4-1-2011

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Emily Stephen
College of DuPage

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Examination of Human Skeletal Remains and Artifacts From el-Qantir, Egypt

by Emily Stephen

(Honors Biology 1152)

ABSTRACT

D uring a recent excavation of a common grave on the outskirts of el-Qantir, Egypt, a human skeleton, mummified cat and vase from the First Intermediate Period of the Eleventh Dynasty were discovered. Based on similar findings in the surrounding area, the human skeleton was surmised to be a mummy, decomposing because of water from a nearby irrigation system. Carbon dating concluded the archaeological ages of all items to be around 4060 years old. Egyptian history determined the cultural aspects of the burial, the human skeleton's middle socioeconomic class, the religious function of the cat, and the human's natural cause of death. The skeletal remains are those of a male between the ages of 17 and 25. The evidence and conclusions gathered in this study prove useful towards a higher understanding of the life and culture during the First Intermediate Period of ancient Egypt where there is a deficit of recorded history.

INTRODUCTION

The ancient Egyptians created one of the first and longest prospering civilizations in recorded history. Egypt ruled the areas of northern Africa and the Mediterranean from around 4000 B.C. to 31 B.C. (Shaw 2002). It was characterized by kingdoms and dynasties where innovations, large cities and massive architectures were built, including the pyramids which were used for tombs (Rice 2003). At the close of the Old Kingdom and beginning of the First Intermediate Period, specialized tombs were built specifically for the burial for those of high social status (Assmann 2002). These tombs are literally the foundation of Egyptian culture in which the afterlife was treated with great importance (Shaw 2002). In order to successfully venture to the afterlife, ancient Egyptians believed that the body had to be in pristine condition, and therefore all class members who could afford it went through the extensive process of mummification (Dodson 1971). Many had tombs and coffins, but those that could not afford tombs would be buried in the ground (Assmann 2002). Shaw (2002) states that animals were used in traditional burial because of religious reasons and many were buried with treasured possessions for use in the afterlife.

The excavation site in a common grave in the outskirts of el-Qantir, Egypt, located on the eastern Nile Delta where a human skeleton, mummified cat and vase were recently discovered could potentially be from the First Intermediate Period. The objectives of this study was to determine the archeological age of the human skeletal remains, mummified cat, and vase, the artifacts relationship with each other, gender, age of death, socioeconomic class and cause of death of the human skeletal remains. By determining this, possible information concerning living conditions and culture of the ancient people would further complete the understanding of history.

METHODS

The archeological ages of the human skeleton, mummified cat, and vase was determined using carbon-14 dating. Ten samples were taken from each artifact. Two-tailed t-tests were used by to examine if the skeletal remains were significantly different in age from the mummified cat and vase. Significance was determine at $P \leq 0.05$. Gender of the human skeletal remains was determined from sexually dimorphic regions. Age of death of the skeletal remains was estimated by bone size as well as development and quality of teeth. The socioeconomic status of the mummy and cause of

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death were determined through study of ancient Egyptian culture and examination of the status of the skeletal remains.

RESULTS

Table 1 summarizes the mean archeological ages and standard error of the human skeletal remains, mummified cat, and vase as determined from carbon-14 dating. The human skeletal remains dated approximately to the same age as the mummified cat (t = 0.304; P = 0.765; df = 18), but both the human skeletal remains and mummified cat differed significantly in age from the vase (t=2.416; P = 0.027; df = 18). The similarity in age between the human skeletal remains and mummified cat is evidence that both objects were associated with one another at the time of burial. A difference in age of 20 years may indicate that the vase may have been a possession of the individual, albeit just in the afterlife.

Gender of the skeletal remains was determined male through sexually dimorphic observations. The pelvis was narrow, the sub-pubic angle was v-shaped with a lack of a developed ventral arc, the sub-pubic concavity was absent, the pelvic brim was a narrow and heart-shaped, a pelvic ratio of less than one, and the overall size robust, are all significant indicators that the skeletal remains are male (Mays 1998).

The presence of third molars with little wear indicates a minimal age of 17 to 25 (Isçan 1989). The skeleton's overall large, developed bones signify a mature male skeleton that has completed growth or is nearing completion. Therefore, the age was estimated to be between ages of 17 and 25. Due to the undamaged skeleton, the cause of a relatively early death is unknown but can possibly be due to infection or diseases prevalent during the First Intermediate Period of the Eleventh Dynasty. The socioeconomic class of the skeleton can be inferred to be that of the middle class because of its place and condition of burial, as well as the items buried with the remains.

DISCUSSION

The skeletal remains and artifacts discovered in el-Qantir, Egypt, represent a time period of the Eleventh Dynasty in the First Intermediate Period from 2150-2040 B.C. (Grimal 1994). Rice (2003) states the First Intermediate Period was one of constant conflict, change, and increased trade. These conflicts, Mertz (2007) says, resulted in a decline in recorded history. Young age and an absence of bone injury to the skeletal remains indicate a potential cause of death by disease or infection. The spread of disease heightened with states of conflict, increased trade and traveling people in conjunction with the high density in which the ancient Egyptian people lived. Prevalent diseases during the time were malaria, smallpox, measles, cholera and schistosomiasis (Grimal 1994). Additionally, the close proximity to the Nile River provided a fertile breeding ground for parasitic organisms which could cause infection.

The human skeletal remains are of an Egyptian male of middle socioeconomic class. The socioeconomic class was indicated by an absence of a sarcophagus or coffin, characteristic of people of high class, location in a common grave with great quality of skeletal preservation, indicating a greater fortune than low socioeconomic class, and presence of a mummified animal (Dodson 1971). The mummified cat and skeleton were buried approximately at the same time. This is indicative of the religious views that the ancient Egyptians held for certain animals, in which all of their gods were associated with an animal and those that could afford it would bring them along in the afterlife (Mertz 2007). Additionally, belongings in life, such as the vase, were also buried with individuals for success in the afterlife. Those of high socioeconomic class were traditionally buried in the city, whereas those of lower status found graves in less occupied places (Richards 2002). El-Qantir was a major city only after the Nineteenth Dynasty due to its royal establishment and access to trade, but has no previous documented traces of habitation (Kemp 2006). Thus, any evidence of habitation enriches historical understanding of the era.

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Table 1. Summary (mean + standard error) of artifact ages according to mean of carbon dating of object. All n = 10.

Artifact	Age Mean $\pm$ Standard Error (years)
Human skeletal remains	4061 ± 6
Mummified cat	4058 ± 7
Vase	4042 ± 4

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