

Plague. A word that has struck fear in the hearts of man since the earliest of times. It has also led to some of the greatest historical events and stories of our time. The ancient cities of Rome and Athens, in their downfall, were finished off by pestilence. The Bubonic Plague, also known as The Black Death, devastated Europe in the 14th century, starting a new age. The great warrior Ivan the Terrible was stricken with disease, and driven mad. During the "exploration" of the new world, Cortes's greatest ally against the Aztecs was smallpox. Napoleon's Grand Army was defeated by the Russians, and typhus. Queen Victoria spread hemophilia to her heirs, leading to the illness of the only son of Czar Nicholas, and the fall of monarchy in Russia.¹ All the events are horrible in every way, but have struck a chord with people around the world. Perhaps it is our inherent morbid curiosity. So, the question is, if these events happened once, why can't they happen again?

Let us take a look at the most horrible, so far, of the plagues: The Black Death. It took Europe by storm from approximately 1345 to 1361. It would also make small comebacks throughout the next 400 years, but never like it did the first time. It also reached into Africa, China, Russia, and the Scandinavian countries. It was truly a worldwide pandemic. But, it has a secondary effect that not many people are aware of. The colonies of Greenland, settled by the Vikings, were stricken by the plague and they soon disappeared. It is known that these colonies kept in contact with "Vinland", which was near New Foundland, in Canada. The Vikings had already discovered North America! But, alas, with these colonies all dead, Greenland was forgotten, and not discovered again until 1585.² It is estimated that the plague took 24 million lives, about a quarter of the European population. This may seem incredulous to people today, but it happened. During those times, where there were humans, there were black rats. And where there are rats, there are fleas. And where there were fleas, there was the plague. Bubonic plague, and also pneumonic plague, were everywhere. France, Italy, Russia, England, you name it. When a village was infected, people fled, most likely taking the plague with them to the next village.³ One can only imagine what the people of that time thought. In those days, the church was the controlling influence. So, they probably thought it was the wrath of god. And with wraths of god, comes the need to search for scapegoats. And the main scapegoats were the Jews. They were accused of infecting town wells, and spreading imaginary poisons from city to city. For these "crimes," they were burned, hung, stoned, etc. Also, specific scapegoats were found and killed in every city. Mass hysteria gripped the known world. Then, it slowed down. It didn't stop, and it wouldn't for many years, but it slowed down enough for society to get back on its feet. And society now had a new outlook on life. The all-powerful Catholic Church still wielded some power, but not what it previously had. Europe was ready for a change. So, if you're an optimist, you might say that the plague gave Europeans a fresh start.⁴

And while we are on the subject of the past, I shall relate another story of a strange disease and its effects on history. In the opening, I mentioned the destruction of Napoleon's Grand Army at the hands of typhus. Let's delve a little deeper into that event. In the spring of 1812, Napoleon had reached the height of his power and glory. His empire spread eastward to the Russian frontier and to Austria. Two of his brothers were kings. His 3 sisters all sat on thrones in one sense or another. His first son was Viceroy of Italy. And Napoleon himself was currently married to the great niece of Marie Antoninette, and their first child was immediately named King of Rome. Napoleon was on a roll.⁵ Given time, patience, and some luck, he might have been able to extend his empire to the East, and force those pesky British into isolation, cutting them off from any matters in Europe and Asia. But these

dreams would go unresolved. Because of something Napoleon could not see.⁶

In June of 1812, in eastern Germany, Napoleon massed a force of 368,000 infantry, 80,000 cavalry, 1,100 guns, and 100,000 reserve infantry. He now outnumbered the Russian forces. With the Russian's defeat, Napoleon could boast being in control of most of Europe. But only 90,000 of the central army reached Moscow. And the rest was destroyed in the retreat. Why? As the Grand Army marched to Russia, they had to pass through Poland. Poland was filthy and dirty. Most of the army was undisciplined, and pillaged villages, making themselves sick in the process. In the third week of July, Napoleon had lost 80,000 men, most to disease, and some of those to typhus. Since typhus was transmitted through lice, soldiers could carry them on unwashed clothing without even knowing it. The Grand Army was a walking death trap.⁷ As typhus raged on, Napoleon was down to 130,000 men by September 5th. On the 14th of September, he was down to 90,000 men as he tried to seize Moscow. But he found Moscow empty as the citizens had fled, and the Russian army had marched south to cut off supplies. Napoleon received 15,000 more men, but 10,000 would end up dead as the "Grand" Army would have to retreat from Russia. By the time Napoleon's army returned, it was 25,000 weak. Less than 3,000 would be alive the following summer. Typhus had done its worse.⁸

"Okay," you're saying, "The only reason those things happened is because people lived with rats, and built dirt houses. This is the 90's! It can't happen now!" Oh yeah, now read this: Scientists can't stop everything that comes along. And you would be surprised what comes along. In the 60's and 70's of the 20th century, health officials figured they had beaten diseases. Smallpox, polio, tuberculosis, cholera, malaria; all were beaten or close to it. Humanity's deadliest enemies were nearly wiped off the Earth. Then, just 2 decades later, HIV, Ebola virus, Marburg virus, Lassa fever, Legionnaire's disease, hanta virus, hepatitis C, and more to come. Most of these scourges came from newly inhabited areas, like the rain forest. And then our underfunded prevention programs allowed TB, yellow fever, cholera, and even the plague to make a major comeback.⁹ So, are we defeated? Are diseases ready to make the kill? The fact is that they could, but the probability factor is low. The Center for Disease Control (CDC) works very hard to be prepared for anything. And if, lets say, Ebola virus broke out in Virginia (which it did), they would be on top of it in a second, quarantining the area, then trying to treat the people. The so-called "Hot Zone" in Virginia was contained. But what if it wasn't? What if it grew unchecked? Well then, contrary to what was portrayed in the movie *Outbreak*, our government would, in my opinion, totally destroy the area, most likely with the vacuum bomb, without a second thought. The president would give the orders, and they would be carried out. Be compassionate, but be compassionate globally would be the motto. And no one could disagree.

Another question is, where are these diseases coming from? Well, as we explore the rain forests, or any previously uninhabited area, the risk is high that we will find something. Although it might be something we don't want to find. Hey, its happened before. When the white man first infiltrated Africa, he found tsetse flies, malaria, and yellow fever just on the coast. As he tried to move inland, more killers emerged.¹⁰ In 1816, Captain James Tuckney tried to explore the River Congo. His expedition was attacked by fever and vomiting. 18 died. In 1832, Major A. M'Gregor Laird went to the Niger Delta. By the 12th of November, all men were down with fever. By the 14th, 1 of the men was fit for duty. 9 survived.¹¹ In 1841, Cap. H.D. Trotter took 145 whites, and 158 blacks on a massive expedition to Niger on 2 boats. After all was said and done, every white was sick and 50 were dead. Not one black died. There were dozens more of these disastrous treks into Africa. The results of these trips, whites dying and blacks surviving, led to the erroneous medical belief that whites could not work without getting sick,

so only blacks should work.¹² This still lead to white deaths, but also racism. These treks usually ran into malaria, yellow fever, and sleeping sickness. And once these scourges were introduced to Europe and America, they couldn't be stopped, and ran unchecked for years. So now we are doing the same thing in the rainforests of Brazil.¹³ What was that old saying, if we don't learn from the past, we are doomed to repeat it?

So, will mankind cause a great plague across the world? Maybe not. Let's look at a strange case of fever in late summer, 1968. A mystery disease struck at the Oakland Public Health Center in Pontiac, Michigan. Within 48 hours, 95% of the center's employees were sick. Patients and visitors also came down with it. The CDC sent two 3 man teams in.....all 6 became sick.¹⁴ One week after all this started, the building was sealed off. Sick epidemiologists became well again and started to investigate. It was eventually decided that the disease was airborne.¹⁵ State experts came in and used special "vacuum" machines to suck the air for bacteria, and then took swabs of everything.....negative. When the victims recovered, they returned to work. Some were stricken again, some not. "Pontiac Fever" was not highly communicable. About a month later, in August, precautions were relaxed, and a doctor investigating the disease, Dr. Gregg, took off his mask. He was promptly infected. After he recovered, he started studying rat and bird droppings in the center. Neither the CDC nor the MHD (Michigan Health Department) could suggest clues.¹⁶ Dr. Gregg rushed 90 lab animals, of which only the guinea pigs developed pneumonia. He then examined the pig's lungs, and found a bacteria that only could be cultured in egg yolk. Dr. Gregg now became convinced that the infection source was in the air-conditioning system. When he investigated the basement, and cut one of the ducts, he found a pool of filthy water. The dirty water was definitely the agent, although after 2 years, no specific infectious agent was found. Pontiac fever has not been seen since.¹⁷

We were lucky that Pontiac fever was not fatal. It was just a very bad kind of flu. Actually, the US army's biological warfare branch was very interested in finding out what caused the fever. Pontiac fever was non-fatal, fast-moving, and debilitating, just what the army likes. Although they like that, they wouldn't be above using something that was fatal. And that brings us to another killer.....our government.

Do you realize how much land the government owns out in California, Arizona, Oregon, etc.? I hope you do, because I don't. I can't seem to find it anywhere. Oh well, I say its too much. Most of that area is uninhabited and impossible to live on, so its a perfect spot to carry out little experiments that the American public wouldn't be to happy about. Do I know any of this? No, but I can voice my opinion. I say as long as the government keeps its little diseases out of my way, its okay with me. But, I fear if they are not careful, the American people will be feeling the breath of the Grim Reaper on their faces. And the Reaper doesn't brush regularly. For some reading on a subject like that, read Stephen King's The Stand. 1,000 pages of sheer brilliance, and an eerie prediction.

So, let's say that the exotic jungle diseases never arise, the government keeps its secrets in its labs, and our scientists keep current diseases in check. We'll be safe, right? Wrong! Look at a "normal" disease we take for granted, like the flu, or pneumonia. Flu kills 2,000 a year, and pneumonia kills 65,000 a year, and that's just in this country. Pneumonia is extremely deadly when it infects both lungs, mostly killing people under 14 and over 75.¹⁸ Legionnaire's disease was a type of pneumonia that raged through the Legionnaire's convention in Philadelphia in 1976, killing people. And look at the flu. The flu comes in many different varieties, Types A, B, and C. In the early part of this century, the flu ran throughout the world, killing some 22 million people. That was Type A flu. Type B also causes epidemics, but mostly in schools. Type C is uncommon.¹⁹ And doctors are ineffective in treating the flu. A Type A vaccine won't protect you against Types B or C,

and new types of A and B emerge each year. And scientists are waiting for the next big flu pandemic to sweep the world. They know it's coming, and it's coming soon. Hey, it could even be this year. Flu pandemics usually start somewhere in January or February. So, next time you come down with a case of coughs and the chills, watch out. You may be in the middle of a epidemic.²⁰

Well, by this time you're probably feeling very depressed, and maybe a little paranoid. Good, my work is going well. And I'm not done yet.

Now that I've run down specific incidents and possible incidents, let's take a look at statistics for diseases that are curable! Cholera kills 120,000 a year. Diphtheria kills 8,000. Hepatitis C infects 100 million. Malaria kills 2.7 million a year. Tuberculosis infects 22 million worldwide.²¹ What are we doing? Not a very good job, I'll wager. If we can't stop diseases that can be stopped, what are we to do about ones that we can't? It's like letting the little kid beat you up because you feel sorry for him.

Well, my journey through the darkest of man's fears is done. I have gone into the pits of hell and come out unscathed. Actually, I haven't, but it sure does sound good. I hope to have entertained you through this paper, and given you something to chew on for a few weeks. And I have just one more thought. When people think of the end of the world, they think of a big mushroom cloud destroying everyone in a pillar of light. But, I just don't see that. I see something less spectacular. When the end comes, it won't be with a bang. No one will see it coming. An army of the smallest soldiers will attack us from the inside out. One-billionth of our size, and they'll beat us.

BIBLIOGRAPHY

1. Abel, Ernest L. *America's Top 25 Killers*. Hillside, N.J.: Enslow Publishers Inc., 1991
2. Archer, Jules. *Epidemic!* New York: Harcourt Brace Jovanich, 1977.
3. Berger, Melvin. *Disease Detectives*. New York: Thomas Y. Crowell, 1978.
4. Cartwright, Fred F. *Disease and History*. New York: Thomas Y. Crowell, 1972.
5. *Guerrilla Warfare*. "Time: Frontiers of Medicine." Vol. 148, No.4, Pg. 58-62.
6. McNeill, William H. *Plagues and Peoples*. New York: Anchor Press/Doubleday, 1976.

