

MUMMIES' PHYSIOGNOMY AND ITS REFLECTIONS IN THE ARTISTIC STYLE OF THE NEW KINGDOM

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1. Introduction

As tangible evidence, New Kingdom mummies (ca. 1539 - 1075 B.C.E.) are a powerful element to study and understand the history of ancient Egyptian artistic styles because of the mummifying techniques developed in that period, and which enabled the Egyptians to maintain the features of the faces of some mummies, especially kings and queens, in a well-preserved state. Although artistic styles differed from one era to another, the functional purpose of funerary statues necessitated portraying the real features of the person, which also had to reflect their strength and youth. Therefore, this research comprises the study of a number of faces of statues of the same person and the faces of their mummies and, by comparing them, try to understand to what extent the individual features of the statues' faces resemble the physical features of the real person.

2. Materials and Methods

The terms "realistic" or "idealistic" have only recently been used by art historians and archeologists to try to explain the artistic style of a statue. Studying the faces of mummies may help in understanding the ancient Egyptian art schools, whether it is idealism, realism or a school that combines both idealism and realism. For example, the faces of kings' statues of the Old (ca. 2675-2130 B. C. E.) and New Kingdoms often followed an idealistic style, except Akhenaten, known as King Amenhotep IV, who had his own special artistic style and may be considered an artistic revolution. On the contrary, the faces of the kings' statues of the Middle Kingdom (ca. 1800-1630 B. C. E.) were realistic. However, there are still many mysteries and secrets in ancient Egypt that have not yet been discovered; some specifically, include the hidden reasons behind depicting kings and queens with different styles through the dynasties. Therefore, I chose the mummies of several important, influential figures in the New Kingdom for two reasons; the first is the quality of the mummifying in the New Kingdom which enables us to compare the features of the true faces with their statues, and the second is the availability of a number of statues for each person, which en-

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ables a fuller comparison to be made with the mummy. The study discusses the following kings and queens:

- Thutmose III, Thutmose IV, Tiye and Tutankhamun from the 18th Dynasty.
- Seti I and Ramesses II from the 19th Dynasty.
- Ramesses III from the 20th Dynasty.

Before studying and comparing the facial features of the mummies and statues, it is necessary to identify the continual changes that occur with aging and the importance given to statues and mummies in ancient Egypt.

2.1. The importance of statues and mummies in Ancient Egypt

Statues had a ritual purpose in ancient Egypt. Ancient Egyptians believed that the deceased soul could inhabit the statue of the same person, which is why artists tried to avoid any technical problems that might weaken some areas of the statue and so ensure the statue would accomplish its function. However, the nose and chin remained the weakest and most fragile areas in the faces of the statue, despite artists' attempts to use abstraction art for these particular features; the Egyptologist Edward Bleiberg, however, believes that a statue's nose was intentionally damaged to prevent the spirit from breathing anymore [1]. The importance of mummifying lies in maintaining the body in good condition because of the belief in the idea of resurrection.

2.2. Facial changes with age

The craniofacial skeleton undergoes changes with age. When comparing older people to younger ones [2] it is clear that the midface skeleton is one of the anatomic areas predisposed to resorption, including the periorbital region, cheek, pyriform region of the nose, the orbital rim, and the prejowl area of the mandible [3-4].

When a person goes from being a baby to a teenager, the main differences are that the face becomes larger [5] and continues to change until the age of twenty, with facial skin also undergoing a fundamental modification as time progresses, including the muscles and wrinkles [6-7]. And when a person goes from the age of 50 to 60, the main changes of the face lie in a change in skin texture and the gradual development of wrinkles, senile plaques, and bags under the eyes [5, 8, 9].

There is, moreover, no doubt that facial aging affects the individual facial features, such as the mouth, eyes and nose [10]. The internal features of the shape and size also help to indicate the age of the face; for example, big round eyes and a shorter nose reduce the person's estimated age, while lips become thinner and the borders become less well-defined with age [6]. The structural support of bones and teeth is also affected by aging [11].

The shape of the skull of an adult person also changes with age [12], a change that involves a remodeling of the cranial bones [4]. The upper jawbone is displaced backwards with aging and the maxillary angle is decreased by about 10 degrees when comparing differences between young and old people. The nose lengthens and its tip droops as one ages, and the length of the lower jaw changes with aging for both genders [3].

3. The 18th Dynasty mummies and statues

Thutmose III (Tables 1.1 and 1.2 – n.1)

Age: 35-40 years; 55-60 years [13]; over 40 years old [14]; late fifties or early sixties [15] according to various studies. Thutmose III (1479-1425 BC) was one of the strongest pharaohs in ancient Egypt and established a great empire [16-17].

In 1898, the tomb of Thutmose III, "KV34," was discovered by archeologist Loret's workmen [18].

The wars of Thutmose III brought some new ideas from the Asian and Aegean world, which led to the emergence of a new artistic style characterized by softer lines. Old age never appeared on his statues [19], which had the same idealism as the Old Kingdom but was more delicate. The art of the 18th Dynasty reflected the power of that period, and was reserved and impersonal [20]. The mummy of Thutmose III had a rectangular-shaped face, wide chin and a broken nose. The main features common to his statues are: slightly smiling lips, an aquiline nose, almond-shaped eyes and soft angled eyebrows. We can see that some of the Thutmose III statues had a full, rounded face, such as in A and B, and others had less rounded full faces C, D, E and F; A, B and C had a round chin and D, E and F had a wide chin similar to the mummy's face. Hatshepsut, the aunt and stepmother of Thutmose III, had the same full, rounded face as A and B.

Eric H. Cline and David O'Connor dated statue A to the beginning of the coregency of Thutmose III with Hatshepsut; statue B was made during the first seven years of his reign; statue E is from the second half of the third decade of his reign and statue F was made during the last twelve years of his reign [21]. From those dates, we can see that the statues of Thutmose III with full, rounded faces, such as those found in Hatshepsut's artistic style, were produced at the beginning of his reign; at the time of its end, the shape of his statues' faces resembled more that of his mummy. Melinda K. Hartwing has stated that the artistic style of Thutmose III changed and was different from Hatshepsut's artistic style, so as to appear more youthful and to remind us of the preceding artistic style of Thutmose I [22]. It is clear how the artistic style of Thutmose III changed from that used during his coregency with Hatshepsut. His statues were initially influenced by her statues' style, but later show how he developed his own artistic style. Actually, I disagree that his artistic style "became more youthful," because the rounded, full face that he abandoned gives the impression of youth more markedly, and as mentioned before, one of the signs of aging is the loss of fullness in the face. So, I can say that when the artist chose his artistic style for Thutmose III, he was trying to portray the real features of the king's face and wanted to ensure it resembled him, but at the same time hide the signs of his aging.

Thutmose IV (Tables 1.1 and 1.2 - n.2)

Age: 25-28 years (Smith, in 2012); 25-35 years (Harris and Weeks, in 1973); 30-35-40 years (Wente and Harris, in 1992); 30 years (M.E. Habicht and others) [13].

The tomb of Thutmose IV, "KV43," was discovered by Howard Carter in 1903, without his mummy, because the burial chamber had been looted in the past. In fact, his mummy, had been discovered earlier, in 1898, by Victor Loret in the side chamber of the tomb of Amenhotep II, "KV 35," [18] and, in 1903, was the first royal mummy to have been x-rayed [15]. There are many different opinions about his age; for example, Smith suggested that he was 25 years old, Krogman and Baer concluded his age was between 35-40 years old, and J.L. Angel suggested that Thutmose IV died when he was 55 or 60 years old [23].

The face of the mummy of Thutmose IV has a square shape, wide chin, slightly smiling lips and a small nose. The main features of the statues of Thutmose IV are a square-shaped face, wide chin, smiling lips, small nose, big eyes and straight eyebrows, which are the same features as those of his mummy.

Tiye (Tables 1.1 and 1.2 – n.3)

Age: 40-50 years old, according to Hawass and Saleem [14].

In 1898, the mummy of the "elder lady" was discovered in one of the side chambers of the tomb of Amenhotep II and was identified as Queen Tiye by an American team led by James E. Harris [24].

The face of the mummy of Queen Tiye is triangular in shape, with a long, pointed chin, and the corners of her mouth droop downwards, which conveys the impression of frowning, and a small nose. The statues of Tiye have two different styles, the first depicting Queen Tiye with a full, rounded face, big sleepy eyes, rounded eyebrows, a small nose, smiling lips and a wide chin compared with the mummy's chin in A, B and C. The second style depicts her with a triangular, frowning face, sleepy almond-shaped eyes, rounded eyebrows, a small nose, and the corners of her mouth drooping downwards, as in the mummy of Tiye with a long, pointed chin in D and E. The first style dates back to the era of King Amenhotep III, the husband of Tiye, and the second one dates back to the era of King Akhenaten, the son of Tiye. The artistic style of Akhenaten changed a lot compared with the artistic style of his father Amenhotep III and that is what is evident in the two different styles of Tiye's statues during the two different eras. However, there are still some common features in Tiye's statues of the two different styles, such as the sleepy eyes, rounded eyebrows and the small nose, which is proof that these features were realistic. Comparing both styles with the mummy of Tiye, it can be seen that the second artistic style of her statues closely resembles her mummy. Even if we bear in mind the difference in the two different ages, the second artistic style is still closer to reality, because it is impossible for a face to change from a triangle to a circle as a result of aging. With age the face becomes less full and thinner, it does not completely change the shape or structure of the face. Therefore, Tiye's statues reflect the artistic styles used during the two different periods of the reigning kings (father then son) and the transformation that occurred in the era of her son, Akhenaten.

Because of the revolution that took place in ancient Egyptian art during the reign of Akhenaten, it was necessary to change the ideas stemming from the concept and traditions of kingship, as the main point of Akhenaten's teachings was the principle of "living by truth" [20].

Tutankhamun (Tables 1.1 and 1.2 – n.4)











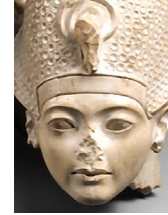
Age: 18-20 years (Derry, in 1927); 23-27 years (Wente and Harris, in 1992); 17-19 years (M.E. Habicht and others, 2016) [13]; 19 years old (Hawass & Saleem, 2018) [14].


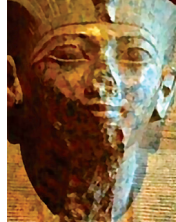








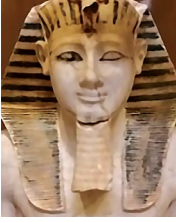

Tutankhamun's tomb, "KV 62," was discovered by Howard Carter in 1922 [25].

He came to the throne of Egypt around 1333 BC when he was no more than nine years old, and he died early in 1323 BC [18]; so, when he died, he was around 19 years old. Tutankhamun's statues, discovered in "KV 62", presented the type of mature Amarna artistic style [22], and shows the gradual transformation in the artistic style that followed the abandonment of Atenism, as Tiye's statues show us the transformation from the worship of Amun to that of Aten.

Tutankhamun's mummy has an elongated skull, heart-shaped face, small nose and narrow chin. The main features in Tutankhamun's statues are: the heart-shaped face, big eyes, rounded eyebrows, full lips with a cupid's bow and a small nose. A, B and C have a round chin. In D, E and F the chin became a bit wider. In A and B we can see the mature Amarna artistic style, the face is not that full compared with C, D, E, F. In A we can see the elongated skull, as in some Amarna portraits, and the area around the mouth in B looks a bit like that in Tiye's statues D and E. Gradually, we can see the artistic transformation in C and D while retaining the same main features in all of Tutankhamun's statues except for some fullness in his face. In E and F the artistic style reached its climax and returned to the ancient artistic traditions used before Akhenaten, completely abandoning the Amarna artistic style.

Table 1. The 18th Dynasty mummies and statues.

18th Dynasty MUMMIES Front view				
Table 1. 1	1. Thutmose III 40 + Y. Photo archive of Dr. Zahi Hawass	2. Thutmose IV 30-40 Y. Photo archive of Dr. Zahi Hawass	3. Tiye 40-50 Y. Photo archive of Dr. Zahi Hawass	4. Tutankhamun 19 Y. Photo archive of Dr. Zahi Hawass
A	 Granite Metropolitan Museum, New York. [21]	 Black granite Egyptian Museum, Cairo. Photograph by the author	 Limestone Egyptian Museum, Cairo. Photograph by the author	 Wood lined with stucco and painted Egyptian Museum, Cairo. Photograph by the author
B	 Granite Egyptian Museum, Cairo. Photograph by the author	 Steatite Museum of Egyptian Art, Munich. [26]	 Granodiorite Egyptian Museum, Cairo. Photograph by the author	 Indurated limestone Metropolitan Museum, New York. [27]

C					<p>Calcite Egyptian Museum, Cairo Photograph by the author</p>	<p>Granite Louvre Museum, Paris. [28]</p>	<p>Granite Egyptian Museum, Cairo. Photograph by the author</p>	<p>Wood lined with stucco and painted Egyptian Museum, Cairo.</p>
D					<p>Greywacke Luxor Museum, Luxor. [29]</p>		<p>Yew wood, silver, gold and faience inlays Egyptian Museum, Berlin [30]</p>	<p>Gilded wood and bronze Egyptian Museum, Cairo. Photograph by the author</p>
E					<p>Schist Egyptian Museum, Cairo Photograph by the author</p>		<p>Quartzite Metropolitan Museum, New York. [31]</p>	<p>Quartzite Karnak temple, Egypt. [32]</p>
F					<p>Indurated limestone Egyptian Museum, Cairo Photograph by the author</p>			<p>Gold, Egyptian Museum, Cairo. Photo archive of Dr. Zahi Hawass</p>

<p>18th Dynasty MUMMIES Side view</p>				
<p>Table 1. 2</p>	<p>1. Thutmose III 40+Y Photo archive of Dr. Zahi Hawass</p>	<p>2. Thutmose IV 30-40 Y Photo archive of Dr. Zahi Hawass</p>	<p>3. Tiye 40-50 Y http://historicaleve.com/all-facts-about-egyptian-queen-tiye-mother-of-akhenaten/</p>	<p>4. Tutankhamun 19 Y Photo archive of Dr. Zahi Hawass</p>
<p>A</p>	 <p>Granite Metropolitan Museum [21]</p>	 <p>Photograph by the author</p>	 <p>Photograph by the author</p>	 <p>Photograph by the author</p>
<p>B</p>	 <p>Photograph by the author</p>	 <p>Steatite Museum of Egyptian Art, Munich. [33]</p>	 <p>Photograph by the author</p>	 <p>Indurated lime-stone, Metropolitan Museum [34]</p>
<p>C</p>	 <p>Photograph by the author</p>	 <p>Granite bust of Thutmose IV, Louvre Museum [35]</p>	 <p>Photograph by the author</p>	 <p>Photograph by the author</p>

D				
E				
F				

3.1. The 19th Dynasty mummies and statues

Seti I (Tables 2.1 and 2.2 – n.5)

Age: 40-50 years old (Hawass & Saleem, 2018) [14].

The faces of the statues of Seti I remind us of the artistic style of earlier kings of the 18th Dynasty, such as Hatshepsut. The main features of his statues' faces are the full, rounded face similar to Hatshepsut's face and the smiling lips, as in the Thutmose III statues. The Seti I statues have big eyes and rounded eyebrows. The mummy of Seti I has a diamond-shaped face, and the face is longer than it is wide. The cheekbones are more prominent than those of his statues which have a round face, and the mummy's nose is smaller than the nose of Thutmose III or Ramesses II; his nose is also de-

picted in statue A as not being long but a bit wide. In addition, the chin of the mummy is longer than his statues' chin, which may indicate that the artists were trying to make the real shape of his chin more abstract for some reason. Despite that, his statues' faces are similar to but not exactly like the face of his mummy.

Ramesses II (Tables 2.1 and 2.2 – n.6)

Age: over 70 years old (Hawass & Saleem, 2018) [14].

The tomb of Ramesses II is located in the Valley of the Kings, "KV7."

He ascended the throne in 1290 BC and he died at over 90 years old [18]. Ramesses II veered from his father's artistic style, from delicate to coarse [22]. The eye sockets of the Ramesses II mummy are larger than those of the mummy of Thutmose III, Seti I and Ramesses III, which means that when he died, he was older than all of them [3]. In addition, the angle of his lower jawbone has dropped more than theirs. The face of the Ramesses II mummy is rectangular, with a wide chin, a mouth with downturned corners, a hooked nose and prominent cheekbones. We can classify his statues into two different styles: one depicts him with a heart-shaped face, almond-shaped eyes, soft-angled eyebrows and a round chin as in A and B; the other style depicts his face as full and rounded with big eyes, round eyebrows and a wide chin as in C, D, E and F, and his statues are not similar but completely different, and the size of his nose in both artistic styles is very much smaller than the nose of his mummy. We can also see that the smiling lips found on the statues of Seti I are no longer present on those of the Ramesses II statues, except in A and B, so it seems there was a transition from his father's artistic style to his own personal artistic style. So even though two different styles were used for Ramesses II the same concept was adopted for both: that is, he was depicted as being young and strong without focusing on his real individual features, as is evident in his statues, because they are completely different from each other.

3.2. The 20th Dynasty mummies and statues

Ramesses III (Tables 2.1 and 2.2 – n.7)




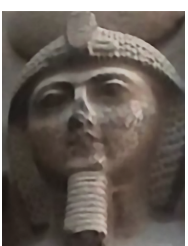


Age: 60 years old (Hawass & Saleem, 2018) [14].


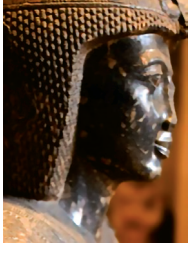



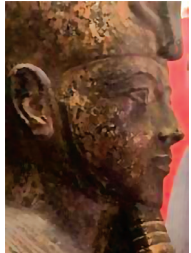
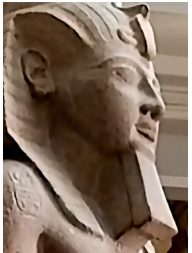
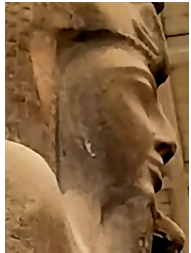


In 1881, the mummy of Ramesses III was found in the Deir el-Bahari cache of royal mummies [39].



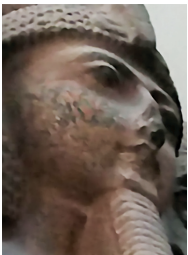
The mummy of Ramesses III has a rectangular face, a wide chin, a mouth with downturned corners, prominent cheekbones and a deformed nose. In fact, the faces of the statues of Ramesses III are completely different from his mummy's face. The only statue that resembles his mummy is E, which was found in Beth Shean in northern Israel [40]. It is the only statue that has a rectangular face, a mouth with drooping corners, and a wide chin, which are the same features on his mummy's face. The eyes are not that big compared with his statues' eyes and the mummy's face has soft-angled eyebrows. A, B and D have a heart-shaped face, big eyes, small nose, thin lips and A and B have round eyebrows, whereas B has soft-angled eyebrows. In addition, the chin of B is longer than the chin of A, while D has smiling lips. Photo C of Ramesses III reminds us a lot of statues of Ramesses II, especially C. This statue has a full, rounded face, big eyes, rounded eyebrows, a small nose, thin lips and a wide chin. The statues of Ramesses III depict him full of youth and strength, except that E shows signs of aging when compared to his other statues.

Table 2. The 19th and 20th Dynasty mummies and statues

<p>19th Dynasty MUMMIES Front view</p>			<p>20th Dynasty MUMMIES Front view</p>	
<p>Table 2. 1</p>	<p>5. Seti I 40-50 Y Photo archive of Dr. Zahi Hawass</p>	<p>6. Ramesses II 70-90 Y Photo archive of Dr. Zahi Hawass</p>		<p>7. Ramesses III 60 Y Photo archive of Dr. Zahi Hawass</p>
<p>A</p>	 <p>Greywacke Egyptian Museum, Cairo. Photograph by the author</p>	 <p>Granite Egyptian Museum, Cairo Photograph by the author</p>	<p>A</p>	 <p>Granite Egyptian Museum, Cairo Photograph by the author</p>
<p>B</p>	 <p>Granodiorite Metropolitan Museum, New York. [41]</p>	 <p>Granite Egyptian Museum, Turin.[42]</p>	<p>B</p>	 <p>Granite Egyptian Museum, Cairo. Photograph by the author</p>
<p>C</p>		 <p>Pink Granite Egyptian Museum, Cairo Photograph by the author</p>	<p>C</p>	 <p>Red Granite Egyptian Museum, Cairo. Photograph by the author</p>

D		 <p>Granite Egyptian Museum, Cairo Photograph by the author</p>	D	 <p>Greywacke Luxor Museum, Luxor. [43]</p>
E		 <p>Pink Granite Egyptian Museum, Cairo. Photograph by the author</p>	E	 <p>Basalt Israel Museum, Beth Shan.[44]</p>
F		 <p>Pink Granite Egyptian Museum, Cairo Photograph by the author</p>	F	
19th Dynasty MUMMIES Side view			20th Dynasty MUMMIES Side view	
Table 2. 2	5. Seti I 40-50 Y Photo archive of Dr. Zahi Hawass	6. Ramesses II 70-90 Y Photo archive of Dr. Zahi Hawass		7. Ramesses III 60 Y Photo archive of Dr. Zahi Hawass

<p>A</p>	 <p>Photograph by the author</p>	 <p>Photograph by the author</p>	<p>A</p>	 <p>Photograph by the author</p>
<p>B</p>	 <p>Granodiorite, Metropolitan Museum. [41]</p>	 <p>Granite Egyptian Museum.[42]</p>	<p>B</p>	 <p>Photograph by the author</p>
<p>C</p>		 <p>Egyptian Museum, Tahrir Square, Cairo [45]</p>	<p>C</p>	 <p>Photograph by the author</p>
<p>D</p>		 <p>Photograph by the author</p>	<p>D</p>	 <p>Greywacke, Luxor Museum.[46]</p>

E		 <p data-bbox="547 505 701 547">Photograph by the author</p>	E	 <p data-bbox="895 505 1062 547">Basalt, Israel Museum. [47]</p>
F		 <p data-bbox="547 859 701 900">Photograph by the author</p>	F	

4. Discussion and Conclusion

After studying the faces of the mummies and the statues of Thutmose III, Thutmose IV, Tiye, Tutankhamun, Seti I, Ramesses II and Ramesses III, it was noted that the ancient Egyptian artists did not represent the prominent cheekbones in the statues even if the real character had prominent cheekbones, and that they preferred to represent their characters with full, round, or heart-shaped faces. It is clear also that they avoided representing the face of the statue with a long protruding chin, in addition to an attempt to giving the nose an artistically abstract shape, so it only vaguely resembled this facial feature, especially if it was a hooked nose, such as that of Ramesses II. The logical explanation for this is that the most appropriate forms for the functional purpose of the statue were chosen, as bone protrusions on the face would weaken those areas in the statue and expose them to fracture, which is inconsistent with the functional purpose of the statue. The artists deliberately formed the statues out of one block without voids to keep the statue from breaking and ensuring its integrity for as long as possible. For the same reason they made the statues from hard stone such as granite, schist, quartzite, limestone, etc., and also depicted kings and queens with full faces because giving them prominent cheekbones could weaken the surrounding area, in addition to the desire to portray the kings and queens as young and powerful.

The only cases in which the previous artistic rules were broken were the portraits produced in the Amarna artistic style, as can be seen when comparing the statues of Tiye (D and E) and Tutankhamun (A, B and C) to the mummies of Tiye and Tutankhamun;

the Amarna artistic style is the closest to realism [48], as the main concept in Akhenaten's teaching was "living by truth." This is in contrast to the statues of Ramesses II and III, which did not resemble their mummies at all. In addition, it was noted that the artistic style of the Thutmose III and Thutmose IV statues had faces bearing more individual features that resembled the features of their mummies' faces to a greater extent when compared with Seti I, Ramesses II and III; but what distinguishes the statues of Seti I from the Ramesses II and III statues is that his statues are similar, and not different, as they are for the two kings.

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Summary

The research paper discusses the facial features on a number of statues of kings and queens from the New Kingdom, and whether they are "realistic or idealistic" when compared to their mummies' faces. The aim is to try to understand the extent to which the anatomical differences of the individual features of the statues' faces differ to the facial features found on the corresponding mummies' faces.

Riassunto

Il lavoro tratta i lineamenti del viso di alcune statue di re e regine del Nuovo Regno al fine di valutare se sono "realistici o idealistici" rispetto ai volti delle loro mummie. Lo scopo è cercare di capire fino a che punto le differenze anatomiche dei volti delle statue differiscono dai tratti del viso riscontrabili sui corrispondenti volti delle mummie.