

"...great ammunition for those of us who would like to see American cities become more bike-friendly..." DAVID BYRNE, *The New York Times Book Review*

Jeff Mapes



Pedaling



REVOLUTION

How Cyclists are Changing American Cities

Pedaling Revolution

How Cyclists are Changing American Cities

by

Jeff Mapes

OREGON STATE UNIVERSITY PRESS
CORVALLIS

For more information or to order the book,
visit <http://osupress.oregonstate.edu/book/pedaling-revolution>

The paper in this book meets the guidelines for permanence and durability of the Committee on Production Guidelines for Book Longevity of the Council on Library Resources and the minimum requirements of the American National Standard for Permanence of Paper for Printed Library Materials Z39.48-1984.

Library of Congress Cataloging-in-Publication Data

Mapes, Jeff.

Pedaling revolution : how cyclists are changing American cities /
by Jeff Mapes.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-87071-419-1 (alk. paper)

1. Cycling--United States. 2. Cycling--United States--Safety
measures. 3. City and town life--United States. 4. Urban
transportation--United States 5. Urbanization--United States.
6. Cycling--Europe. 7. Cycling--Europe--Safety measures. 8.
Urban transportation--Europe. 9. Urbanization--Europe. I. Title.

GV1045.M36 2009

796.6--dc22

2008042772

© 2009 Jeff Mapes

All rights reserved. First published in 2009 by Oregon State
University Press

Printed in the United States of America

Oregon State University Press

121 The Valley Library

Corvallis OR 97331-4501

541-737-3166 • fax 541-737-3170

<http://oregonstate.edu/dept/press>

Contents

Introduction	7
<i>CHAPTER 1.</i>	
How Cyclists Created a Political Movement	27
<i>CHAPTER 2.</i>	
Learning from Amsterdam	61
<i>CHAPTER 3.</i>	
Creating the New Urban Bike Culture	89
<i>CHAPTER 4.</i>	
Davis: Invention of an American Bike City	119
<i>CHAPTER 5.</i>	
Portland Built It and They Came	141
<i>CHAPTER 6.</i>	
Biking in the Big Apple	169
<i>CHAPTER 7.</i>	
Overcoming the Safety Barriers	195
<i>CHAPTER 8.</i>	
Health and the Bicycle	227
<i>CHAPTER 9.</i>	
Bringing Kids Back to Bikes	247
Epilogue	267
Acknowledgements	275
Selected Bibliography	277
Index	285

Introduction

From New York's Williamsburg Bridge to San Francisco's Market Street, rush-hour traffic jams—those iconic emblems of American life—teem with millions of cars, trucks, and buses. At first glance, only the increasing miles of congestion and the stylized curves of the cars distinguish twenty-first-century gridlock from decades past. But now, bobbing lightly in the exhaust-filled urban streams is a new addition: the bicyclists. By the hundreds of thousands, these unlikely transportation revolutionaries are forgoing the safety of a steel cage with airbags and anti-lock disc brakes for a wispy two-wheeled exoskeleton as they make their way to work, school, and store.

There are, of course, the ever-present bike messengers, fueled by pure adrenaline and their own private code of survival. But stand on the new bicycle and pedestrian ramp over the Williamsburg Bridge and you'll also see well-dressed men and women, riding upright on shiny bikes outfitted as carefully as an executive's BMW. Tattooed young hipsters rush by, handling their battered bikes with nonchalant ease. Young women glide by on beach cruisers. Grim-faced riders in spandex and aerodynamic helmets speed by on expensive road bikes that seem more air than metal. Only their document-packed saddlebags hint at a day of serious desk work.

For the first time since the car became the dominant form of American transportation after World War II, there is now a grass-roots movement to seize at least a part of the street back from motorists. A growing number of Americans, mounted on their bicycles like some new kind of urban cowboy, are mixing it up with swift, two-ton motor vehicles as they create a new society on

Pedaling Revolution

the streets. They're finding physical fitness, low-cost transportation, environmental purity—and, still all too often, Wild West risks of sudden death or injury.

These new pioneers are beginning to change the look and feel of many cities, suburbs and small towns. In the last decade, thousands of miles of bike lanes have been placed on streets around the country, giving cyclists an exclusive piece of the valuable asphalt real estate. As gas prices rise, traffic congestion worsens, and global climate change becomes an acknowledged menace, a growing number of cities have launched programs to shift a measurable percentage of travel to cycling. Take Chicago, for example. When it comes to transportation, the Windy City is known as the nation's railroad crossroads. But it has adopted a blueprint calling for 5 percent of trips under five miles to be made by bike. In the concrete canyons of lower Manhattan, New York City is literally pioneering a new kind of street, one designed to allow cyclists to peacefully pedal while largely separated from cars and trucks. And in my hometown of Portland, Oregon, local officials have built a bike network that in the span of a little over a decade has helped turn about one in twenty commute trips into a bike ride.

In these cities and elsewhere, motorists are learning to share the streets with a very different kind of traveler, one who often perplexes and angers them. Listen to talk radio and you can hear the backlash as callers vent about bicyclists who blow through stoplights or who ride in the center of the street and slow drivers behind them. Bicyclists express their own anger at inattentive drivers and a car culture more concerned with speed and aggressiveness than safety. And that sense of fury helps fuel a bicycle-rights movement that is growing in visibility. Bicycling, once largely seen as a simple pleasure from childhood, has become a political act.

The burgeoning bicycle culture is a rich tapestry. It ranges from the anarchic riders of Critical Mass to the well-heeled Lance Armstrong look-alikes on bikes expensive enough to rival the cost of a low-end car. For the young “creative class” that cities are fighting

INTRODUCTION

to attract, bicycles are a cheap, hip way to get around town. That's why Louisville—not exactly a beacon of the counterculture—has made a determined effort to become friendly to bicycling. The city's mayor sees it as a good way to attract those young people who will power the economy decades from now. On the other end of the age spectrum, bikes are a low-impact way for AARP-age adults to exercise after their joints can no longer take the pounding of jogging. In fact, the two baby boomers who competed for the presidency in 2004, George W. Bush and John Kerry, are both avid cyclists who would cart their bikes along on campaign trips. Four years later, Democrat Barack Obama became the first mainstream presidential candidate to promote cycling as a transportation tool and to actively solicit the support of cyclists in his campaign.



Like most Americans, I didn't think seriously about the bicycle for most of my life, even though I've loved to cycle since I was a kid in the 1960s, riding my Schwinn Sting Ray around the hills of Oakland, California. As a teen, I graduated to a ten-speed, which I often rode the six miles to high school. But, like most teen-age males, I hankered for my driver's license and a car. And for years after that, as I chased a career in journalism and started a family, I never thought about bicycling much. It just wasn't something my peer group had much to do with, and like many reporters, I spent a lot of time in a car. But in the mid-1990s I bought a new hybrid bike, which was more comfortable for city riding than my old ten-speed. I would occasionally pedal the three miles to work on sunny days. At the time, the city of Portland, where I live, had embarked on an ambitious program to build a network of bike lanes, trails, and low-traffic "bicycle boulevards" that would crisscross the city. These improvements helped turn me into a daily bike commuter. The treacherous exit—for cyclists anyway—off the west end of the Broadway Bridge turned calm after the city reconfigured the lanes

Pedaling Revolution

and added a new signal light phase that allowed riders to take the left exit off the bridge while right-turning motorists had to wait. And a new, well-lit pedestrian and bike path along the east side of the Willamette River helped give me the confidence to begin riding during the dark months of the year.

My own perspective shifted as I became comfortable maneuvering next to cars and trucks and my physical fitness began to improve. I joked about wearing a sign stating, “Ask me how I lost weight while commuting to work.” The political reporter in me—I’ve been one for three decades—began to wonder, what spurred the city to make these improvements? Is the same thing happening in other cities? Can Americans really be seduced out of their cars in large numbers, at least for short trips?

My search for answers led me across the country, as well as to the Netherlands, the Mecca of American bike advocates. As I discuss in later chapters, there is no American Amsterdam ... yet. But I did find that cyclists have become part of a much larger movement to reduce the dominant role of automobiles in American cities. Imagine fewer parking lots and more public plazas. Think of urban neighborhoods that have the walkable ambience of an old European city, not wide streets and strip malls. Or maybe just the kind of street that is safe enough for kids to once again play in.

Sometimes it is tempting to think of these urban cycling advocates as the crazy Jihadists of the sustainability movement, given the physical risks and cultural opprobrium cyclists often encounter. But the truth is that cycling has attracted a much broader—and often more sophisticated—demographic than many might think. Take Mark Gorton, who has minted a New York fortune at the intersection of finance and high tech. Gorton’s empire includes a hedge fund that uses sophisticated computers to make lightning-fast trades as well as a controversial internet file-sharing company under attack from the music industry. But he is also an avid cyclist who has become one of New York’s chief patrons of the “livable streets” movement. It all started years ago, he explained, when he

INTRODUCTION

just wanted to ride his bicycle a couple of miles to work at the Credit Suisse Bank in midtown Manhattan.

“It was one of those things that I was aware of when I was riding there that if I did it long enough, I was going to get into a pretty bad crash—it was just inevitable,” he explained. “When you almost get killed a few times you start to realize, this is stupid. Here I am doing something that is more environmentally friendly, healthier, it’s the sort of behavior that the city should be trying to encourage, and yet it has designed the system so that it’s really hostile to bicyclists.”

When animated, Gorton barely pauses for breath. A wiry, dark-haired man on the cusp of forty, he’s adopted the Silicon Valley look: immaculate blue jeans and a black t-shirt with his company logo, Lime Inc., tastefully affixed on the left breast. We sat on the outdoor roof patio of his penthouse offices in lower Manhattan. With twelve stories separating us from the street, the traffic sounds were gently muted. “I’m like, this is just wrong and this is just screwed up,” he said. “And then the more I started thinking about it, I started realizing that it didn’t have to be that way. That it wasn’t that the world was inevitably hostile to bicycles. And I think that once you start opening your eyes to these things you realize it’s not just about bicycles, it’s about everything ... I would be walking down the street and I would think, ‘What a nice little street, I really like this,’ and I started realizing that the times that I felt that way, there was very little or no traffic. And all of a sudden, I’m like, wow, the world is much better without traffic.”

Gorton leaned forward in his wrought-iron chair. It was almost lunchtime and some of his employees were drifting out into the spring sunshine. One sat near us, listening to his boss with bemusement. “After thinking about it,” Gorton added, “I realized you probably could reduce the amount of traffic in New York by 80 percent and not have any negative economic impact at all—and probably only positive economic impacts. And once that gets in your head, I couldn’t be content with the world anymore.”

Pedaling Revolution

Gorton began plowing his money into the notion that he could change the realities of the New York streets. He became the largest donor to Transportation Alternatives, the city's chief bicycle and pedestrian lobby. He started his own nonprofit, with the idea of giving neighborhood activists software tools they could use to develop plans for such amenities as public plazas and low-traffic streets. And perhaps most prominently, he financed a new internet site, Streetsblog, which became a rallying point for cyclists, urban planners, mass transit geeks, and everybody else who had come to question why so much space should be turned over to cars in a city so compact that most residents don't even own one. From checking the internet addresses, Gorton's bloggers found out that city bureaucrats, particularly in the Department of Transportation, were also loyal readers—if only to see how streetsblog was beating up on them each day. Like a modern-day William Randolph Hearst, he had found his megaphone.

Streetsblog came at a propitious time and maybe even had some impact. Within a year of its launch, the city government under Mayor Michael Bloomberg abruptly turned from celebrating New York's auto-choked streets as a sign of economic vitality into warning that the city could not accommodate population growth without reducing the role of the private automobile. Following the lead of London, Bloomberg pushed to enact a congestion charge on all motor vehicles entering most of Manhattan. He also brought in a new transportation commissioner, Janette Sadik-Kahn, who adopted the livable streets agenda with a vengeance—she made a point of cycling to work her second day on the job—and stocked the agency with many of the same reformers featured prominently on Streetsblog. And the city moved ahead with an aggressive plan to create more than two hundred miles of bikeways over a three-year period.

In many ways Gorton is an archetype—a privileged, well-educated white guy who wasn't used to being treated shabbily until he tried to ride a bicycle on the street. And that turned him into

INTRODUCTION

an activist. But he is also a dramatic example of how bicyclists are beginning to win a place at the table of the transportation industrial complex—that interlocking network of industry, politicians, planners, and builders who control the billions of dollars spent on roads, bridges, and rail. As rudimentary as the bicycle may seem to Americans more accustomed to using automobiles for even the shortest of trips, the simple two-wheeler is attracting new attention because of a confluence of factors largely driven by that very reliance on the auto.

The bike offers a non-polluting, non-congesting, physically active form of transportation in a country, and in a world, that increasingly seems to need such options. The heightened global competition for the world's oil supplies has ended the era of cheap fuel that made our automobile dependency possible. Our increasingly sedentary lifestyle raises the specter of an obesity epidemic that could shorten the life span of the next generation. And we're outstripping our ability to maintain and expand our network of roads and bridges.

At first blush, it may seem odd to talk about the humble bicycle in the same breath as electric cars or biofuels or hydrogen-powered fuel cells that are presented as the ultimate solution to our energy and environmental woes. In fact, though, bicycling can accomplish more than most people think.

Paul Higgins was a postdoctoral scientist at the University of California at Berkeley when he dined at a restaurant one night with his parents, both of whom are physicians. His mother sighed when the waiter brought huge platters of food. "Think of all the resources that are wasted in this food on this plate," he remembered her saying, "and it's just going to make us fat." Higgins, who was studying climate change at the time, turned it around in his mind. He asked himself, What if we saw that food as the original biofuel? How far could we go on it? Higgins calculated the energy savings if every adult walked or cycled for a half hour or an hour a day and then reduced their driving by the distance they covered walking or biking. The savings were the most dramatic for cyclists, of course,

Pedaling Revolution

because they can easily travel about three times as fast as a walker. If everyone cycled for an hour and reduced their driving by an equivalent distance, the U.S. would cut its gasoline consumption by 38 percent, Higgins found. Greenhouse gas emissions would be reduced by about 12 percent, which is greater than the reductions called for in the Kyoto treaty (which the U.S. saw as too onerous and never signed). To add to the bargain, the average person would lose about thirteen pounds a year.

Higgins, who later became a senior policy fellow at the American Meteorological Society in Washington, was quick to acknowledge this scenario won't become reality. Many people can't reduce their driving by cycling for an hour every day. They may not be physically capable of riding or they drive such long distances that they can't substitute cycling for any trip. But what's important about Higgins' calculations is that it gives you a sense of how the bicycle, coupled with relatively minor changes in habits, could actually produce serious reductions in oil consumption and greenhouse gas emissions.

It is true that tougher emission and mileage standards for cars have the potential for far bigger reductions than would likely be gained by the increased use of bicycles. Even the most bike-centric countries in the developed world—such as the Netherlands—rely much more heavily for mobility on the automobile. However, because the bicycle in all of its simplicity does so many things at least a little well, it could become an important part of a twenty-first-century transportation system. Since 40 percent of U.S. trips are two miles or less, a bike can often substitute for the car (which now accounts for two-thirds of those under-two-mile trips), saving not only gas but also the space it takes to move and park a car. And bicycling makes an elegant link to mass transit, which lacks door-to-door service. Or think of the health side of the equation. I could probably get a better and more complete workout if I went to a gym for an hour every day. However, like most Americans, I can't or won't take the time to do that. But I can spend roughly an hour

INTRODUCTION

“accidentally” exercising on my ride to and from work and not take any more time than it would to fight rush-hour traffic (after a move my commute has now grown to about four and a half miles each way). The cold efficiency expert in my soul loves that.

Moreover, cities like Portland have shown that they can boost bike ridership out of what amounts to spare crumbs in the overall transportation budget. Surveys show that nearly 5 percent of Portlanders are bicycling to work. That’s not a bad deal given that the city has been spending less than 1.5 percent of its transportation money on bikeways. It’s also a good deal for me personally: I’ve financed a fleet of bikes in my garage, plus an assortment of raingear and other bike paraphernalia, out of savings in bus fare and parking (I used to mostly take the bus but often drove as well). Perhaps more importantly, bicycling is a good deal for society. One study found savings in energy, pollution, and other costs of as much as 22 cents for each mile in which a bike could be substituted for a car, and that study was done before gas prices spiked above four dollars a gallon. If 10 percent of Americans biked instead of drove just ten miles per week, that’s a savings of more than \$3.4 billion a year. That’s more than the entire federal energy research budget. The bike may not be a wonder drug for what ails America, although it is amusing to think how it would be promoted if the pharmaceutical industry could patent it. But the bike can play a serious role in America’s transportation network—if society will take this simple contraption seriously.

In recent years, several European countries have made major steps to promote bicycling for short urban trips. Paris now has twenty thousand short-term rental bikes on the street and they have quickly proven to be a popular alternative for short trips. Amsterdam and Copenhagen have come to rely more heavily on bikes than cars. London and Stockholm charge motorists to enter their central city areas and have seen major increases in cycling as a result. A new bike chic is spreading on the continent. Still, Americans are often loath to follow European trends, as anyone familiar with our very

Pedaling Revolution

different health-care system can tell you. And our sheer size makes us vastly different when it comes to transportation.

Our communities tend to be more sprawling and our commutes longer. Europe is also dotted with ancient cities too cramped to accommodate rampant auto use, unless you want to sacrifice the very attributes that make them so vital and lively. Most Americans live in the suburbs, often in housing developments connected to each other only by busy arterials. It may be pleasant to bike or stroll in the immediate neighborhood, but it can be hard to cycle anywhere useful without braving intense and swift-moving traffic. In much of the country, bikes have been marginalized for so many years that motorists never learned to be around them, which in turn made cycling more dangerous and further discouraged their use for even short trips.

I may like to see my bike as my exoskeleton, a device that efficiently magnifies my power and makes me stronger even when I'm not tethered to it. But the truth—as one *Wall Street Journal* commentator once wrote—is that cars have become our real exoskeleton. We rely on them not only to take us almost everywhere we want to go, but for protection from the elements, for status, and even for sensory pleasure (it is for good reason that car ads tout blinding acceleration, prowess in the wilderness, and the rush of racing down empty, twisting roads; the vehicle marketers know what makes us feel good). For almost all of us, the car is the exemplar, our magic personal flying machine, keyed to our own music. If it fails to deliver on perfection, the fault lies elsewhere: with the reckless idiot who gets in a wreck and ties up traffic, the government's failure to build enough roads, and other peoples' insistence on jamming up the parking lot you're trying to use. The harder we work to afford them—and the average working-class family now spends slightly more on transportation than on housing—the more we demand of them.

We've been lectured about our near-total reliance on the car ever since the Saudi princes and the rest of OPEC tried to cut off our

INTRODUCTION

oil in the early 1970s, but for years we shrugged it off as little more than a bump in the road. Four-dollars-a-gallon gasoline is finally starting to change that. But it's hard to change decades of relying almost exclusively on the automobile. Our cars solve so many other problems: you can plop homes—and ever-bigger ones, too—farther out in the countryside where the land is cheaper. Businesses can move into tilt-up concrete buildings with little regard to the proximity of their workforce, just as long as there is also room for a big parking lot. The middle class can buy out of urban poverty; whatever frightens you can be kept at a distance. Between 1990 and 2001, the number of miles we drove grew more than twice as fast as the population. In that same time, the average motorist went from spending forty-nine minutes a day in their auto to more than an hour. The long-distance commute was no longer remarkable. In one suburban county near Atlanta, the average commuter now travels more than thirty-one miles just to get to work. America's cars may have lost the gaudy tail fins and ornamental chrome of the fifties, but they morphed into an extension of the household, a place where there is just as much eating, media consumption, and heart-to-heart conversation as in the family room off the kitchen. The hard edges, sketchy brakes, and no-seat-belt cars of the tail-fin era also gave way to a sophisticated steel cage that somehow usually keeps people alive when they ram into other objects with g forces equal to a rocket launch. More than forty thousand people in America die every year in motor vehicle crashes, but the decline in fatalities per mile driven—from more than 5 deaths per 100 million miles in the pre-Ralph Nader 1960s to about 1.5 per 100 million miles by the turn of the twenty-first century—has been steep enough to provide such a sense of safety and security that we're constantly thinking of new ways to do other things, like talk on the phone, while we're driving.

And into this highly engineered world that would be as weird and futuristic to our great-grandparents as interstellar travel is to us come an increasingly assertive breed of cyclists riding human-

Pedaling Revolution

powered machines that our great-grandparents could identify in an instant. We barely tolerate the frail senior poking along in his car. To deal with a cyclist, without all of the customary protection, traveling at such different speeds—you whiz past them when traffic is light; they zip by you when you're in gridlock—well, it's as unsettling as seeing a naked guy run out on the gridiron and line up at quarterback.

While we may celebrate individuality in most aspects of American life, most motorists expect strict conformity on the road. On a trip to Washington, D.C., I ran into a prominent anti-poverty expert who for years has fought politicians who demagogue about welfare queens and people too lazy to work. But when we got to talking about bicycling, he quickly complained about a cyclist who had recently pedaled ahead of him but wouldn't move out of his way. "He was delaying me," my poverty expert fumed, his voice rising into a whine. I sighed. The truth is that my acquaintance didn't think about whether the cyclist would risk being hit by a car door if he moved too close to the curb, or whether the street was too narrow to pass safely. All he knew was that this asphalt queen was in his way.

It is true that I see bad behavior on the part of cyclists every day. Part of it is a lack of education and training. And part of it is simple human nature: many cyclists will take shortcuts if it seems like they can, just like drivers tend to exceed the speed limit because it feels safe and they know they are highly unlikely to get a ticket. I'll get into this topic more in a later chapter. The other big charge that gets flung at cyclists needs to be dealt with up front: which is that, unlike motorists, cyclists don't help pay for the roads. That thought is deeply ingrained in the American psyche and is routinely used to argue that cyclists do not have—or should not have—any right to use the roads. Once I was waiting at a stoplight in downtown Portland on a weekday morning watching a drunk stagger in the crosswalk in front of me. He turned, stared at me as he teetered, and said, "Goddamn it, you don't even pay any taxes."

INTRODUCTION

It is true that cyclists don't pay gas taxes (except when they are driving, as most cyclists do at one time or another). But they do pay property taxes, which nationally account for 25 percent of spending on local roads, which is what cyclists most heavily use. These streets have always been seen as public space, free to whomever wanted to use them. Motorists may want to turn them into a kind of gated community, but that is contrary to our traditions and to our law.

More importantly, very little is said about the huge subsidies received by motorists that far outweigh any freebies received by cyclists. The largest is free—or cheap—parking. Cars take up a lot of space and it is expensive to provide the room to park them (parking garages can cost upwards of \$10,000 a space). When I ride my bike to the grocery store, I don't take a space in the parking lot. But the cost of providing that acre of parking at my local store is reflected in the prices of everything I buy there. That may sound trivial, but it isn't. One study estimated that drivers received as much as \$220 billion in 1991 in parking subsidies—more than was spent on roads that year. UCLA Professor Donald Shoup¹ calculates that all of the country's parking spaces take up an area roughly equivalent to the size of Connecticut. And I won't even go into such subsidies as the military costs of keeping our oil supplies flowing in the Middle East.

1. Shoup is another influential figure in transportation who has been affected by his years as a cyclist. He argues that cities should base parking fees on demand so that there are always a few open spots. This will reduce cruising for open spaces—which studies suggest accounts for a major amount of traffic in dense urban areas—and encourage drivers to seek other alternatives. Several cities, including New York, are beginning to put his ideas into practice. “I think that most decision makers ... look at the world from behind the wheel of a car,” he told me. “And they easily understand that parking is a necessity because if you have a car you need a place to park wherever you want to go. But they think by necessity, that means free places to park ... Whereas if you're a bicyclist you tend to say, ‘Well, why shouldn't they pay? They're using it. Why should I pay for their parking?’”

Pedaling Revolution



For all of the ire directed at urban cyclists, most people do have a fondness for bikes themselves. Almost everyone has at least tried to learn how to ride a bike at some point in his or her life. The sporting goods manufacturers, who do a big survey every year, say that some thirty-six million Americans cycle at least once a year. But not since the Great Depression or the gas rationing of World War II have most people expected to do much of a utilitarian nature with their bike, at least as adults. For that reason, it's easy to infantilize cyclists, to think that they simply need to grow up. Politicians find that bicycling is an easy target if they need a scapegoat. After the Minneapolis freeway bridge collapse in 2007, Transportation Secretary Mary Peters complained that too much transportation money was being spent on things like transportation museums and bike paths, although the latter was a tiny fraction of federal transportation spending. No politician, I've observed, wants to be accused of telling his or her constituents they have to get out of their car and onto a bicycle.

However, just as it seems we're reaching the zenith of a mechanized, electronic age where every movement is power-assisted—think how ancient hand-crank car windows now seem—you can see the beginnings of a cultural shift. Cycling advocates have been the sparkplug for a broad coalition pushing government at all levels to adopt “complete street” policies that require the public right of way to accommodate all users, whether motorists, walkers, transit users, or bikers. Cyclists also started a movement now gaining nationwide acceptance to encourage children to walk and bike to school. Cyclists have joined with health professionals, who have failed for decades to persuade most adult Americans to exercise, to help figure out how to spur people to incorporate walking and cycling in their daily lives. Cyclists are also prominent in the so-called “smart growth” movement, which encourages density and a

INTRODUCTION

mixture of residential and commercial uses over suburban sprawl. And, of course, all too many cyclists (myself included, I confess) are aggravatingly cheerful about high gas prices and all too ready to offer a two-wheeled solution.

All of this comes as our central cities, which once threatened to become ghost towns as jobs moved to the suburbs, began to reinvent themselves as arts and entertainment centers catering to knowledge workers and creative young college graduates looking for interesting places to live. The 2007–2008 jump in gas prices led many Americans to reconsider where they resided. When the housing market, fueled by subprime mortgages, collapsed, the biggest price declines were in the outer suburbs.

It was becoming clear that while we were all in a hurry to get somewhere in our car, the places we wanted to linger are places kind of like ... quaint European downtowns, where you could sip espresso in a café or stroll down a pedestrian-only street and peer leisurely into shop windows. There is, in the planning literature, a lot of talk about walkable communities. American culture is finally catching up to what Jane Jacobs wrote in her landmark book, *The Death and Life of Great American Cities*, more than four decades ago: communities thrive when they offer a variegated mixture of housing and retail, and when people are encouraged to stroll and interact with their neighbors.

In the last decade, new studies have suggested that people who live in the cities are thinner than suburbanites, in part because they walk more instead of being constantly delivered from front door to front door by car. And as we age as a society, we seem to be rediscovering the pleasure of a nice amble. The trail-building movement in America is booming, chiefly on old right-of-ways abandoned by the railroads. And it is increasingly regarded as malpractice now to build a subdivision without sidewalks, unlike in the old days when many developers and homeowners alike thought that sidewalks ruined their rural ambience. (It should also be noted that it was cheaper for the developer to eschew the sidewalks. The

Pedaling Revolution

problem is that as traffic became more intense the effect was to force many people into their cars even if they just wanted to walk the dog). The “New Urbanism” movement that has sought to create denser communities with a mixture of commercial and residential uses has also made it easier for people in those communities to walk someplace useful or at least interesting. One curious thing about humans, we like having a destination, even if we’re just out for a stroll.

But there’s a big gap between the speed of cars and of humans on foot. And that’s where the bike comes in. A cyclist traveling at an easy pace can cover a mile in about six minutes, which is three or four times the speed of a walker. Ten miles an hour may not seem like much, but it’s competitive with a car for short distances, particularly when the congestion is thick and the parking difficult. In other words, do you really need more than a ton of steel to move your rear end two miles?

Elevating the role of the bicycle gets us into some much tougher issues. How do we integrate two very dissimilar vehicles into the road system? Do we follow the precepts of John Forester, an iconoclastic engineer who has gained a following by insisting that cyclists simply operate as much as possible like motor vehicles, with all the same rights and responsibilities? Or, do we join in with the bicycle planning professionals who are busily building a wide variety of special facilities for bicycles (which I will in general refer to as bikeways)? Does it only involve some paint on the road to provide some bike lanes, or to get serious do we need to move toward what they’ve done in the Netherlands and create what amounts to almost a second road system, physically separated from the first one?

Whatever we do with the roads, it’s clear that bicyclists have an impact on the streetscape. For example, one favorite tool to provide room for bikes is to put streets on a “road diet.” That involves reducing the width of the travel lanes—or maybe even eliminating some of them—to make room for striped bicycle-only lanes. This

INTRODUCTION

can both serve cyclists and increase overall safety because narrower lanes tend to slow motorists.

The more that cyclists use that bike lane, the more life on the street changes. Most mornings I ride for about a mile in a bike lane along Southwest Broadway, which runs through the heart of Portland's downtown. In the years after the bike lane was striped, I increasingly saw a new form of behavior by motorists: when they plan to make a right turn off Broadway, they stop, look over their right shoulder and make sure it's clear of cyclists before going. That doesn't happen all of the time. It's still all-too common to see near-misses between right-turning motorists and cyclists going straight ahead in the bike lane (and that conflict is one of the issues with bike lanes). Still, Southwest Broadway is not what it used to be, whether you're on a bike or not. Here is the really odd part: there is probably more traffic conflict on Broadway now than when the cops were coping with the cruisers who once dominated the street at night. But that conflict may not be all a bad thing. With a more complicated traffic flow, everyone is forced to be more alert and careful. It is a bit like being in a supermarket parking lot. You are more cautious and watchful because you know there are pedestrians all around, and cars and bicycles are coming from all directions. One planner I know even refers to it as "good chaos."

If bikes, in sufficient numbers, can have a traffic-calming effect on their own, cyclists themselves are also safer just by being more numerous, according to a study by California engineer Peter Jacobsen. He argues that this is also true for pedestrians, and it certainly seems to be borne out by casual observation. On the popular Burke-Gilman Trail in Seattle, for instance, I was intrigued to watch how most motorists automatically stopped as they approached an intersection with the trail, even if no bicyclist or walker was readily visible. They've no doubt been trained by thousands of near-misses over the years. In the university town of Davis, California, where about one out of seven trips is by bike, I watched a driver waiting to make a left turn in front of me shake

Pedaling Revolution

his head in disgust when I didn't automatically assert my right of way and quickly ride through the intersection.

So cycling advocates face a dilemma. Safety is probably the biggest barrier that discourages people who would otherwise be more willing to cycle. And clearly cycling is more dangerous in this country than in European countries that have done more to encourage cycling and gain safety in numbers. One study, for example, calculates that the fatality rate for American cyclists is at least three times greater than in the Netherlands, even though virtually no Dutch cyclist wears a helmet. Bicyclists find themselves in the position of not being able to promise new riders that they will be as safe on two wheels as they would be in their cars. But I have no doubt that safety improves with each new rider. So one could argue there's an almost cult-like desire by bicyclists to gain converts. As I said, cyclists are assuming a certain amount of risk (although I think it can be mitigated by following some common-sense riding practices) in the name of the greening of the city. They are naturally allied with environmentalists, the New Urbanists, the public health professionals, and people who like to walk. But cyclists have a place at the table in large part because they are rabid enough to join organizations and agitate politically. They don't begin to rival the National Rifle Association when it comes to single-issue lobbying, but there's a lot of that same fierce insistence in the rightness of their cause.

Of course, I doubt many people ride to save the environment or for other abstract reasons, although it may add an extra motivation. It's hard to imagine people riding if they don't simply love it. Those of us who do love it think about enjoying the outdoors, moving at a speed that fends off boredom but gives you time to scrutinize interesting sights, and that sets your body working just hard enough to release those pleasure-inducing endorphins. As one of my fellow bike commuters likes to tell skeptics, "It's like being able to golf to work."

INTRODUCTION

I see two sides to the future of cycling in this country. One is that many people are turning to bicycling in search of a different, freer lifestyle. As I said, they're like urban pioneers, setting off with a minimum of provisions to explore the frontier, even if that frontier is a city landscape most people are only dimly aware of through a car windshield. The other side is a piece of geopolitical reality. After walking, the bicycle is the world's most common means of locomotion, thanks in large part to the five hundred million bicycles in China. But now that millions of Chinese—and Indians and Malaysians and people in so many other developing countries—are abandoning their bicycles for autos, we're finding more competition for the fuel it takes to support our car-centric lifestyle. As I write this mid-2008, gasoline has reached four dollars per gallon and, for the first time in decades, Americans are actually driving less. They are snapping up compact cars, particularly hybrids, and letting SUVs molder on dealers' lots. Transit use has jumped and I constantly hear and see stories about people dusting off the bikes in their garages to use for short trips.

As journalist Thomas Friedman notes, the world is getting flatter, meaning that peoples' lifestyles and incomes are becoming more similar no matter where they are on the globe. In China, car ownership is growing by 20 percent a year—and it wouldn't surprise me if the reverse happens in America and bicycle use begins to grow rapidly as we adjust to ever-rising fuel prices. Beijing and New York streets could well look more alike, both jammed with cars but also with hordes of bicyclists.

Right now, I understand this is a prospect many Americans don't relish. Many see bicycling as too dangerous, too sweaty, unreliable in bad weather, rough on clothes, and a bane to carefully coiffed hair. People live on steep hills, are too far away from work and stores, have to drop their kid off at school, need to carry too much, have to get to daycare after work, use their car for work, enjoy driving anyway because it's easy, and—let's not forget this, even

Pedaling Revolution

though it usually goes unstated—we drive because our cars are so wrapped up in our personal identity. Most of us buy as much car as we can afford, and maybe even a little more, in part because it sends a message about our status to the rest of the world. Who isn't a little more muscular or beautiful or stylish behind the wheel of that curvaceous new vehicle?

I'll take the real muscles I get from riding my bike, not to mention the freedom from counting calories, the improved stamina, and the promise of a longer sex life. A little sweat isn't that big of a deal if you shower regularly and the truth is that every day, there are millions of car trips that can be easily substituted by the bike. To a degree, I think most people understand that. Several surveys have shown a sizable percentage of the population is willing to consider using a bicycle for some transportation purposes, if the circumstances are right. I think most people still retain fond memories of cycling, and I don't think it would be the hardest thing that Madison Avenue has ever had to sell. Ironically, the bigger problem is that the advertising industry isn't really selling cycling to Americans because it's just too economical. Cycling was about a \$6 billion industry in 2007, roughly equivalent to the hosiery business. Automakers spend more than that just on advertising.



I was in San Francisco a while ago, on one of those achingly beautiful sunny days in early fall when the California light is so crisp that it brings out a boldness in colors that you normally miss. As I rode past Fisherman's Wharf, I saw several tourists wobbling along a bayside path in rental bikes, just beginning to knock the rust off long-unused cycling skills. But they all had big grins on their faces. Maybe they will realize that cycling is a simple pleasure they don't have to reserve for a vacation in exotic San Francisco. And that someday they may be able to feel that same glee taking a simple ride through their own town.

“A growing number of Americans, mounted on their bicycles like some new kind of urban cowboy, are mixing it up with swift, two-ton motor vehicles as they create a new society on the streets. They’re finding physical fitness, low-cost transportation, environmental purity—and, still all too often, Wild West risks of sudden death or injury.” —from the Introduction

In a world of increasing traffic congestion, a grassroots movement is carving out a niche for bicycles on city streets. *Pedaling Revolution* explores the growing bike culture that is changing the look and feel of cities, suburbs, and small towns across North America.

From traffic-dodging bike messengers to tattooed teenagers on battered bikes, from riders in spandex to well-dressed executives, ordinary citizens are becoming transportation revolutionaries. Jeff Mapes traces the growth of bicycle advocacy and explores the environmental, safety, and health aspects of bicycling. He rides with bicycle advocates who are taming the streets of New York City, joins the street circus that is Critical Mass in San Francisco, and gets inspired by the everyday folk pedaling in Amsterdam, the nirvana of American bike activists. Chapters focused on big cities, college towns, and America’s most successful bike city, Portland, show how cyclists, with the encouragement of local officials, are claiming a share of the valuable streetscape.

“Writing from Portland, the hub of the American cycling renaissance, Jeff Mapes, brimming with passion, humor and salutary insight, makes an admirably clear-headed, convincing and, ultimately, humane argument for making more room for the two-wheeler, in our lives and on our roads.”

TOM VANDERBILT, author of *Traffic: Why We Drive the Way We Do (and What It Says About Us)*

“This is quite a wonderful and useful book. *Pedaling Revolution* picks up where I left off when it comes to bicycling and urban transportation. Expanding human mobility is what we’re all after and that is the promise of the bicycle in our cities. Finally, the bicycling movement gets the serious examination that it deserves.”

JANE HOLTZ KAY, author of *Asphalt Nation: How the Automobile Took Over America and How We Can Take It Back*

JEFF MAPES is senior political reporter for *The Oregonian*. He has covered Congress, state government, and numerous local, state, and national campaigns. He is also author of the blog, Mapes on Politics. He lives in Portland, Oregon, where he is a longtime bike commuter.

Cover design: David Drummond

Oregon State University Press

ISBN 978-0-87071-419-1



9 780870 714191