

AP World History unit 3 DBQ

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5th period

“Technology made large populations possible; large populations now make technology indispensable.” – Joseph Krutch (Writer). Technology is a ubiquitous aspect of every civilization, empire, and dynasty known to mankind. The Romans and the people of the Han both extensively used technology to better themselves and eventually all of humanity. Both the Han Dynasty and the Roman Empire had similar yet dramatically different views on the ever expanding realm of technology. As we can see from most of the documents provided that they show positive attitudes towards technology, however, some do have negative demeanors towards technological innovation. Some also deal with technological aspects such as tools, the controlling of water, and labor saving devices.

In documents 5 and 7 we can see that both are negative in mood and tone about the use and innovation of technology. Both of these documents are of upper class men of the Roman Empire. In document 5, stoic political leader Cicero talks about how there no skill involved in being a craftsman. Cicero quotes “no workshop can have anything enlightening about it.” He has grown up in an upper class family because this hatred for the lower classes do not stem overnight. As a political leader he only elevates the social conflict of the ideology we now refer to as “white collar vs blue collar” which was prevalent since the beginning of human civilization. In document 7 Upper-class roman philosopher Seneca shows a sense of carelessness when it comes to technology. As an upper-class member of the Roman society who has so obviously never used a hammer in his life shows more admiration to fame and creating a legacy than caring about the technological feats of others in his time. Additionally we need a document from a roman merchant and/or craftsman to counterbalance the arguments of Cicero in document 5 and Seneca in document 7. A craftsman who uses technology in their everyday life is needed because so far we only have an upper class view on technology the lower class is not even represented in any documents.

In documents 1, 4, and 8 we can notice that they have some relation to water. In document 1 a Han government official is ordering local officials to create water conservation offices, inspect the waterways and walls. He also orders them to carry out repairs along the river if necessary. He is most likely talking about the yellow (Huang He) river as it is prone to flooding. If the official does not do his job and the river does flood the emperor could lose the Mandate of Heaven and the official could lose his job and/or life. In document 4 a government sponsored history document states the positive attributes of Tu Shih. One of the things he did was invent “a water-powered blowing engine for the casting of iron agricultural implements that allowed people to enjoy great benefit for little labor.” This document is biased because it is government sponsored meaning the emperor paid the author not to write negative things about the government. A document from a Chinese farmer in the Han Dynasty to talk about the effects

of the government monopolizing the iron industry due to this water-powered engine. This document is needed because we only see one side of the story, but if we had this document the readers could truly determine truthfulness of document 4. Document 8 tells us about the aqueducts of the Roman Empire. It talks briefly about how they work as well as showing how plentiful the water is not only for public use but for private as well. The downside is that the source is a water commissioner for Rome. He is not going to say anything of malice toward the aqueducts because he is responsible for them. We need a document from a simple worker in the aqueducts to prove the Validity of the commissioner's claim on the abundance of water that in the city.

Documents 2, 3, 4 all deal with the creation of different tools. In document 2 Huan Guan a government official of the Han dynasty disputes that since the state has monopolized the iron and salt industry the tools produced are increasingly poor in quality to that of the tools made by the farmers themselves. This has forced farmers to use far less efficient tools because they cannot afford the iron tools. The official is trying to emit a call to action to others to help the farmers. It could be that he is trying to improve his position in the government by using the Confucian ideal of junzi (gentlemen). However we do need a document from a peasant farmer to verify the true morals of Haun Guan and if he is actually trying to help the peasant farmers or if he is just wants to get a better position in the government. Document 3 talks of a mythological wise emperor by the name of Fuxi. The philosopher claims that the emperor invented the pestle and mortar which was later improved to increase its efficiency by animal power, and water power. We must question the validity of the document because we learn that Fuxi was a MYTHOLOGICAL emperor. A document from Fuxi himself is needed to prove his existence and whether or not he created the pestle and mortar. In document 4 an Early Han government sponsored history document claims that Tu Shih, the governor of Nanyang has created a water powered blowing engine. A document from someone living under the rule of Tu Shih could prove if he created the engine or if someone else did.

In documents 4, 6, and 8 we can see the implementation of labor saving device. In document 4 we read that Tu Shih has built a water-powered blowing-engine to cut down on farmer labor. Letting more people focus on different things. Document 6 shows Plutarch describing Roman political leader Gaius Gracchus in the construction of the roman roads. Plutarch accounts that while building the roads the political leader set stone columns as distance indicators and places other stone on the sides of the road so make it easier for horses to get on the road. This cut down on labor because merchants, citizens, horsemen and military had an easier way of travelling through the country. The validity of this document is questionable because of the time difference of Gaius Gracchus and Plutarch's description approximately a century later. We need a document from a constant traveler of the roman roads, such as a merchant, to truly account what it was like to journey along the roads. Was it a seamless transition, or was it harder than described. A document from Gaius Gracchus himself would also be useful to see if he actually built the roman roads. Document 8 talks about the building of the aqueducts. The document gives us some insight of how the aqueducts were built. As quoted "All the aqueducts reached the city at different elevations. Six of these streams flow into covered containers, where they lose their sediment. Their volume is measured by means of calibrated scales." This saves on

labor because people don't have to go get water themselves from the nearest water source. Now some people get water pumped directly to them while others only need to go to the nearest fountain. However, we do need a document from a citizen of Rome to prove if the aqueducts worked or not and how much water was truly pumped by them.

Documents 1, 2, 3, 4, 6, and 8 all deal with positive attitudes towards technology. In document 1 a Han government official talks about using technology to prevent flooding of the yellow river. In document 2 Huan Guan implies that technology is a good thing even though the government is monopolizing the creation of tools using convict labor. This leads to the creation of brittle, and less functional tools sold for high prices. In document 3 Huan Tan talks about how an ancient emperor, Fuxi created the pestle and mortar. Overtime with the implementation of other technologies the pestle and mortar become very useful to the people of the Han. In document 4 "the history of the early Han Dynasty" shows how Governor Tu Shih invented a water powered blowing engine to lower labor and help the society. In document 6 Plutarch accounts the Roman political leader Gaius Gracchus as he built the roman roads and what technologies he implemented to make travel easier for citizens and merchants along the roman roads, In document 8 Frontius an upper-class Roman philosopher, governor of Britain, and water commissioner for Rome talks about how the aqueducts were built, how water is transported, and the abundance of water for the citizens of the city of Rome. In order to further analyze the attitude toward technology, I need a document from a Chinese and Roman woman. This is needed due to the fact that in all of the documents they do not mention the daily lives or attitudes of women towards technological innovation in the Han Dynasty or Roman Empire.