO CARS called *POWERTRAIN ENGINEERING OF SWEDEN (PES)*. In March 2021, VOLVO CARS committed to sell only electric cars by 2030. (See sidebar)

On the 8th of July 2021, VOLVO issued a press release: [Volvo Cars and Geely Holding create Aurobay for joint powertrain operations.](#)

Forced Conversion

It was the 10th of November 2022 in the center of Stockholm at VOLVO CARS' showcase auditorium where Volvo CEO Jim Rowan was presenting the new all-electric EX90, VOLVO'S replacement for the XC90. Jonas Fröberg, a journalist for Sweden's leading daily newspaper, was there to write about the event. Fröberg was also present eight years ago, in 2014, at the Paris Motor Show (Mondial de l'Automobile) when he was working for another newspaper and VOLVO'S then-CEO, Håkan Samuelsson, was presenting the second generation XC90, the one that is still being sold today. Sweden's senior motor journalist at the time. Lasse Swärd, asked Samuelsson about the car's future given that electric cars were now starting to be sold. Fröberg wrote that Samuelsson replied: "We don't believe in purely electric cars." So Samuelsson didn't believe in battery electric vehicles—until he did. Now you know how and why the conversion took place.

“Volvo Cars and its parent company Geely Holding have agreed to create a joint venture under the name Aurobay for its powertrain operations, as the companies proceed with their earlier announced plans to merge these into a new, stand-alone business. The new company will be a global supplier of complete powertrain solutions including next generation combustion engines, transmissions and hybrid solutions. Aurobay will initially be jointly owned by Volvo Cars and Geely Holding and as part of the creation of Aurobay, Volvo Cars will transfer all assets in its wholly-owned subsidiary Powertrain Engineering Sweden, including its Skövde, Sweden-based engine plant including the related R&D team, along with its engine plant in China and other relevant assets to the joint venture in the coming months.

The creation of the stand-alone joint venture and the transfer of assets allows Volvo Cars to focus fully on the development of its new range of all-electric premium cars in coming years. The company aims for 50% of its global sales volume to consist of fully electric cars by 2025, while 50% will be hybrids, with powertrains supplied by Aurobay. By 2030, it plans for every car it sells to be pure electric.”

Following the IPO in October, there has not been much news coming out of Gothenburg, VOLVO CAR’s headquarters until this November. On the 8th of November, VOLVO announced that *“in order to achieve electrification by 2030, Volvo would divest 33% of the shares of Aurobay to Geely Holding, thereby fully withdrawing from participation in the development and manufacture of internal combustion engines”*. With this stroke of the pen, VOLVO no longer has any ICE IP or capability. This is the first I had seen anywhere that the JV with GEELY was 67% owned by GEELY. GEELY put in its China-developed motors (...hmmm) and VOLVO put in the motors it had been developing for a century, and GEELY got 67%.¹⁴ **Now it had 100%!** But this is only the start.

At almost the same time as VOLVO was literally handing over its ICE IP, RENAULT announced it would split itself into two companies with two separate stock market listings, one electric (called AMPERE) and the other ICE (called HORSE), AND it would look to setting up a partnership with GEELY. The GEELY partnership would focus on gas and hybrid engines. GEELY and RENAULT would be equal partners in the new JV.¹⁵ The RENAULT announcement didn’t mention anything about GEELY playing with a treasure chest that held all of VOLVO’s family jewels. GEELY (or CHINA, INC.) had already gotten all of VOLVO ICE IP, but it is now in the process of taking over one-half

¹⁴ The very first Volvo from 1927 was powered by an engine built in Skövde.

¹⁵ <https://www.reuters.com/markets/deals/renault-geely-clinch-deal-internal-combustion-joint-venture-2022-11-08/>

of RENAULT's. Since the ICE technology is shared with other Alliance partners, NISSAN and MITSUBISHI, that would mean GEELY would be collecting royalties from them as well, on technology that they had owned.

Not everyone's falling into the hole in the ICE

NISSAN MOTORS says no thanks to the offer to jump into the hole in the ice to join RENAULT and GEELY. NISSAN is holding off in making any commitment to invest in AMPERE until it has assurances that all of the technology that is now controlled by the Alliance will remain solely within the Alliance.¹⁶ I wrote in the [November issue of The Dispatcher](#) about FORD's upbeat tone on the bright future of ICE vehicles. Kumar Galhotra, who leads FORD's ICE division, says "the combustion business isn't wavering", and that the division is spending a lot of time and investment expanding production. STELLANTIS, after declaring that ICE vehicles would die by 2027, announced in October of this year that it was establishing a new business arm to extend the life of ICE vehicles. The division will strip down parts from scrapped vehicles, clean them and sell them with a new warranty of up to fifteen years.

CHINA, INC. is not going to succeed in gaining a full monopoly of all automobile production unless it can knock out the current world leaders: TOYOTA, VW, GM, FORD, HONDA, BMW, MERCEDES-BENZ, STELLANTIS and HYUNDAI. China's SAIC is already in the top ten. VW jumped in the hole when it was caught in an emissions scandal. (I wonder who tipped off the authorities?) GM and M-B are very dependent on China sales, and they have both put an end date on ICE. Hyundai has said it will stop developing ICE technology, but it has announced no plans to stop selling ICE. BMW and TOYOTA are bucking the trend, TOYOTA more vigorously and vocally. It is now being attacked from all sides, especially from environmental groups like Paul Scott's PLUG IN AMERICA. PIA has called for a boycott of TOYOTA because it will not put an end date on selling ICE.

Akio Toyoda, President of TOYOTA MOTOR CORPORATION and the grandson of TOYOTA founder, Kiichiro Toyoda, knows the future of the family business and the entire Japanese automotive business is at stake. He sees clearly what is happening, and he has tried to warn his colleagues as well as world political leaders of the consequences of moving in the direction that CHINA, INC, is taking the

¹⁶ <https://topcarnews.net/geely-wants-to-buy-renaults-ice-division-but-nissan-says-no-s174411.html>

automotive industry. He has no intention of swimming with the fishes without putting up one hell of a fight.

Quick Transactions

Amazon's Scout wasn't ready for prime time

AMAZON ANNOUNCED in October that it would be shutting down tests of its *Scout* delivery robot. The speculators attribute this to a slowing economy and the company's need to pinch pennies. According to a statement by the company, there had been approximately 400 staff working on the project for the past three years. A spokesperson for the company said that Amazon had hoped to create a unique delivery experience, but determined that the program was not "meeting customers' needs". What looks like a cooler on wheels was designed to stop at a customer's front door and pop its top when the correct code was entered. They would replace delivery vehicles with drivers, save the company zillions and reduce greenhouse gases. That was the plan. Jeff Bezos' replacement as CEO, Andy Jassy, pulled the plug. No word on whether Prime Air (uncrewed aerial vehicles) will suffer the same fate.

California's rich breathe a sigh of relief

PROPOSITION 30 on the midterm election ballot in California was intended to raise taxes on those earning \$2 million a year or more by 1.75%. The money, which was estimated to be in the vicinity of \$3.5-\$5 billion, was intended to be used to fund the roll-out of electric vehicles by financing rebates to buyers and the building of additional charging stations. It would also help to finance wild-fire prevention and control. Prop 30's biggest backer was the peer-to-peer taxi company, LYFT (UBER's chief competitor, which did not fund or support Prop 30), which spent \$35 million on the effort. Why? Because it has committed to forcing all of its drivers, who are not rich, to drive electric vehicles by 2030.

It didn't pass, thanks in large part to the Republican Party, the California Teacher's Association, the California Teachers' Union, and the State's Democratic Governor, Gavin Newsom. The educators were concerned that the money would bypass the state's general fund, which helps to pay for education. The governor objected to paying for LYFT's move to electric. However, California has already made it a law that starting in 2030, 90% of all miles driven by taxis of all types have to be in electric vehicles. So far, the wealthy have benefitted mightily from the state's rebates since only the rich have been able to afford to buy BEVs.



Little Teddy's going to have to wait until either he or Amazon's Scout grows up before he gets his lunch delivered by the six-wheeled robot. Amazon has mothballed it.

Amazon says no to ARGO

It was reported in AUTOMOTIVE NEWS that Amazon was close to rescuing cash-strapped ARGO, until Russia invaded Ukraine and the world economy took a nosedive. Support for the investment faded with departures of key staff at AMAZON, FORD and VW, and a deal based on splitting ARGO three ways could not get done.

Rule #1 in Politics: *Don't bite the hand that funds you. It is no secret that Gavin Newsom is the favorite son of the San Francisco elite, like the Getty, Pritzker, Fisher, Wilsey/Traina, Marcus, Swig, Buell, and Guggenheim families. They have backed him all the way from his first entry into politics when he*

Musings of a Dispatcher: City Obstacle Courses

Cities have forgotten what sidewalks are for

THERE ARE TWO objectives that sidewalks must satisfy:

1. Provide a place for individuals who are moving on foot, or using aids for walking, such as wheelchairs, walkers, or strollers, or parents pushing prams, to reach their destinations in safety, avoiding the danger of being run into or over by all types of vehicles, and unhindered by any form of obstacle.

2. Keep the "Shit Off the Shinola"¹⁷ and prevent the gunk and grime in the streets from coming into buildings. That's why sidewalks have curbs and are raised above the street surface.

That's it. If the people in charge of infrastructure in cities act like they don't know this, it is probably because they grew up in a place where there were no sidewalks, rode their bikes or were chauffeured everywhere. If they live in the city where they now work, they probably hop on their bike or scooter or into their car. The Green Party person responsible for ruining Stockholm's sidewalks lives in a suburb south of the city.

When cities like Portland decide that the sidewalks can be used for homeless encampments like the one on the right, we can think they are performing a humane act, but what they have actually done is cause huge problems for other groups of people who have every right to use those sidewalks. When cities fill up sidewalks with planters in the name of beautification, or place sign- or lightposts in the middle of the pathway, or allow signs and outdoor seating on the sidewalks, they are taking part of the sidewalk away from pedestrians and placing obstacles in their paths.



Wheelchair users in Atlanta are suing the city, alleging sidewalk access violations.



Walkers are an immense help to those who need a stability aid.



Construction projects are one of the major impediments to unhindered movement in cities.



Civil rights advocates challenge New York City's failure to make its sidewalks safe for wheelchair users, blind people.



What this issue's *Musings* will try to do is explain why this has happened, why the problem has arisen, so that we can begin to do something about correcting it.

¹⁷ Shinola is a defunct American brand of shoe polish. The SHINOLA COMPANY, founded in Rochester, New York in 1877 as the AMERICAN CHEMICAL MANUFACTURING AND MINING COMPANY, produced the polish under a sequence of different owners until 1960. "Shinola" was a patented name and trademark for boot polish. The suffix '-ola' is a popular component of trade names in the United States. It was popular during the first half of the 20th century and entered the American lexicon in the phrase, "You don't know shit from Shinola," meaning to be ignorant.

Sidewalks: Refuge, Promenade, Chaos Strip



WHEN I WENT to Stockholm for the first of my three-month stays during the period between April 1982 and March 1984, I learned to know the city by walking. I walked the five kilometers to and from the ESSELTE MAP SERVICE offices every weekday from my apartment in Östermalm, using a slightly different route each time, and I spent the weekends exploring all the other parts of the city. I told everyone back home in the U.S. that it was the best walking city I had ever experienced, better even than London. I could say the same thing up to about ten years ago, but then things began to change, and not for the better. Stockholm is no longer a city for walkers. Most cities aren't. In this *Musings*, I am going to discuss why I believe this has occurred. It has to do with exercising power.

Stockholm in 2022



Let's first take a look at the problem. The top photo pretty much sums up the situation in Stockholm caused by politicians' indifferent attitude toward walkers. There is plenty of space provided for bikes, scooters, sidewalk tables, planters, signs and garbage bins, but it's an obstacle course for anyone on foot. Note the sign under the 'one-way do not enter' sign. It says the sign does not apply to bicycles, which now means e-scooters, e-bikes, and mopeds, which definitely do not stop for people crossing the roads, can legally drive in both directions.



In the middle photo, that's a food delivery moped parked in front of the entrance to an apartment building. The delivery person had just driven down the one-way street in the wrong direction and up onto the sidewalk. Note that the electric chargers (masquerading as gas pumps), and their metal ballards (gotta protect those valuable pieces of equipment) have taken about a meter of the sidewalk, and they make great supports for bikes and e-scooters that take more space, as seen in the bottom photo.



What happened to the goal of "walkable cities"? Back in 1972, when I finished my graduate studies in architecture and urban planning, the accepted view on city mobility was that the sidewalks were for pedestrians, and the streets were for cars, taxis, trucks, buses, motorcycles and bicycles. Sidewalks were not extensions of the streets or the adjoining buildings. They were meant to be walked on,

not to be cycled on or for parking bicycles, or to be used as additional seating for restaurants or additional display space for shops. It was not accepted practice to place signs in the path of pedestrians. When people walked on sidewalks, they walked. They didn't stare down at something in their hands and expect the oncoming walkers to avoid them. Even today, having grown up with that mindset, I will stop along a sidewalk if I am on the right side and someone is walking directly toward me, looking at his or her phone, and wake them up (Boo!) before a collision.



Pedestrians were also expected to respect the rights of car drivers and vice versa. In the UK, marked zebra crosswalks were sacred ground, but you made eye contact with the driver who was approaching. You never just stepped into the crossing. You were in dangerous country if you crossed a busy road in between those zebra crossings. In the U.S. and continental Europe, pedestrians could not expect cars to stop automatically at crosswalks unless there were red lights, but if you did have a “walk” signal, you didn't have to worry about cyclists and e-scooterists ignoring the red lights in both directions and sending you to the hospital—or worse—or right turn on reds cutting off your path to the opposite curb.

Sidewalks are both a very old and a relatively new phenomenon. A sidewalk is a paved walk for pedestrians at the side of a street. It is claimed that the first sidewalk was built around 2000 B.C. in Anatolia, in modern-day Turkey. That's certainly possible, but there is clear evidence that the Romans incorporated pedestrian footpaths in their cities, like Pompeii in the top photo right. They called them semita, which is Latin for 'path'.

Sidewalks went the way of the Roman Empire after its fall. If they existed, they functioned more as narrow barriers to prevent rain water and human and animal effluent from flowing into ground floor shops and dwellings. In most cities, streets looked like Rue du Jardinnet in Paris (bottom photo) when Emperor Napoleon III gave Baron Haussmann the task in the middle of the 19th century to organize and carry out the massive urban renewal program of Paris. Haussmann tore down large areas of the city and replaced the cramped streets with wide boulevards flanked

The Sidewalk



by spacious sidewalks as seen in the Pissarro painting of Boulevard Montmartre in 1897. The Cubitt brothers' Pimlico and Belgravia (second photo) developments in London were most likely an inspiration to Haussmann. They were both motivated by improving the health of city dwellers by enhancing the flow of traffic and fresh air, and separating pedestrians from vehicular traffic. They also built sewer and water systems that kept the effluvia from the streets. This became the model for cities everywhere. Sidewalks today look more like the two streets in Brooklyn in the third and fourth photos. Chaotic.

At the core of today's sidewalk chaos is a David and Goliath story

City sidewalks as the domain of humans and their accompanying four-footed friends were gradually transformed into multi-use spaces between the edges of buildings and the street curbs (and even beyond). People have appropriated sidewalks for whatever they believe is appropriate—for them (the people, not the side-



Camille Pissarro, "Boulevard Montmartre," 1897



walks). The appropriators can be the people who own or rent the adjoining building, or they can be sojourners. They can even be one of the city authorities, as the Stockholm example with electric chargers and bicycle and e-scooter stands shows in the sidebar on the first page of *Musings*. This

transformation began when people who were not in a position of **power** started to believe that rules or accepted practices—even laws—that were established by people who were in **power** were fungible, and that anyone could define new situations to which these rules/practices/laws should adapt. It has its roots in the '50s and '60s, and gained momentum in the '70s—POWER TO THE PEOPLE—and became a full-fledged movement in the '80s and '90s. But, it did not start with the Baby Boomers (1946-1954).

It has become a cliché that everything changed when Baby Boomers came of age, as if we had been working on the plan since birth and decided to spring it on the world when we turned eighteen. In the first place, that over generalization is giving my generation too much credit. Second, it completely ignores the importance of our parents' generation. With good reason, they are called the **Greatest Generation** (1901-1927). They were born into a period of extreme turmoil and global upheaval. The first half of the 20th century consisted of massive immigrations and emigrations, two world wars, the biggest stock market crash in history and the Great Depression. Oh yes, and there was also the Spanish Flu that killed 500 million people on the Planet, more than five times the

number of people who died in the two World Wars combined. The Greatest Generation had been buttoned down and hemmed in for the first half of their lives, following orders and not making trouble. Politicians (or dictators or kings) and business leaders made the decisions on what happened where and what went where. When the Second World War was over, my parents' generation picked up where they had left off in order to rebuild what had been destroyed, and they expected their children (i.e., my generation) to toe the line the way they did, at least at first.

Then something began to happen to our parents. They stopped letting themselves be pushed around and started pushing back. The aging and death of their parents, who had made and enforced the rules, was a major reason for the transformation. However, TV played a big part in their makeover. Lucile Ball in the *I Love Lucy* TV sitcom, which first aired in 1951, was a typical *Rosie the Riveter*¹⁸ leftover from the War who wasn't going to let anyone get in the way of her family's march to fame, fortune and happiness. She would fight city hall if she had to. There were a dozen-or-so TV family comedies, such as *Father Knows Best*, *The Adventures of Ozzie and Harriet*, *Leave It to Beaver*, and *Dennis the Menace*, which portrayed the thoughts and actions of parents and children from their respective perspectives, providing those of us who watched them the view from both sides of the fence that divided earlier generations. The main message was that you weren't right or wrong because of your age or your position.

A tug of war occurred in the 1950s and '60s over who had the right to decide what was built and what was torn down between two of the most unlikely foes, Robert Moses and Jane Butzner Jacobs. It serves as a metaphor for how normal people, who were neither wealthy nor influential by matter of birth, represented by Jacobs, began to stand up to steam rollers, wrecking balls and bulldozing approaches to urban planning promulgated by people with power, exemplified by Robert Moses.

Robert Moses was born in 1888 in New Haven, CT into a wealthy family. His father owned a department store in New Haven. When Moses was eleven, his father sold the store, retired from business, and moved the family to Manhattan. Moses lived in New York for the rest of his life except for the periods when he

¹⁸ *Rosie the Riveter* is an allegorical cultural icon in the United States who represents the women who worked in factories and shipyards during World War II, many of whom produced munitions and war supplies. These women sometimes took entirely new jobs replacing the male workers who joined the military.

was obtaining his undergraduate degree at YALE and a Master's degree at OXFORD. He returned to NYC to complete his Ph.D. in politics at COLUMBIA. His chosen field was government, but not politics. He became Chairman, Commissioner or President of a dozen public works, transportation, and parks authorities in New York State and New York City beginning in the early 1920s and extending into the early 1970s. It was under his direction that Jones Beach State Park, the New York State Parkway System, the Triborough Bridge and other bridges and tunnels, Lincoln Center, the United Nations headquarters, and massive urban renewal



projects were completed. By 1959, he had overseen the construction of over 28,000 apartment units which were mostly built with a "Housing in the Park" concept exemplified by Le Corbusier's *Unite d'Habitation* principles.¹⁹ Moses was to New York City what Baron Haussmann was to Paris. He was the orchestrator of those with money and power, including the banks, labor

unions, contractors, bond underwriters, insurance firms, the great retail stores, and real estate developers. He was the **Power Broker**.²⁰

Jane Butzner was born in 1916 in Scranton, PA. Her father was a physician, her mother a nurse. Unlike her brother, who graduated from college with high honors and became a successful lawyer and judge, Jane was an uninspired high school student. In 1934, in the middle of the Great Depression, she and her sister moved to New York City. They must have been bankrolled by their parents because Jane took courses at *COLUMBIA UNIVERSITY* without being enrolled, and worked part-time as a stenographer and freelance writer. Her first full-time job was as a secretary for a trade magazine, for which she then became an editor. She married an architect, Robert Jacobs, in 1944. In 1947, they bought a



Unite d' Habitation (1947-1952)



Jane Butzner Jacobs was born in Scranton, and lived in Green Ridge, close to where President Biden grew up. But the family moved to a bigger house on Monroe Avenue in the Borough of Dunmore (above). She attended schools in Scranton, and graduated from Scranton Central High School, one of two at the time. Your editor's father and his siblings, contemporaries of JBJ, graduated from Scranton Technical High School. Your editor attended West Scranton Senior High school from 7th through 12th grade. It started as a junior high school, but became a junior and senior high school after WWII.

¹⁹ Completed in 1952, the *Unite d' Habitation* was the first of a new housing project series for Le Corbusier that focused on communal living for all the inhabitants to shop, play, live, and come together in a "vertical garden city." High-rise slabs sitting in a park landscape was the model for post-WWII housing projects all over the world.

²⁰ The Power Broker: Robert Moses and the Fall of New York was a Pulitzer Prize-winning novel written by Robert A. Caro, published in 1974, is an unauthorized biography of the man that focuses on how Moses learned to acquire and wield power in order to achieve his goals.

building, 555 Hudson Street in Greenwich Village, with apartments above a shop which they renovated into their dwelling, and she landed a job as associate editor of *ARCHITECTURAL FORUM* in 1952 (shown right).

Jacobs began writing about urban planning from the standpoint of community destruction and the lack of concern for the lives of the people displaced by redevelopment. She focused on commu-



nity life on the street and the apparent total lack of concern for the inhabitants of either the displaced or the new dwellings. By attacking the establishment with her pen and her tongue, in spite of the fact that she lacked even a modicum of academic qualification in the field of those she was criticizing, she became a force for change. In 1956, she was a

hasty stand-in for the editor of *ARCHITECTURAL FORUM*, Douglas Haskell, for a lecture at HARVARD UNIVERSITY. Lewis Mumford was there. She used it to deliver her own views on urban planning. *“Respect in the deepest sense strips of chaos that have a weird wisdom of their own not yet encompassed in our concept of urban order,”* she urged. *FORTUNE* magazine picked up the theme and printed an article in 1958 titled “Downtown Is for People”. This was her first criticism of Robert Moses. It caused an uproar among the urban planning and architecture establishment. More was to come.

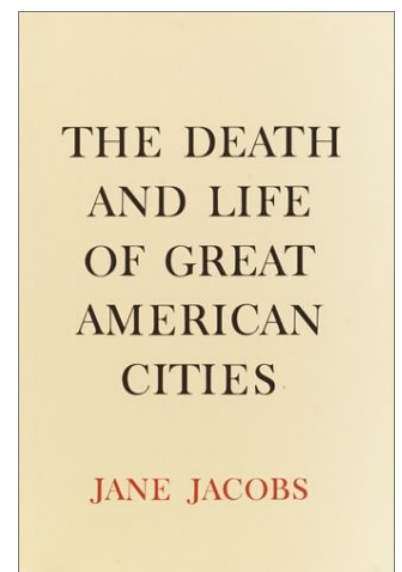
In 1958, the ROCKEFELLER FOUNDATION awarded Jacobs a grant to produce a critical study of city planning and urban life in the U.S.²¹ She worked with a team at THE NEW SCHOOL FOR SOCIAL RESEARCH and spent three years researching “how the design of cities might better serve urban life, including cultural and humane value”.²² In 1961, RANDOM HOUSE published the result of her research in the book: The Death and Life of Great American Cities (see sidebar). It was highly critical of the urban planning profession, which she labelled a “pseudoscience”. It sent Robert Moses through the roof. He called it “intemperate and also libelous” in a letter to the publisher of RANDOM HOUSE, who had mischievously sent him a

²¹ From the mid-1950s to the mid-1960s, the Foundation's Humanities Division sponsored an "Urban Design Studies" research program, of which Jacobs was the best known grantee.

²² This was part of her brief from the Foundation.



This is the building at 555 Hudson Street in Greenwich Village where Jane and her husband Robert lived between 1947 and 1968 when they left for Toronto, Canada.



I do not recall when during the course of my undergraduate studies that I read this book. While many of my professors were strict modernists who most likely eschewed everything related to Jane Jacobs, Robert Geddes, who became Dean of the School of Architecture in 1965, believed in education, not indoctrination. Many of us would be deeply influenced by this book, and it would have a defining effect on our approach to our lives, both professionally and personally.

copy. It set the stage for the major battle between Moses and Jacobs, one that had begun between them in 1955.

When they realized they could fight city hall and win

Before Jane Jacobs had become famous through her book, she was a working mother (keep the word ‘mother’ in mind) of three. In 1955, she received a flyer from the *Committee to Save Washington Square Park*. Moses had decided that what the 10-acre greenspace in the middle of Greenwich Village needed was a four-lane highway right through it. Moses was used to having his roads built where he wanted them built. With Jacobs acting both as strategist and media liaison, the *Committee*, with help from some heavy-weight supporters like Former First Lady Eleanor Roosevelt and Carmine DeSapio, NY Secretary of State, who both lived there, they managed to convince the city to drop the plan. At the critical hearing for the highway, Moses said before he left in a huff: “There is nobody against this—**NOBODY, NOBODY, NOBODY** but a bunch of...a bunch of **MOTHERS!**”²³ The MOTHERS won.

Goliath met David in the Valley of Elah around 1000 B.C. The battleground for Moses (Robert, not the other Moses) and Jacobs was Greenwich Village in 1962. They did not meet face-to-face, and, unlike Goliath, Moses lived to fight another day (but not for long). Although she won the battle, she left the field wounded. The city’s Housing and Redevelopment Board had announced a plan to declare a large portion of Greenwich Village south of Washington Square Park as “blighted” so that it could tear it all down and erect high-rise housing and commercial buildings. Jacobs became co-chair of the *Committee to Save the West Village*. While they were fighting and winning this skirmish, another road plan surfaced, the Lower Manhattan Expressway (pictured right), this time with ten lanes that would go through Greenwich Village, SoHo and parts of Chinatown and Little Italy, to be built with Interstate highway funds. It had Moses’ name all over it. The plan called for the demolishing of 416 buildings that housed 2,200 families, 365 retail stores and 480 other commercial establishments.

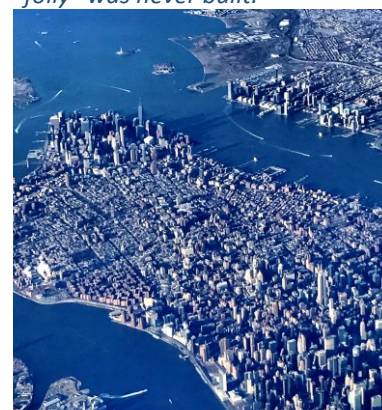
The battle dragged on as those with power closed ranks. In 1965, new proposals were put forward to meet some of the community’s objections, but a ten-lane highway, whether it’s built above, below or on the ground, is going to have a major effect on everything in its vicinity. The community would not give up, and Jacobs



Washington Square Park in 2016



*An artist’s sketch from 1959 of the proposed 10-lane Lower Manhattan Expressway. The **Lower Manhattan Expressway** was an effort to tie up the loose ends of local roadways by extending Interstate 78 from the Holland Tunnel to the Manhattan and Williamsburg Bridges. In between where those 416 buildings the city found dispensable. Jacobs called the project “monstrous and useless folly”. You can see in picture below that the “folly” was never built.*



²³ <https://www.theguardian.com/cities/2016/apr/28/story-cities-32-new-york-jane-jacobs-robert-moses>

became more determined than ever to stop the inevitable destruction the highway would cause to Greenwich Village and the surrounding communities. At a public hearing on the project, she led the community protesters on to the stage where the officials were sitting, and the stenographer's record of the meeting was destroyed. Jacobs was arrested and spent a night in jail on the charge of inciting a riot and criminal mischief. She faced a prison sentence. It never came to that. It took another four years, but in the summer of 1969, then-Mayor, John Lindsay, declared the highway project dead. Jacobs and her family had already picked up stakes in 1968 and moved lock, stock and barrel to Toronto, Canada. The city became her adopted home, and Canada became her adopted country, eventually as a citizen.

Everything in its place became a place for everything

The faceoff in Greenwich Village was over who had the power to control the lives of people living and working in a community, the people or city hall. It was not specifically about the community's sidewalks. Nevertheless, from that point forward, city halls everywhere in the U.S. began to change their attitudes and practices concerning urban redevelopment and both what they did and did not do in their cities' communities. The fact that this attitude shift coincided with national legislation on voting rights and environmental protection was no coincidence.²⁴ In the 1970s, exercise of control over public spaces by individuals and community organizations, and the simultaneous abrogation of the responsibilities city authorities had assumed for the care and maintenance of those spaces, began to be seen. This had both positive and negative consequences.

Let's start with the positive results. Tragedies of development like Pruitt-Igoe in St. Louis, pictured right, built in 1954, began to fade. Architects and urban planners started to work more closely with the eventual residents of low-cost housing replacements in cities to create low-rise, high-density housing which offered a substitute for the high-rise model that had dominated public housing in the 1950s in the United States. Second, ploughing multi-lane highways through the centers of cities were erased from the palette of options, even as thought exercises. Most importantly, Jane Jacobs made us think about the importance of 'place' as more than just buildings

Quitting New York

Jane and Robert Jacobs had three children, two of whom were sons eligible for the military draft. The Jacobs opposed the Vietnam War, so combined with the simple fact that Jane Jacobs grew weary of fighting city hall, Jane and Robert decided to move to a city that provided work opportunities for both of them and was in a country that would not send their sons into a war. Toronto, Canada appears to have been a good choice for them.



Pruitt-Igoe was the type of development the residents of Greenwich Village were fighting against. It was supposed to be an improvement over the tenement housing it replaced, but for various reasons, living conditions in Pruitt-Igoe began to deteriorate soon after completion. By the middle of the 1960s crime and vandalism were rampant, it was poorly maintained, and few people wanted to live there. Attempts to reverse the decline failed, and in 1972 several of the buildings were demolished by explosives in a widely televised event. By 1976, all 33 buildings had been taken down.

²⁴ See [September 2022 issue of The Dispatcher](#), page 10.

and the relationships between those buildings and the space surrounding them. Place is comprised of the people who occupy and use the buildings and the space, and the wholesale demolition of neighborhoods destroys both the cultural history of the place and the lives of those who occupied and used it.

Jacobs believed that sidewalks played three primary roles in neighborhoods: safety, contact, and the assimilation of children.²⁵ As Richard Wooton states in his analysis of Jacobs' ideas on sidewalks, "She believed that people on the street walking, talking, playing, sitting, watching and working all made for a viable and safe street. The interactions and constant activity produced a place with a high degree of social contact for residents, children and business owners as well as pedestrians passing through neighborhoods". For these same reasons, she was not in favor of the removal of vehicular traffic from city streets and their pedestrianization.

"The sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity."

Jane Jacobs, The Death and Life of Great American Cities

For these same reasons, she was not in favor of the removal of vehicular traffic from city streets and their pedestrianization. "Automobiles are often conveniently tagged as the villains responsible for the ills of cities and the disappointments and futilities of city planning," she wrote in Death and Life. "But the destructive effect of automobiles are much less a cause than a symptom of our incompetence at city building."

It is likely that Robert Moses saw his defeats at the hands of "The Mothers" as the beginning of the end of bulldozer-based urban development. But I do not believe that either Moses or Jacobs could foresee how the combination of social change and economic instability in the 1970s would affect the city they both loved, and cities everywhere. In her 1956 HARVARD lecture, Jacobs had warned us of the negative possibilities on the other side of the scorecard. The "**strips of chaos**" she had said should be toler-

²⁵ https://www.canr.msu.edu/news/jane_jacobs_ideas_on_viable_cities_more_relevant_than_ever

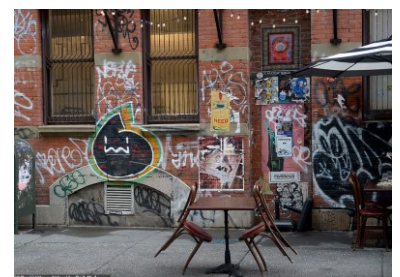
ated grew in size and number. A major sign of the chaos was graffiti. Graffiti began to show up throughout the New York City subway system and then spread to the entire city in the late 1960s and 70s. It apparently began in Philadelphia,²⁶ where I first experienced it, but it was on and inside the New York City subway cars that it exploded into first a local then a national and eventually an international phenomenon.

When graffiti started to burgeon in the New York metro system in late 1960s and 1970s they added to a general feeling of insecurity for some of the citizens. Having scribbles freely applied on public property with apparently no punishment seemed to contribute to the overall sense of lawlessness that plagued the metropolis in this period. To understand better the appearance of graffiti on metro cars, it is important to comprehend the cultural climate that surrounded it as well. New York in the 1970s was by many considered a dangerous place. As Edmund White explains: “the city was edgy and dangerous, ...women carried Mace in their purses, ...even men asked the taxi driver to wait until they’d crossed the 15 feet to the front door of their building.” Living in the climate of economic recession that had hit particularly hard the Big Apple, where 500,000 manufacturing jobs were lost leaving over one million households dependent on welfare, the urban reality was grim and hopeless. What were the kids to do in such circumstances?

<https://www.widewalls.ch/magazine/train-graffiti>

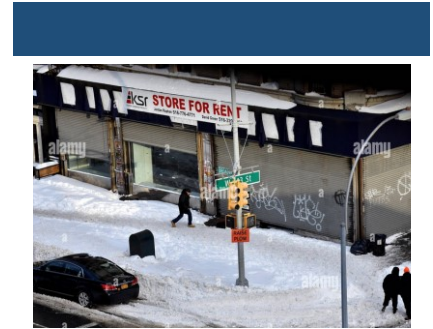
The question at the end of this statement, what were the kids to do in such circumstances, is telling. They could have done what the kids had done in previous hard times: obey the rules. Why weren't the rules enforced? Could there have been a strong sense of spite on the part of the city officials and police. “Screw ‘em. If they want to control their neighborhoods, let them police them.” Lots of eyes on the street can be a positive force for increasing the feeling of safety for those who live in or visit a community, but if bad things are happening, whether it's spraying walls with graffiti, selling drugs, or mugging, the people who own those eyeballs must be able to contact the law enforcement authorities who will then take the appropriate action to remove the offenders. Civilians should not be expected to intervene on their own. Unfortunately, many neighborhoods became no-go zones for the public safety teams, including police, fire and ambulance crews. Streets, sidewalks, parks and other public spaces were taken over by gangs that used them to carry out their illicit businesses. This con-

²⁶ <https://www.milrose.com/insights/the-surprising-history-of-graffiti-on-nyc-subways-cars-and-tunnels>



tinued in New York until the mid-1990s when the city's government decided that unless they started enforcing the laws everywhere, they would not have a city to run at some point in the not-too-distant future.

Then there was the gradual oozing out of the inside activities to their adjoining sidewalks and the ignoring of responsibilities for keeping the sidewalks clear for pedestrians. Every city has a 'sidewalk usage guide', like the one for New York City.²⁷ It explains in clear terms what responsibilities a business owner has for the entire sidewalk in front of his or her establishment, irrespective of whether a portion of the sidewalk is owned by the city or the building owner, and whether it is the building owner or a renter operating the establishment. The sidewalk should be cleared of snow (which the sidewalk in the photo to the right clearly is not); there should be no signs, waste bins, equipment (like ice machines), or merchandise displays extending beyond three feet from the building's edge blocking pedestrian traffic. If one building owner isn't doing his job, it is easily addressed by the authorities. If everyone stops shoveling their sidewalks because they don't believe it's their job to do it—even though it is—there is very little a city can do. So they don't do anything.



A sidewalk at the corner of Broadway and 143rd Street in New York that has not been cleared by the building owner.

A bicycle, e-scooter or a delivery moped parked in front of one of the restaurant extensions to the right would send pedestrians into the street. This cannot be allowed by any city code. Isn't anyone at city hall looking at this? How could they allow such violations to occur? Could it be that those city officials are the ones parking their bikes and e-scooters, or they are the ones ordering food that needs to be picked up by the drivers of those delivery mopeds? The



COVID-19 pandemic beginning in the spring of 2020 caused desperation among city officials. Outside dining and vending became the only way for businesses to continue to operate without violating restrictions on indoor gathering. Sidewalks were appropriated as an emergency measure to allow the business to continue in operation. Once the restrictions were lifted, the extensions stayed, along with the bikes, scooters and delivery mopeds.

²⁷ <https://www1.nyc.gov/nycbusiness/article/sidewalk-usage-guide>

Hausmann, Moses, Jacobs, and Chaos

Sidewalks we know in those parts of the world's cities which were built after **Baron Haussman** had his way with Paris in the middle of the 19th century had no other purpose than to serve as surfaces for walking. They were wide to allow many people to use them at the same time, whether they were walking to work or to the shops, or taking a leisurely stroll on a temperate Sunday afternoon. They were surfaced so that women in delicate shoes could walk on them without tripping, and they were clearly separated from adjacent roads to prevent vehicles and pedestrians from inadvertently meeting. Haussmann's idea of buildings was to serve as a backdrop for those who passed them on foot or in vehicles, and both sidewalks and boulevards should be as wide as possible so that as many people as possible could appreciate the views.

Robert Moses did not dream of building sidewalks. He dreamt about building multi-lane highways, long tunnels, majestic bridges, tall buildings in parks. He did not really care what happened inside the buildings, and neither did the architects and engineers who helped him build his dreams. He did not really care who drove on the roads that would crisscross Manhattan and the other boroughs. They were people going somewhere, and where they started and ended their trips was not his concern. They needed to move, and he would make it possible for them to do so. If all else failed, they could always use the old-fashioned subway, built in a bygone era.

Sidewalks were central to **Jane Jacobs'** thinking about cities. Sidewalks were where the life of a city played out. To the extent that she thought about buildings, it was to suggest that they be designed so that the people inside could have ample opportunities to see what was happening outside on the sidewalk and street. To the extent that she thought about the planning and design of the pattern of streets, it was to create short blocks so that vehicles would have to stop frequently and therefore would not be able to travel at high speeds. It wasn't walking that Jacobs saw as the purpose of sidewalks. It was the interaction of people inside the building adjacent to the sidewalk with those people who happened to be on the sidewalk. It was as if the sidewalk was a stage on which the play of life was occurring; those outside were the actors and those inside the were the audience.

And today? What does Chaos see as the purpose of sidewalks? Does Chaos have a purpose for sidewalks, or are they simply un-



There is nothing dramatic about this city sidewalk, except that the surface is smooth and swept clean. There are no hindrances along the pathway, no stray bicycles or e-scooters, no planters or signs, no electric chargers masquerading as gas pumps. The walker is looking up—maybe at a bird she heard singing—not engrossed in her smartphone. No chaos in sight.

I once lived on a street like the one above. It is shown below: Moreton Place, Pimlico, London. It's the one with the grey door on the left. That was in 1972/73. This is a recent photo. The sign pole with the bicycle were not there back then. No hinders that I recall. The car in the photo is a Mini, which is owned by BMW today. Mini was part of British Leyland in 1973, and there might have been one car that was a Mini parked on the street. Few people who lived in London owned cars in 1973. Two of us lived on my Greater London Council annual salary of £3,000. People walked.

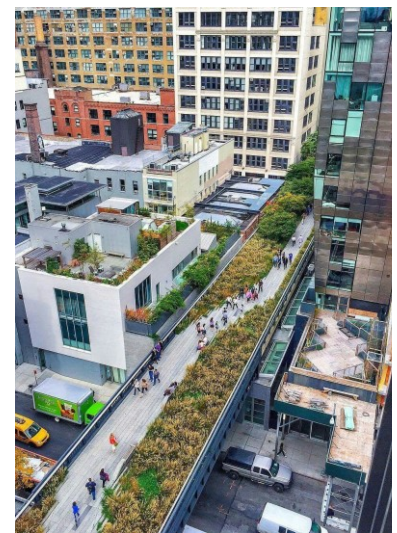


derused real estate which should be exploited for whatever purpose suits the city or property owners at any particular time, like setting up bicycle rental and e-scooter corals, or erecting electric car charging stations, or allowing companies to set up their delivery boxes, or encouraging restaurants and shops to spread outdoors into the empty space between where their inside ends and where the roadway begins, or suggesting that they are safer than roads for bicycle, e-scooter and moped riders? Whatever purpose Chaos has for sidewalks, it is very clear that one of them is not to make them hospitable places for walkers.

Maybe in chaotic cities, sidewalks will once again become refuges, but not from the hurly-burly on the ground, all the rushing around of cars and trucks and bicycles and scooters and buses and trolleys and robots delivering pizzas. The people of New York City have given us a glimpse of what a sidewalk can be in a chaotic city. It's their *High Line*, an attraction consisting of a 1.45-mile long overground sidewalk built on part of what was an elevated railroad bed. The attraction is itself a destination theme park created around walking. It goes nowhere that the sidewalks below don't go. I can imagine a young adolescent forced to leave his scooter on the ground (no bikes, skateboards, or scooters are allowed on the walkway) asking his parents: "What do we do here?" and his parents answering, "Walk. You'll see; it'll be fun."



I wonder what Haussmann and Jane Jacobs would think. It fulfills none of the goals that either of them had for a sidewalk. I believe Jane Jacobs would dislike it because it divides up the eyeballs who should be watching out for everyone. Moses would probably huff, "What a waste of good infrastructure." Chaos? "Whatever, if that's what people want. Why not?" Why not!? Because it takes the focus away from making all pedestrian paths, especially sidewalks, accessible, walkable, enjoyable, and safe. Let's all get our feet back on the ground.



The High Line is a public park built on a historic freight rail line elevated above the streets on Manhattan's West Side. Saved from demolition by neighborhood residents and the City of New York, the High Line opened in 2019 as a hybrid public space where visitors experience nature, art, and design. There's plenty of visitor parking, if you look closely at the photo to the left. HIGH LINE is maintained, operated, and programmed by FRIENDS OF THE HIGH LINE in partnership with the NYC DEPARTMENT OF PARKS & RECREATION supported by donations from the public and sponsors.

About Michael L. Sena

Through my writing, speaking and client work, I have attempted to bring clarity to an often opaque world of highly automated and connected vehicles. I have not just studied the technologies and analyzed the services. I have developed and implemented them, and have worked to shape visions and followed through to delivering them. What drives me—why do what I do—is my desire to move the industry forward: to see accident statistics fall because of safety improvements related to advanced driver assistance systems; to see congestion on all roads reduced because of better traffic information and improved route selection; to see global emissions from transport eliminated because of designing the most fuel efficient vehicles.

This newsletter touches on the principal themes of the industry, highlighting what, how and why developments are occurring so that you can develop your own strategies for the future. Most importantly, I put vehicles into their context. It's not just roads; it's communities, large and small. Vehicles are tools, and people use these tools to make their lives and the lives of their family members easier, more enjoyable and safer. Businesses and services use these tools to deliver what people need. Transport is intertwined with the environment in which it operates, and the two must be developed in concert.



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