

The Paver and the Plow

In the latter half of the 19th century, the population explosion after the Civil War spilled out into the vast expanse of the Mississippi River Basin. Out on the Great Plains, the rich from around the world invested in the railroad that let them harvest the buffalo. When the buffalo were gone they replaced them with cattle. The poor folk took their 160 acres and tried to make a go of it. Their most important tools were a pair of horses [one horse wasn't strong enough to break the sod], a steel plow if you could afford one, or a plow point [the hardened steel tip for a wooden plow]. Where the railroads met the Mississippi, cities grew, and they plowed the river basin to grow the food for a rapidly increasing population. Out on the plains the farmers with the best land prospered. Horses were gradually replaced with tractors and ever more grassland was plowed into wheat fields. During WW1, the price of wheat was subsidized because we were feeding much of the world at war, and production increased as fast as they could build tractors. After the war the subsidies disappeared, and the price of wheat dropped to the point where the only way to make a living farming was to increase production. They plowed under ever more of the Great Plains until there was far more wheat than there were people to eat it and the price of wheat dropped to almost nothing. Meanwhile, cattle grazed the grass on the dryer portions of the Great Plains shorter and shorter.

Then the local climate changed just a bit and most of that plowed land blew away. It took less than a century to turn much of the Great Plains into a dust bowl. Those with the money to stick it out or take it over turned to new developments in wells and pumps, and now the Great Plains are green with the water from the Ogallala Aquifer. When we pump it dry, what will become of the Great Plains?

When the westward expansion reached the Rocky Mountains, rich and poor alike harvested the timber, the metals, the beaver, and the water. Without the timber and the beavers, much of the life in the valleys was washed away, and the runoff from the mines poisoned much of what was left. When the pickings got thin, the expansion moved on to the oilfields of Oklahoma and California.

Meanwhile, in California, the gold rush brought in men from all over the world. As the money brought in by all that gold built San Francisco and a lot of smaller towns, they plowed California's Central Valley to grow the food for a rapidly increasing population. California's Central Valley was a vast expanse of marshes and grasslands fed by the many rivers of the Sierra Nevadas. It only took a century to turn one of the world's most verdant wetlands into a vast expanse of dry and dusty plow pan.

"After crossing the river we entered a large vineyard of wild grapes and an infinity of rosebushes in full bloom. All the soil is black and loamy, and is capable of producing every kind of grain and fruit which may be planted. We went west, continually over good land well covered with grass". Father Juan Crespi, 1769. The Los Angeles River Basin was excellent farmland. In the first half of the 20th Century they built canals from the Colorado River and the Owens River, and the valley was soon covered in hay, grain, olives, citrus, avocados, and all manner of other crops. The L.A. basin became one of the most prolific agricultural Edens in human history. After WWII, Los Angeles began to fill in with people, and by now almost all of the entire Los Angeles River Basin is paved.

Climate change and human degradation are rapidly decreasing the amount of land available for agriculture. Much of what we rely on now is critically endangered by the

fragility of Monsanto's herbicide, fungicide, and pesticide dependent monocrop GMO. Much more is dependent on rapidly depleting aquifers. The water pumped from some of the world's aquifers is poisoning farmland with salts. The runoff from flooded cities and industrial factories often ends up on farmland, covering them with a very toxic sludge. As garbage disposals, sewers, and landfills consume the leftovers of the harvest, the many trace minerals that we need for optimum health are not being replaced by commercial fertilizers. Consequently, much of the food on our supermarket shelves is empty calories with little more taste and nutrition than cardboard. Throughout the world, much of our farmland has been blown away, washed away, poisoned away, and harvested away, but a substantial amount of the best has been paved over.

Most big cities evolved outwards from the most fertile land. The back yards of suburbia are a vast resource of farmland, although herbicides, pesticides, and salt have poisoned much of it. If we clean up the streets, they're an excellent way to concentrate the rain and snow. It's always greener alongside roads without curbs. Currently, pavement and curbs are channeling a very large portion of our rainfall into the ocean instead of our farms, gardens, and aquifers. We need a million little curb cuts to water a lot more small farms and gardens.

Cleaning up our farmland first requires that we quit dumping more toxins on it. In everything we buy, use, and dispose of, we need to assess its environmental impact. We need to confront our deadly addiction to cheap energy, and the resource depletion and pollution that come with it.