## Assignment #4:

J. Robert Oppenheimer was born with a "silver spoon" one might say. Well off, cultured parents, a comfortable New York apartment and all the items that tickled his fancy, as he grew up. When his artist mother's work interested him, he had the supplies and tutors to encourage him. Living in a city like New York, of course he became interested in architecture and his parents bought him all the books and prints a college student could ask for. When rocks and minerals sparked his scientific mind, he began a Central Park rock geology collection, even becoming a member of the New York Mineralogy Society at age 12 and delivering a paper to the group.

Although Oppenheimer's parents treated him as an intellectual equal and fostered his wonders of the world, he also had traditional education background. He attended New York's School for Ethical Culture, which was "dedicated to the ever increasing knowledge and practice and love of the right." This school was founded by a Jewish apostle of social justice, Felix Alder. Alder battled his own demons of religion and whether he believed in God or not. He said, "God of theology was gone but moral law was a power actually working in the world." This sets the stage for one of the "pillars" upon which Oppenheimer established his education, Morality. Maybe better said it was established for him and he chose to pursue. A side note, this "pillar" could be closely connected to surrounding yourself with like minded colleagues and finding mentors to help out, but will be focusing on how these lead to making moral decisions.

Oppenheimer's integrity was advanced during his time at Harvard and then at the Cavendish Laboratory in Cambridge, England, but really was cultivated as he worked on his Ph.D. at the University of Göttingen in Germany. The University of California, Berkeley website chronicling his life, specifically "The Early Years," speaks of the amazing people he was able to work under and aside. These people trained him in the science and in how to bring out the best in others, while remaining honorable. This seems to be making sure to take advantage of the people within our lives, trying to learn from them. Many lives have been lived before ours and if we can not make some of the same mistakes, all the better for us.

His work continued as he accepted positions at the University of California, Berkeley and California Institute of Technology. His intellectual prowess and method of working with people helped to create two of the strongest physics departments in the nation. Again, the University of California, Berkeley website section titled "Building a School" demonstrated what he had learned from his mentors and passed on to his mentees. It is said that he would spend hours with graduate and postdoctoral students discussing their research and interests, giving them the time and his opinions, but sometimes needing to "tell them how is it." I can see this as needing to pass on the tidbits of information, just as we have received it before. This is what being a teacher is all about, not always passing on the book/subject facts, but also giving those much needed life facts!

All of Oppenheimer's life has been building to a culmination point. His claim to fame is being the man who had "fathered" the atomic bomb. His work on the Manhattan Project, moreover, his leadership and organization of all the scientists is quite an achievement. As written on the PBS website to go with the tv series <u>American Experience: Race for the Super Bomb</u>, Oppenheimer spoke of the moral conscience of those who had worked on the Manhattan "Atomic Bomb" project said, "In

some sort of crude sense, which no vulgarity, no humor, no overstatement can quite extinguish," he would say, "the physicists have known sin, and this is a knowledge which they cannot lose."

The <u>timeline</u> presented at this website made events easier to place, shortly after both atomic bombs were dropped on Japan in 1945, the acclaim went by the wayside and Oppenheimer was being questioned by the FBI about being a Communist and leaking details to the Soviet Union. He believed that the information about nuclear energy should be shared with all UN countries, for it could be useful in so many ways, but he never acted as a spy against the United States. He was appointed Chairman of the General Advisory Committee to the Atomic Energy Commission. It was in this role that he voiced strong opposition to the development of the Hydrogen bomb. The H bomb was capable of unknown destruction and Oppenheimer was not willing to help with a weapon of this kind of destruction. This does leave some questions about whether or not the A bomb droppings affected his psyche or not.

In 1953, the Atomic Energy Commission suspended his security clearance. Despite testimonials from scores of witnesses during the hearings, his clearance was not reinstated. Oppenheimer returned to academic life, but as one colleague would say, the public ordeal had "broken his spirit." Sometimes making the decisions that we believe to be moral, does not match up with what others think. One must remember that we do the best we can with what we are given. Oppenheimer was given so much and his return much outweighs the debt.