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Curisoity of the day:

Why Is the Statue of Liberty Green?

Even if you have never been to New York harbor, you have probably seen pictures of the famous Statue of Liberty, rising up in green splendor over the waters, and holding forth her torch, lighting the way for freedom for man, because man was made by God for liberty and not for slavery.

Lady Liberty wasn't built in the United States. It came here in 1884 as a gift from our friends, the French. But it wasn't made in 1884, either. The sculptor Auguste Bartholdi began to construct it nineteen years earlier, in 1865. He was doing so to commemorate one year after President Lincoln had declared that all slaves in the Confederate States were to be free – the so-called Emancipation Proclamation.

It took all those years for Monsieur Bartholdi to build this massive and beautiful monument, and to build it so that it would not topple over, or collapse under its own weight, or crack at Lady Liberty's arm thrust forth. When it was done, it had to be taken apart and brought to the United States by ships, in 214 pieces, and then reassembled on a small island in the harbor of New York. Her crowned head and her grave face and her uplifted torch would be the first things they would see, and they said, without words, "Here is that happy place where a man may think what he will, and say what he thinks, and live his life in freedom within the law."

You must not think that it was easy to reassemble her. First the men had to build a foundation for her to rest upon. Take a look at the famous Leaning Tower of Pisa, which rests upon the soft soil of a city near to the shores of the Mediterranean Sea. It leans because it is heavy, and the ground beneath it is giving way on one side. If the men had put Lady Liberty on the earth, without a deep foundation, and without the massive pedestal she stands on, she would quickly have become the Leaning Lady Liberty, and then the Lying Down Lady Liberty, with the spikes of her crown stuck in the ground, and squirrels hiding their nuts in her ear, and suchlike.

Then they had to get the pieces together, and that meant they had to erect an enormous set of scaffolds for the workmen to climb and work upon. Still, what could you do, hundreds of feet in the air, with a piece of metal as big as Lady Liberty's face? Can you imagine passing, from one man to the next, dangling on the edge of a skyscraper, a train car full of scrap metal? I can't, either. The pieces had to be hauled up there by enormous machines, which in those days did not work by gasoline engines, but by pulleys and other devices that the ancient Romans and Greeks had too; and of course the men did have to be very strong.

How big is she? I could give you the numbers,

but it would be more fun, I think, to have you see it instead. Ask your father or another grown man to stand up. Look at his nose. It is about the length of his little finger. Imagine then the same man, but now only the size of his nose. I know this, because I'm looking at a picture of Lady Liberty's detached face, and grown men standing next to it. Now take that same man, a complete man but only the size of his nose, and put him down on the floor next to the real fellow. Still that doesn't quite show how gigantic the whole monument is. Ask your father to stand on a chair, and raise one arm high above his head, to hold the torch. That is how tall she stands.

When Bartholdi began to cast and hammer the metal that would make the statue, it wasn't green. It was bright orange-red, the color of copper, and that's because the Statue of Liberty is made out of a copper alloy, bronze. This too is a material that the ancient Romans and Greeks knew well and loved. Bronze has a couple of big advantages over iron. It's lighter, so it's easier to work with. It can be molded and pounded into shape without having to be made white hot first. And it turns green.

"The Statue of Liberty will look the same in three hundred years as it does now. But most of the modern buildings you see around you will be rubble and dust, because they are made of materials that will not last."

I'm not just talking about the color, there, but the substance that makes it green. When copper is exposed to the oxygen in the air, and to other substances in the air, like sulfur, it reacts with it and forms new substances on the outside, copper oxides and copper sulfates, and these are green. They are also very thin and very hard. If you leave an iron nail out in the rain for a few weeks, you will see the dull red rust start to form upon it, and if you leave it for a longer while, the rust will replace the iron, and soon you won't have a nail at all, but a reddish thing in the shape of a nail, which even a child might be able to crack in half between his fingers. But copper doesn't do that. The green film on the copper, which is called its patina – pronounced pa-TEE-na, is thin, hard, and incredibly stable. It doesn't rot. It is very hard to pierce. Yet it is as thin as a hair from your head. It is beautiful, and once it's there, after from ten to twenty years, it's there forever. The Statue of Liberty will look the same in three hundred years as it does now. But most of the modern buildings you see around you will be rubble and dust, because they are made of materials that will not last.

You can make your own green copper pretty easily. Take a new penny. It is coated with copper. Pennies used to be mostly copper, but copper is too expensive now for pennies, so the inside of your coin there is zinc, which is cheaper. Still, the coating is copper, and that will do for our color. Soak a paper towel with vinegar, and let the penny rest on the towel. The vinegar doesn't combine with the copper, but it does speed things up so that the substances in the air will. In a few days your penny will have that fine bluish green patina that men grew to love, more than two thousand years ago.

Anthony Esolen is a lecturer, translator, and writer. Among his books are *Out of the Ashes: Rebuilding American Culture*, and *Nostalgia: Going Home in a Homeless World*, and most recently *The Hundredfold: Songs for the Lord*. He is a professor and writer in residence at Magdalen College of the Liberal Arts, in Warner, New Hampshire.

