

There are currently actions taking place or contemplated in New York, at the City as well as State level, which will have a profound impact on our vehicular future. One involves technology, electric-assist bikes, regulated by the State and the other bike share, contemplated by the City. Their introduction could bring strong evidence that we are ready for the future and capable of dealing with it, rather than the reality-denying, addicted to the status-quo critters that our usual behavior indicates we are. The rejection of these desperately needed mobility-expanding gifts will leave us in the dust, decades behind more responsible and sensible governments and societies everywhere, reveal us to be hopelessly mired in archaic mindsets, at the mercy of personal politics and multi-ton monstrosities.

New York City, and its scaled-up everything, especially transportation, began with its fine harbor. The Hudson River also turned out to be the first leg of a long canal into the Midwest, enabling agricultural and industrial products to move far more easily and cheaply on huge barges than plodding land wagons. In 1832 the first trolley, horse drawn, took its two mile rail round trip to Union Square from what is now Soho's fashionable "Nolita". The railroads using the city as a hub brought more commerce and population and, with Mr. Otis' help, early electric vehicles, called elevators, opened up the vertical axis and made for taller and taller buildings. Serious congestion began early, and soon after, gridlock in the most heavily-built areas became a grim reality. Mobility and low expectations here are siblings.

Bigness and rapid growth have turned out to be a formula for success for New York, not for nothing known as "The Empire State". Generally speaking, all Governments and businesses are expected to grow continuously and often success is measured by that rate of growth. Historically, there has often tended to be only one dominant factor in many political and commercial arenas. If you are number two you could soon be number zero. Winner takes all is one way the pie gets cut up and the surest way to make certain that you survive, is to be the only one left standing. The pressure to grow is phenomenal, irresistible, more than just a conceit. If you are getting smaller you may be on the way to disappearing altogether so get up and get more or get lost is the rule. When they achieved adequate throw weight, the oil and auto industries sent rail packing, and they themselves are unlikely to give way to the next big thing without a fierce battle. That it will be the next small thing has them flummoxed beyond recognition.

Regardless, the whole bubbled-out Western world is facing the need to downsize and it turns out that cycling is the perfect way to do it and have a good time too. But we need help too: we need to share the cost so we can afford it, and we need a few watts of motorized muscle to painlessly move that new piece of roof keeping the rain off our heads so we don't suffer too much during the transition. Compared with giving up the hope of ever having your own home or family, or a college education or good paying job, this is a piece of cake with icing on it. Whether making a single small step towards balance and proportion will matter, in a world suffering from tectonic dislocations of a magnitude which we may never have experienced before, is another thing of course.

Many cyclists love New York, for its pace, its diversity of pleasures and its convenience, how close everything is. There is hardly a place in the world with natural conditions as perfect for human scale and human powered vehicles. The terrain, the mixture of residents, visitors, tourists, workers, mostly the density, all work in favor of a rapidly growing role for a nice slow and often pleasant form of travel. The

availability of subway transit helps too, (since non rush-hour access for bikes is still permitted here), especially when you are making long, multi-borough jaunts. Aside from many too many city-unfriendly and oversized vehicles, (many operated by bad drivers) and a police force which has never been ordered to enforce existing traffic laws, this place could have been designed with the eventual pre-eminence of human-powered transport in mind. Eliminate the parking issue (which bike-share neatly does) and the sweat factor, (viva electric), and everybody and his cousin will be riding a bike, even if they haven't since they were 12 years old.

"Bike City" was the name we chose for some conference/events we put on here in NYC back in the 80's. Since messengers did most of the riding then, and there was pungent evidence in attempted bans (happily, beaten back) and tabloid headlines (getting unfairly beaten up) that they were not all loved by all, so this title was perhaps meant to convey a hint of irony as well as the phenomenal suitability of biking here. When Manhattan Media, owner of a dozen community newspapers in NY, decided to do a 50-exhibitor bike show last spring, the oversized headline plastered across the special paper they printed for the occasion was "Bike City". Now that there is beginning to be some decent infrastructure, and the streets are filling up with every variety of cyclist, what was once an optimistic projection is rapidly turning into a simple statement of fact.

There are still some major problems though. Designating all that street space for bikes makes sense when it is warm and they are being well used. What happens in the 6 months of the year when almost nobody rides? The ire of cabbies and others is multiplied infinitely and the pressure to remove these needed facilities becomes so great that their future is put in doubt. One solution presents itself gradually over time, when cyclists discover that they are enjoying the experience so much that they cannot stop just because of a few raindrops and they learn to dress appropriately and soldier on. There are whole countries, some colder than ours, where everybody cycles all year round without a problem. This can happen but it will take time no doubt.

The real solution involves the creation of a new class of shared vehicles, human-scale and human-powered, but electric-assisted, capable of providing all of the creature comforts now the exclusive province of multi-ton, urban-unfriendly automobiles, but without their conspicuous hazards and defects. One of the advantages of these new bikes and trikes will be weatherization, protection against rain, wind and cold. Even during the warm months, wet conditions will keep all but the most hearty cyclists (excepting messengers and food deliverers who have no choice in the matter), off the road. It is not because there is some inherent inability to provide this upgrade, it is just not being widely done. There are some "Velomobiles", mostly in Europe with few here, whose lightweight fiberglass bodies and stable recumbent styling make them perfectly suitable for all-weather commuting, but even they are limited in some ways, such as being single rider and single person owned vehicles only.

Everything comes down to scale. (Remember, your first music teacher told you the same thing). The average person uses his or her car about ½ hour a day. 10,000 miles a year, about 30 miles a day at 60 MPH. 1/50th of the day. The average car is about 4000 pounds or about 40 times the weight of a 100 pound, super-decked-out, human powered, electric assisted runabout, available from the bike share program for its daily ½ hour use. If you multiply these two factors, 50 x 40, you get 2000. A simple

calculation reveals that we, as a rule, are wasting 1999 parts of every 2000 parts of travel-time-value that we are allotted. It is true that the economy lives off of this waste and we are told that we cannot afford to have affordable transport because it will cause the economy to collapse.....of exhaustion after decades spent having to generate the resources to be able to afford to waste 1999 parts out of every 2000, which is damned tiring, and has whole continents of poor people really angry at us.

What is needed is a “Manhattan Project” urgency being applied to the issue of safe, comfortable, affordable, all-weather, multi-person, human-powered and electric-assisted vehicle design with the intention of producing the maximum variety of configurations and approaches not some allegedly perfect prototype to be reproduced endlessly and boringly, forever into the future. Current bike share systems, pioneered by the billboard industry, use uniformity and economy of scale to the max and it is accepted by potential sponsors, governments, schools etc. as a given, an unavoidable economic necessity especially when it comes to maintenance. This is really just a means to maximize profitability by minimizing needed diversity of design, and is a fatal flaw in the current approach, but is correctable. Equipment that permits easy and secure lockups, adaptable to any vehicle design, including those for the transportation-disadvantaged, exists already and is getting better. This is not an engineering challenge alone, since most of the needed components are already here, it is a raising of expectations, an acknowledgement that this must be a quest for the fullest range of experiences, the beautiful as well as the practical, available to everyone, not just the lucky few.

There is no one perfect vehicle but rather tens of thousands or more. Are you near a body of water? Maybe it needs to be amphibious too. Is it always cold, or always hot or very windy? Do people prefer to travel in groups, or alone, or maybe in pairs? Are streets lit, are roads paved, how far must you need to go to bring your goods to market and is there any public transport? Does other traffic make it unsafe to move about on a bike or other small conveyance, or what can be done to make them more conspicuous yet still dignified? Tall flags with streamers, LEDs, pleasant sounds, special safe lanes? Can local people share easily, use the same facilities and be comfortable with the results? Can the average person afford even one more thing, no matter how useful it might be? Do people in a particular place adapt to change without great difficulty or do deeply established traditions tend to discourage innovation and changes of habit? Will those who profit most from the status quo ever allow us to escape from their gilded cages?

It is a powerful source of hope that so many in the over-developed world are looking to renew their connection to the less materialistic aspects of existence. They are worn out by all that stuff, the search for it, the shopping, the making the money so you can pay for it, the caring of it, the storage of it, the consumption of it, the forgetting what you did with it, the forgetting of why you wanted it in the first place. Now simplicity is the most valuable thing. A ride on a country lane on a bike is more satisfying than a grand hotel around thousands of others seeking the same refuge from the same mountain of possessions and concerns. Somehow a one horsepower motor, all that will be allowed if the law is ever passed here, is just enough to get you up over the hill, the same way a single horse was plenty powerful enough to get you home and over that same hill. 300 horses? It suddenly looks like a bad movie about a guy with a big herd of trouble and nowhere left to go.