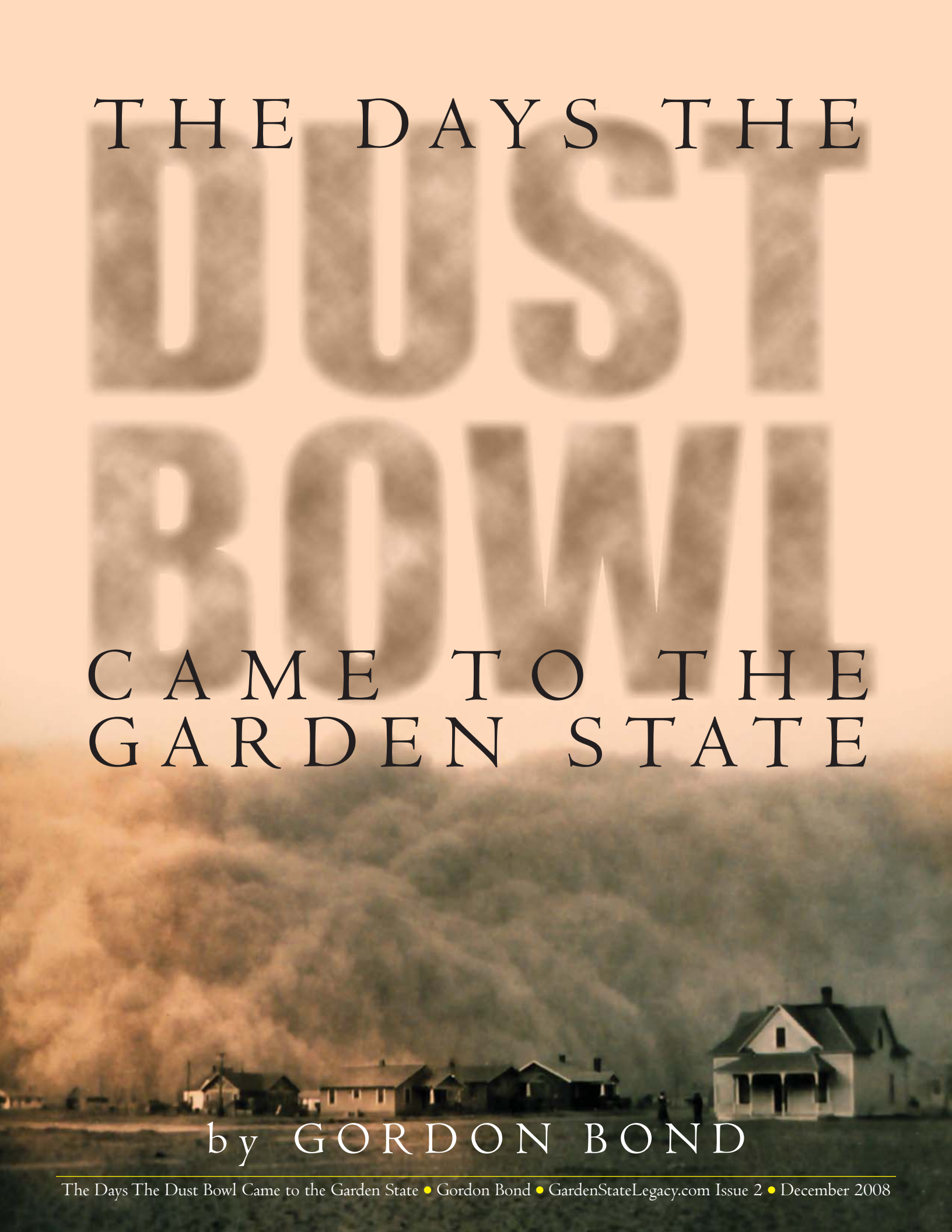
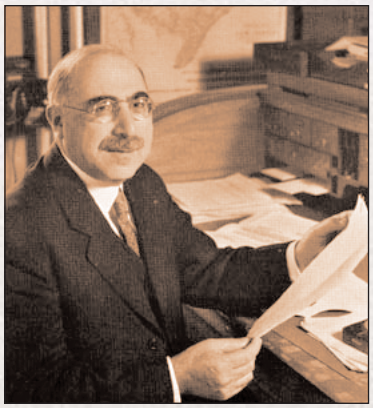
THE DAYS THE DUST BOWL CAME TO THE GARDEN STATE



by GORDON BOND

On May 11, 1934, Dr. Robert C. Clothier, president of Rutgers University, announced a one year's leave of absence for his dean of the College of Agriculture, Dr. Jacob G. Lipman. Beginning on July 1st, Dr. Lipman was to direct a vast effort by the U.S. Department of Agriculture to inventory the soil fertility of the entire United States of America.

The Russian immigrant was an excellent choice. He had earned a reputation as one the world's foremost soil scientists, having received his B.S. from Rutgers in 1898 and a Ph.D. in Agricultural Chemistry from Cornell in 1903. Though he was still working on the degree at Cornell, Rutgers thought enough of his work to have tapped him to develop their new agricultural program in 1901.



Whether you made your living from the land or just grew a couple tomato plants in your backyard, the importance of the quality of the dirt was long-understood. Yet Lipman managed to elevate what had been an art into a vital science. In 1916, he founded an internationally recognized journal, *Soil Science*. His career was distinguished by his efforts to establish the discipline.

According to the announcement that appeared in the *Daily Home News*, the task he was to undertake that July was "[o]ne of the largest projects ever undertaken in the field of soil science, the major objective of the inventory will be to provide a new and more accurate basis for determining national policies for use of land for agriculture, forests, recreation and other purposes and to point the way to a more effective conservation of the plant food resources of soil."

The job was about more than academic accolades, however. It would not be hyperbole to say that the fate of the United States rested on the success or failure of such undertakings by such men. The point was to inform federal government policy regarding the use of the land—and, hopefully, to steer us out of the worse ecological disaster of the 20th century.

Homestead

The "dust bowl" reads like the quintessential American fable. Indeed, it was the creative fodder for the classic book (and later movie) "The Grapes of Wrath" and "Of Mice and Men," by John Steinbeck. But its roots are buried in even deeper aspects of the American mythos. Right from the start, even before the American Revolution, those who sought to command the resources of the New World used promises of land to lure would-be settlers. The agricultural utopia envisioned by Thomas Jefferson was based on this concept of the yeoman farmer. Despite the rise of Hamiltonian market paradigms, the post-Revolutionary United States was still largely a rural place into the 19th century.

As early as the 1840s, there was a push by Jacksonian Democrats to codify the methods by which a new generation of settlers would be encouraged to fulfill what many saw as America's "manifest destiny." The Preemption Act of 1841 permitted squatters on government land who were heads of households, widows, single men over 21 (so long as they were citizens of the United States, or intended to become naturalized) and who had lived there for at least 14 months, to purchase up to 160 acres at the very low price of $1.25 per acre before the land was offered for sale to the public. The states of Ohio, Indiana, Illinois, Alabama, Missouri, Mississippi, Louisiana, Arkansas, and Michigan were admitted to the Union as a result and settlers made use of it in the Kansas and Nebraska Territories, which were opened to settlement in 1854.

By the 1850s, the concept evolved into what would become the Homestead Act. But it would be delayed by the fears of southern states of new competition to their plantation system. Once they seceded during the Civil War, however, their objections were no longer an obstacle. Pushed by radical reformer George H. Evans and publisher, Horace Greeley ("Go West, young man, go West and grow up with the country."), it was signed into law by President Abraham Lincoln on May 20, 1862. It gave applicants freehold title to

between 160 and 640 acres of undeveloped land outside of the original 13 colonies. The process was simple enough—file an application, improve the land, and file for deed of title. Even freed slaves could apply.

And so they came. Wave after wave. It was the classic American story—hardy settlers, seeking a better life for themselves and their families. True, the work was hard, but it was honest. The prairies, with their seemingly endless acres of fertile soil and big skies, offered up opportunity to a man who was willing to get his back into his living.

Drought

In its simplest terms, the cause of the Dust Bowl was was drought. But drought in of itself wasn't to blame. Indeed, such dry periods were nothing new in the hundreds of thousands of years of natural history on the semi-arid North American High Plains. They are balanced by wet spells and it's this alternating of dry and wet periods—and even wildfires—that support the shortgrass prairie biome that evolved the ability to thrive there. The root systems of these grasses held the soil and moisture in place in the face of the high winds that are the norm—only the coasts see winds as strong, blowing off the unobstructed vastness of the oceans.

To farmers and cattlemen, however, such grass just got in the way. So they cleared the land to make way for the wheat and grain that could fetch a good price or feed livestock. Perhaps, it has been argued, larger farming interests might have been able to employ smarter long term cultivation practices. But it wasn't always efficient for the kinds of small farmers lured by the promises of the Homestead Act. They were further encouraged by the bounty brought on by an unusually prolonged wet period in the 1920s and the hyper-demand for grain exports to Europe during the First World War. The amount of land under cultivation tripled just between 1925 and 1930 alone. Migration west was further driven by the crash of Wall Street in October of 1929. Families hungry for work fled the increasingly acute effects of what would be called "The Great Depression."

The last ingredient in this "perfect storm" came the following year as the ecological pendulum swung back again and the droughts started once more in earnest. They killed crops ill-suited to the change. Such failures not only hurt the farmers who relied on a harvest for survival, but further left the fine topsoil exposed to the winds—and this time, there was almost no prairie grass to hold it down.

"some really serious thinking"

To residents of New Jersey, the prairies were a world away. In 1934, the railroads were still the primary means of getting into the interior of the country and could take several days. Airplanes were still something of a novelty and rural roads were abysmal. Though in its waning days, the west was still wild and cowboys still drove herds across the plains. The American midwest was still a remote, abstract, almost exotic concept for those "back east."

Nevertheless, newspapers and newsreels gave us a hint that something had gone terribly wrong out there. On May 11, 1934, *The New York Times* ran a front page article reflecting a bleak forecast for the winter wheat. The U.S. Department of Agriculture predicted a yield of 461,471,000 bushels—over 30,000,000 bushels less than the ten year average of 632,061,000. "Today's crop report took no account of the increasing severity of the drought during the past ten days," the story warned, "during which the rainfall throughout the principal wheat-growing sections has been less than a fourth of normal." Indeed, it was the driest season on record since 1885.

The next day, the Friday evening edition of *The Elizabeth Daily Journal* for May 11, 1934 reported how "[a]pprehension over middle America's crop prospects grew hourly" in the face of a huge dust storm that had descended on Chicago and seemed to be continuing east. The administration of Franklin D. Roosevelt attempted to calm fears of famine—something Europe had seen recently. They "asserted there still should be enough food to go around." Agriculture Secretary Henry A. Wallace was quoted, however, saying that while "[t]here is certainly no immediate danger of food shortage of any kind in this country...if this drought continues, it behooves all of us to do some really serious thinking."

There was something almost biblical about the stories coming out of the nation's interior. Drought

and the vague fears of famine were only the half of it. Vast dust storms—"black blizzards"—were swallowing whole towns, choking out entire herds of livestock, derailing trains. It was easy to perhaps dismiss such claims as exaggerations. Sure, things were bad out there—but could they really be *that* bad?

On May 9, 1934, out in the northern prairies of the Dakotas and Montana, the winds began to march east, drawing up the land—as if it were insulted not to be believed in. Building, broiling, reaching for the jet stream, the several whirlwinds had merged into one huge mass. By the time it rolled into Illinois and Ohio the next day, pilots were forced to strain their prop-driven airplanes to their uppermost limits, topping out at around 15,000 feet—and still they were unable to escape its apocalyptic grasp. It was estimated that this one dust storm transported three tons of dust for every American alive that day.

Chicago was the first major urban center to get dumped upon—some 6,000 tons of prairie fell that night. As the sun rose, Scranton, Pennsylvania, Boston and New York found the once bright, clear day choked away as dust fell like snow.

On May 12, 1934, *The Asbury Park Evening Press* featured a photo of an obscured New York skyline under the headline, "Clouds Of Dust From West Cast Pall Over Seaboard."

"Clouds of dust, thousands of feet high," the article read, "which arose in the parched fields of the Northwest as far off as Montana cast a gloomy pall over the shore yesterday and filtered the rays of the sun in a half-light similar to that of a partial eclipse of the sun."

It was estimated that "300,000,000 tons of what used to be topsoil in the Mississippi and Missouri river valleys had been swept aloft by a strong northeast wind and liberally sprinkled over half of the country."

New Jersey seems to have been luckier than its neighbor across the Hudson. "Locally, residents were fortunate in that the dust rode high," *The Asubury Park Evening Press* continued. "Very little irritation was caused and the phenomena was looked on rather as a nuisance. In New York, the dust settled somewhat and annoyed people with throat afflictions."

Indeed, they made a point of noting that the dust "will not materially effect a weekend of fair and cooler weather."

The New York Times headline, however, read "HUGE DUST CLOUD, BLOWN 1,500 MILES, DIMS CITY 5 HOURS." In Manhattan, street lights came on, tourists on the observation deck of the Empire State Building could hardly see more than a wall of haze and life ground to an astonished halt. It was estimated that only 50% of the normal amount of sunlight fell into the city. As Timothy Egan, author of "The Worst Hard Times" pointed out, New York in 1934 was a dirty place to begin with. An average day saw dust measured at 227 parts per square millimeter, enough to bother people with health problems. The day the dust fell, however, the readings at their height were 619 parts per square millimeter. Doctors' offices and hospitals were clogged by sputtering, coughing New Yorkers seeking something to clear their lungs and sooth irritated eyes. NBC radio changed their studio air filters hourly.

At its height, the storm covered some 1,800 miles wide, reaching from the Great Plains right out into the Atlantic Ocean. The captain of the cargo ship *Deutschland*, seeing the billowing clouds obscuring the skyline, delayed coming into port, unsure what catastrophe had befallen the city.

If anyone in the metropolis doubted the magnitude of the crisis out in the faraway world of the homesteaders, here it now was in a thick coating, quite literally on their doorsteps.

"something had gone wrong with the land"

Dr. James H. Kimble of the National Weather Bureau told *The New York Times*, "[t]he explanation of the dust cloud is simple. The surface soil in the upper Missouri and Mississippi Valleys was fine and loose as a result of the drought. All that was needed was a persistent and direct wind."

The human factor in the tragedy had yet to be accepted for a number of reasons. One was inherent in the character of the people who would even consider chancing their hand at a High Plains farm. It takes a strongly independent, hardheaded bravado to take on such a challenge. These were people who

didn't take kindly to being told what to do with their land—land that they worked with their blood sweat and tears. They took pride in their obstinacy. They were *Americans* who, like the first settlers and pioneers, didn't give up easy in the face of adversity. Let the winds howl. They'd just dig in, hold on and growl right back! Under the right circumstances, such spirit would be laudable. In 1934, however, it was such hubris that was killing them.

Some who had made a study of the soil got it. They could see that the real cause of all this misery was human misuse of the land. The farmers weren't bad people. Most simply didn't know better—a combination of pride and ignorance. What was needed was to inspire a wholesale change in attitudes and practices. The inherent resistance was weakening, however. Broken men loaded their families and what possessions they could onto cars and turned their backs on the prairies. Others wanted to hold on but desired some guidance. It would be people like Dr. Lipman from Rutgers who would try to help them find their way.

Where Lipman worked on the local level, however, Hugh Hammond Bennett found a larger stage. Both men, however, spent their careers advocating for soil conservation. Born near Wadesboro in Anson County, North Carolina and graduating from the University of North Carolina in 1903, Bennett became a soil surveyor conducting studies in the United States and abroad. What he saw convinced him soil erosion was a serious problem facing the planet as a whole. He would advocate for soil conservation in articles appearing in everything from scientific journals to *Country Gentleman* magazine. In 1933, when the Soil Erosion Service was established as part of the United States Department of the Interior, Bennett was the obvious choice to be its Director. He would become the strongest voice in the Roosevelt administration asserting a new agricultural policy was the only thing that could save the day.

The dust bowl would visit the east coast one more time in a fashion worthy of a Hollywood movie. On April 19, 1935, Bennett walked into Room 333 of the Senate Office Building in Washington D.C. to try and sell his schemes of what amounted to an ecological "New Deal." Rather than quitting the land, farmers would be encouraged to become part of the solution by forming community farms that followed strict soil conservation practices, by building natural barriers to the spread of dunes, by creating man-made lakes and holding tanks for water. He had been given $5 million in federal money to fund his Soil Erosion Service in 1933, but he saw a more permanent future for this temporary expedient.

The east coast visit by the dust bowl in 1934 helped him make his case. "When people along the eastern seaboard began to taste fresh soil from the plains two thousand miles away," he said, "many of them realized for the first time that somewhere, something had gone wrong with the land."

As he settled into his presentation, with his charts and maps, many senators' eyes glazed over. He was losing them. But then, an aide whispered in his ear. He began to digress and stall, repeating facts, reminiscing about farming techniques learned on his daddy's North Carolina farm. And then, as if on cue, though midday, it began to get dark outside. Another massive dust storm had caught the jet stream to the east coast. "This, gentlemen, is what I'm talking about," Bennett told the startled senators. Pointing out the window, he declared, "[t]here goes Oklahoma." Within a day, Bennet had funding to make his Soil Erosion Service a permanent fixture of the United States government—one he would head until his retirement in 1951. On April 27, 1935, the soil conservation act passed. The healing would begin.

Obviously, the mere taste of the Dust Bowl New Jersey and the northeast received was nothing when compared with the hardships suffered by those in the thick of it. Nevertheless, the days the Dust Bowl came to the Garden State marked a turning point, not only for stemming the tide of the "dirty thirties," but shaping the idea of conservation in the United States as a nation.

Inspiration for this article came from "The Worst Hard Time" by Timothy Egan, 2006, Houghton Mifflin Company. It was also used as a source for many of the facts. I would highly recommend it to anyone interested in a broader understanding of this period of American history! The images used in the background of these pages are taken from Wikipedia and are now public domain.