



# FREEWHEELER NEWS

Newsletter of the Morris Area Freewheelers Bicycle Club

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## The History of Bicycles as Transportation Vehicles

By John Tetz

*"When I see an adult on a bicycle, I do not  
despair for the future of the human race." - H.G. Wells*

The Detroit Tribune called the perfection of the bicycle the greatest event of the 19<sup>th</sup> century. Why?

In the late 1800s, J. K. Starley, an English bicycle manufacturer, produced the first commercially successful Safety Bicycle, the Rover. By the 1890s, the bicycle was the king of transportation. It has the potential of, once again, becoming very important in today's world.

In the 1890s, the bicycle was an amazing national craze. Bike sales were so high that manufacturers had a hard time filling the demand. One company's sales went from 250,000 in 1894 to 400,000 in 1895. America was divided in two classes – those who rode bicycles, and those who did not.

In his research of the mining industry, Robert A. Smith reviewed newspapers from the late 1890s and noticed that entire sections of each newspaper were devoted to bicycle news. After he finished his mining research, he returned his focus to the bicycle, and ended up writing his wonderful book, *A Social History of the Bicycle*.

Smith found that the impact of the bicycle on American life went far beyond its use for sport and leisure. The popularity of the bicycle resulted in changes to the transportation system that hugely affected the society -- not just transportation, but how people socialized.



At the time, there was a major use of human labor, so any implement that increased human efficiency was highly desirable. Riding a bicycle, humans can go three to four times as fast as a pedestrian, while using five times less energy in the process. Even autos, trucks, and airplanes are at the lower end of efficiency. This is the kind of efficiency that is needed now in our environmentally stressed world.

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## The Bicycle: Symbol of Democracy and Eco-Friendliness

*The bicycle is the most civilized conveyance known to man.  
Other forms of transport grow daily more nightmarish.  
Only the bicycle remains pure in heart.  
~ Iris Murdoch, *The Red and the Green**

The Safety bicycle was very popular in the 1890s and is the most common bicycle in modern times. It was comparatively cheap -- available to millions who could not afford the cost, feeding, and care of a horse. The bicycle helped close the gap between the rich, with their horse drawn buggies, and the less-mobile average persons, and was thus an instrument of democracy.

In today's world, it may appear that we have equality in mobility, but it still comes with positions of class or status. Each year the car manufacturers advertise that their new models have more horse power and speed -- how quickly it can go from 0 to 60 miles per hour -- appealing to class, status, and a desire to feel more powerful and successful.

Given this philosophy, cars have grown to 4,000 pounds with 3 to 4 liter engines. What is telling here is the lack of concern of what this does to the environment, amongst other things.

Because bike speeds are far less than auto speeds, they are placed into a second class position among the class and status-oriented - where they have been for the last 75 years. Now, however, the game has changed. It is widely recognized that 'zero to sixty' emphasis has consequences in terms of environmental damage.

With a rising concern about growing environmental degradation and related health and quality of life concerns, the emphasis on cars-as-status-symbols and 'zero to sixty' auto-power becomes irrelevant -- and even undesirable -- making alternate forms of eco-conscious transportation increasingly attractive. The bicycle, as history shows, is one excellent option.

## The History of the Bicycle - Expanding Opportunities, Dissolving Boundaries

*It is by riding a bicycle that you learn the contours  
of a country best, since you have to sweat up the hills  
and coast down them. Thus you remember them as they  
actually are, while in a motor car only a high hill impresses  
you, and you have no such accurate remembrance  
of country you have driven through as you  
gain by riding a bicycle.  
~ Ernest Hemingway*

In the 1890s, bicycles connected rural, isolated communities. A worker could commute to a job further from home. Around 1915, my dad worked in Franklin, New Jersey, and rode a bike 40 miles over dirt roads to visit the family farm in Goshen, New York, on the weekends.

With a bicycle for transportation, young men could venture outside their own village to look for a spouse.

Bicycles didn't just open the roads out of the community, but became a source of connection within it. The bike shop was not only a place to buy into the new transportation craze, but a social spot as well. Cyclists made a habit of riding to the shop, pumping up the tires, and flirting with the girls.

Young people extolled it as the best means to elude parental surveillance.

How well I know this. I had a single speed, heavy balloon-tyred bike in the 1930s and 40s. It seemed like it weighed as much as me, but it gave me tremendous freedom to move about on my own!



Cycling was also extolled for its health benefits, recommended as a means of improving circulation, strengthening the lungs, and building good muscle tone.

Indeed, because of its many benefits, friends of the bicycle insisted it was the cure-all for what ailed the human race. The maverick bicycle designer, Grant Petersen agreed: "Think of bicycles as rideable art that can just about save the world."

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## **Riding Schools**

The twin arts of steering and balance were a relatively new concept. In the 1890s, Academies or riding schools sprung up to teach people how to ride these new-fangled machines. The New York Herald reported that there were twenty five first-class riding schools, which, given the reporting accuracy of the day, means there were probably at least four times that many.

Brakes on many bikes in the 1890s were an option; often costing extra and were not very effective. So what did the early cyclists do to make a stop? He got off the bike as quickly as possible. Men had it more difficult than woman with their drop-frame models. Some put the sole of the shoe against the front tire to slow the machine. Dismounting was a regular part of the training in the riding schools.

## The Bicycle and the Women's Movement

*[T]he bicycle will accomplish more for women's sensible dress than all the reform movements that have ever been waged."*  
~ Demerarest's Family Magazine, 1895

It was no accident that the woman's suffragette movement and the bicycle came together to work as a team.

In the Victorian era before the advent of the bicycle, American women were expected to be morbid and stay indoors - evidence of the lack of freedom and equality. A bicycle was a blessing, because it brought the exhilaration of motion driven by your own power. Can you imagine how exciting that must have been for women to ride a bike in those days?

The bicycle helped give women their liberation from domesticity and isolation, and more importantly gave women independent mobility without a male escort required by the conventions of those times. (Today, it seems both laughable and sad that our society felt that a woman required an escort. Indeed, some cultures still require this.)

Finally, the bike gave women freedom from the restrictive heavy clothing of the times. In the 1850s, dress reformers like Amelia Bloomer had been determined to change clothing styles for women, but these efforts fizzled out because of masculine scorn. The end result was that women continued to be weighed down with yards and yards of heavy material that swept the floor gathering dust and dirt.



The Rational Dress Society of 1881 helped a bit by saying no woman should have to wear more than seven pounds of underwear!

The bicycle finally gave woman the logical rationale to make clothing changes. Some women maintained that if they did not seize the opportunity to change to "rational dress," they had no right to ask for other privileges that had long been denied them.

So, bloomers came about, complete with the scandal that the exposed ankle might overly excite the males (which sounds very similar to the rationale behind clothing restrictions for women in other parts of the contemporary world!).

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By 1895, along with the bicycle, bloomers were a hit, and the Suffragette movement got a boost. Hoorrrayyy!

Unfortunately, it still took another 25 years for women to gain the ability to vote in the US.

But in the 1890s, the bicycle, and the bloomers required to ride them, was major progress. As one bicycle-and-bloomer freed woman said, "I can't see but that a wheel is just as good company as most husbands .... Another great superiority of the bicycle lies in the fact that you can always get rid of it when you wish. You can stand it in a corner and there it stays. It will not insist on receiving attention at inconvenient moments. ....when it's shabby or old you can dispose of it and get a new one without shocking the entire community."



About custom seats. A wooden seat was covered with an inch thick modeling clay overlaid with a silk cloth to prevent soiling cloths. The cyclists pedaled for 15 minutes during which time their form would be worked out on the clay. A cast was made and a saddle was made from felt padding and covered by pig skin or seal skin. The delicate nature of the process made it necessary that a female attendant would be present when ladies were imprinting their "peculiarities."

## **Bicycle Firsts**

The bicycle movement produced advocate and industrial groups that improved society and their lot simultaneously. Some of the 'firsts' are listed below.

- ◆ First to lobby for better roads.
- ◆ First industry of any size to resort to assembly line techniques for mass produced vehicles - an approach copied by Henry Ford in the auto industry.
- ◆ Pioneered testing of their products.
- ◆ Improved metallurgy to make lightweight steel tubing.
- ◆ Improved ball bearings.
- ◆ First to develop satisfactory brakes.
- ◆ First to be equipped with dynamos to provide electric lights.
- ◆ First for the invention of pneumatic tires - a major invention. .
- ◆ The use of an annual bicycle show to generate publicity, again setting the trend auto makers.
- ◆ Pioneered the initiation of new sales techniques.
- ◆ First to grant guarantees for their machines.
- ◆ First to create the system of planned obsolescence to stimulate sales, used afterwards by many industries.
- ◆ Concealed models until they could be unveiled at shows.

Cycle touring groups produced other contributions that you may recognize as commonplace today.

- ◆ First to make use of road maps.
- ◆ First to develop road signs.
- ◆ First to issued regular reports on road conditions.
- ◆ First to list approved hotels and taverns for travelers.

This emphasis on the success of bicycling in our fairly recent past has had a huge impact on our present day circumstances.

## **Recommended Reading:**

*Degrees of Self Powered Mobility* by Ivan Illich, Philosopher and Social Critic.

<http://ournature.org/~novembre/illich/misc/energy-and-equity.html#chapter8>

Ivan is very pro bike. Bikes speeds to him are regarded as optimal. On first reading, his philosophy doesn't make much sense given our present consciousness. But by going thru the daily process of life, bits and pieces of his philosophy surface and make one think.

## **Editor's Note:**

Additional installments of this series written by John Tetz will be published on the 15th of each month. Should you wish to ask John any questions, please address them to:

**Morris Area Freewheelers Bicycle Club: Forums: Alternative Transportation Vehicles**