Representation of the Human Musculature in the Bronze Age Aegean

ABSTRACT

Bronze Age Aegean sculptures range from abstract to naturalistic, but how accurate are these naturalistic sculptures? To answer this question, it is useful to compare three Minoan works of art: the large relief of the Prince of the Lilies from Knossos, the Kouros statuette from Palaikastro, and the small relief images on the Boxer Rhyton from Ayia Triadha with the modern replica of a male musculature. This comparison will tell us how much the ancient Minoan people were studying the human body, along with the reasons as to why these sculptures were portrayed with such realistic characteristics. To accomplish this goal the artifacts’ background is taken into consideration, while measuring the length of several muscle groups and comparing them to a modern anatomical representation. The results show varied accuracy in comparison to the anatomical models. One of the Minoan artifacts is shown to be almost identical to the anatomical replica. Other conclusions involve the accuracy in comparison to the anatomical models. One of the Minoan artifacts is shown to be almost identical to the anatomical replica. Other conclusions involve the accuracy in comparison to the anatomical models. One of the Minoan artifacts is shown to be almost identical to the anatomical replica. Other conclusions involve the accuracy in comparison to the anatomical models.

BACKGROUND

Three Artifacts Used:
- Prince of Lilies fresco from Knossos: Made in about 1550 BC, thought to be the image of the Prince of the Palace of Knossos and he is thought to be herding an animal or leading a procession.
- Kouros statuette from Palaikastro: Made in about 1480-1425 BC, has strong Egyptian influence, and was shattered to pieces during a raid.
- Boxer Rhyton from Ayia Triadha: Made in about 1550-1500 BC, shows the events that took place to worship the gods, thought to have ritual usage.

Muscle Groups:
- Deltoid
- Bicep
- Quadriceps: Vastus Intermedius, Vastus Lateralus, Rectus Femoris, Vastus Medius
- Calf: Gastrocnemius and Soleus (combined)

METHODS

- Determine an anatomical control group
- Measure the length of the muscle from origin to insertion point on all three artifacts and the anatomical control group
- Compare the anatomical control group to the artifacts
- Look into the background of the most accurate artifact and see if there are any discrepancies

RESULTS

- The Prince of Lilies fresco was the most accurate compared to the anatomical model. The Kouros statuette was the second most accurate but could not get a measurement for the bicep because the insertion point could not be determined accurately. The Boxer Rhyton was the least accurate with a significant amount of variation between the figures on the third level.

REFERENCES