

Canopic Jars



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Brooklyn Museum + Pratt
Capstone Studio Furniture Design
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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



Hapi
Sahoon-headed god representing the North
Contains the lung
the lung is protected by the goddess
Nephthys



Isis
The goddess of the moon and fertility

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Project Statement



Canopic Jar with Cover, ca. 1539-1075 B.C.E. Egyptian alabaster. Brooklyn Museum, Museum Collection Fund, 11.675a-b.

This project is inspired by the Egyptian Collection in the Brooklyn Museum. It's goal is to reveal the mystery within Egyptian Canopic Jars typically associated with burial in ancient Egypt. There are four Canopic Jars that can be opened to reveal the secrets inside the jars.

To make people understand more about the Egyptian Canopic Jar, I decided to make a set of Jars that resemble the actual canopic jars and make the object accessible to the public. I am very into the idea of an interactive museum where the objects can be touched by the viewers. I believe the hands-on experience can help the viewers learn and remember the piece.

Museum References



Canopic Jar and Cover of Tjuli, ca. 1279-1213 B.C.E. Egyptian alabaster (calcite), pigment, 18 1/2 x Diam. 6 11/16 in. (47 x 17 cm). Brooklyn Museum, Charles Edwin Wilbour Fund, 48.30.1a-b

The Egyptians honor their dead by mummifying them in very specific ways. One ritual in the process of mummification is removing the organs of the deceased person and dried them in salt, anointed with oils, and wrapped in linen before being placed into the Canopic jars. Organs deemed necessary to the afterlife are placed into Canopic Jars. This step ensures that the organs are protected in the dead's afterlife. Each step in the mummification is key to the afterlife of an Egyptian. When the mummification is done well it will ensure their place in the afterlife. Sometimes the internal organs were approached with a deeper concern with the preservation than the actual body of the person.

Research



Canopic Jar and Lid, 664-404 B.C.E. Limestone, 9 3/4 x Diam. 4 3/4 in. Brooklyn Museum, Charles Edwin Wilbour Fund, 37.897Ea-b. Brooklyn Museum photograph, 2007

There are four Canopic Jars in a set and each Jar has the representation of a Egyptain God as the lid of the Jar that contains a specific organ and each jar is protected by a different gods. They were commonly either carved from limestone or were made of pottery.

Each Jar was protected by one of the sons of Horus, and it's lid was carved into the shape of the appropraite head. Hapi, the baboon-headed god representing the North, whose jar contained the lungs and was protected by the goddess Nephthys. Duamutef, the jackal-headed god representing the East, whose jar contained the stomach and was protected by the goddess Neith. Imsety, the human-headed god representing the South, whose jar contained the liver and was protected by the goddess Isis. Qebehsenuef, the falcon-headed god representing the West, whose jar contained the intestines and was protected by the goddess Serqet.

Canopic jars first appeared in the tomb of Hetepheres, the mother of Khufu, builder of the Great Pyramid. They were intended to hold the separately mummified internal organs. The middle-class examples of canopic jars, which first appeared seven hundred years later, are often dummies like these, never hollowed out to hold the organs, but still included in the tomb. Canopic jars demonstrate the development of a custom at a royal cemetery that was then adopted in a cheaper form by the middle class.

During the mummification process, the liver, stomach, intestines, and lungs had to be removed to allow the corpse's interior to dry. In the Fourth Dynasty, the Egyptians began storing these vital organs in four separate vessels, called canopic jars, and burying them with the mummy. Eighteenth Dynasty craftsmen started making canopic jar lids representing the four "Sons of Horus"—deities specifically charged with defending the organs. The human-headed god Imsety protected the liver.



Canopic Jar and Lid, 664-404 B.C.E. Limestone, 9 3/4 x Diam. 4 3/4 in. Brooklyn Museum, Charles Edwin Wilbour Fund, 37.897Ea-b.

Research

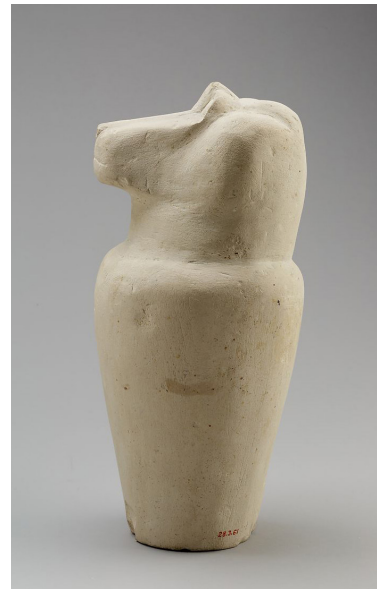
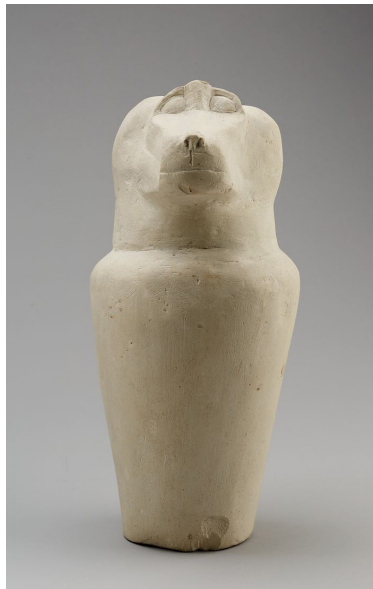
Canopic jars are usually made out of limestones, but for the wealthier people, they would use alabaster and are usually carved or painted on the outside.

The name "Canopic Jars" comes from that of Canopis, who according to Homer, was the pilot of Menelaus. Other ancient writers mention that he was deified and worshipped in the form of a jar. So when early Egyptologists discovered the jars with the lid shaped like a human head they named them "Canopic."

Throughout the middle kingdom and into the Eighteenth Dynasty, canopic jar lids were shaped like human heads. Towards the end of the Eighteen Dynasty they were replaced by animal heads.

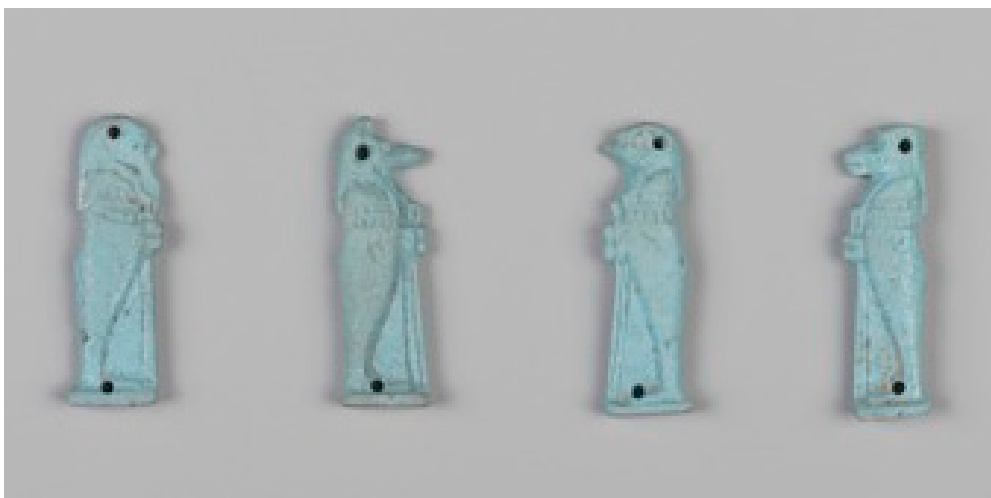


Canopic Jar and Cover of Lady Senebtisi, ca. 1938-1759 B.C.E. Limestone, pigment, Brooklyn Museum, Museum Collection Fund, 14.662a-b.



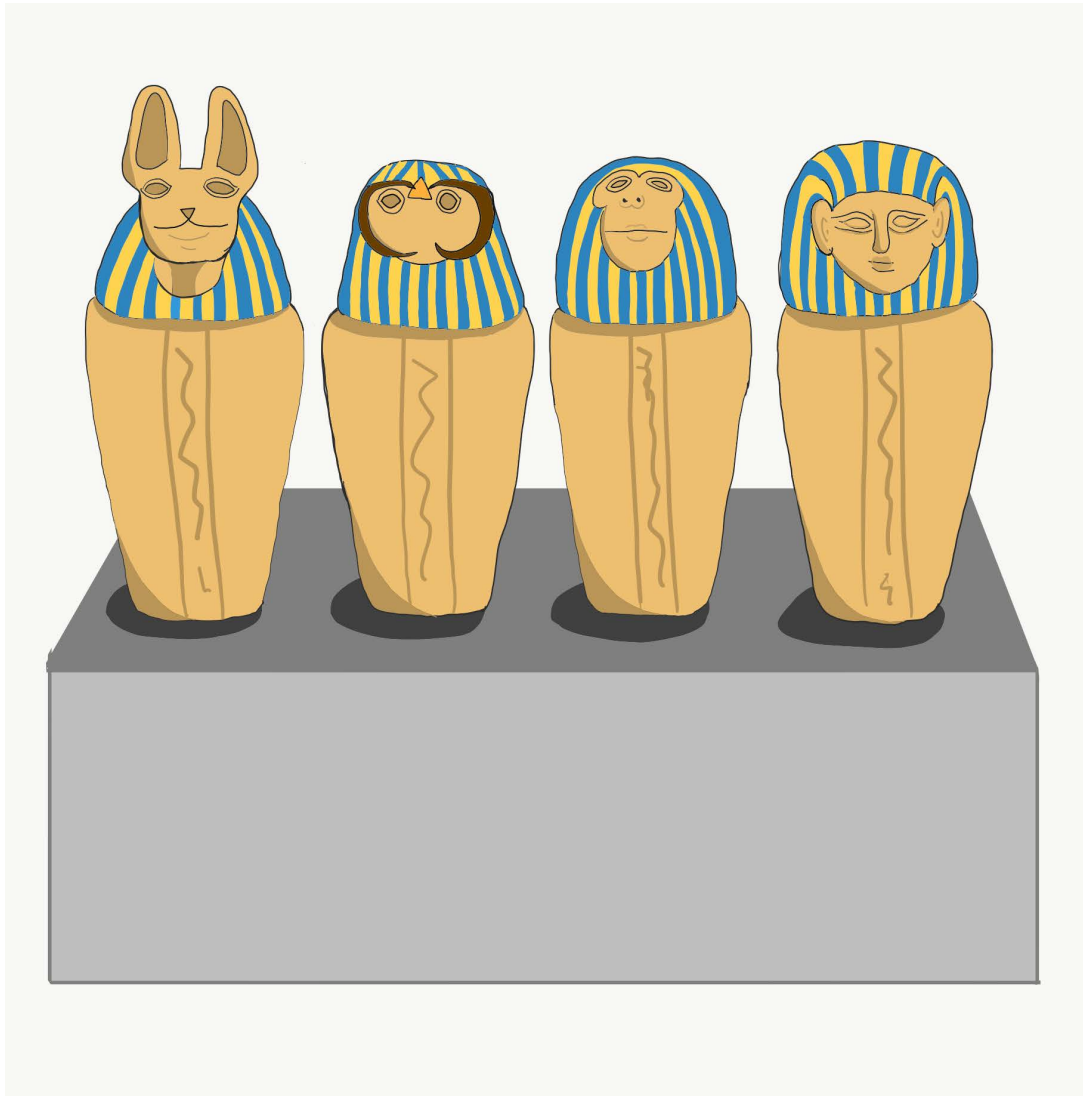
Dummy Canopic Jar with Baboon head (Hapi), Limestone, ca. 712-664 B.C. From Egypt, Upper Egypt, Thebes, Khokha, Tomb of Aafenmut, Rogers Fund, 1928, The Metropolitan museum.

Sometime during the Twenty-first Dynasty, the use of canopic jars ceased altogether because embalmers began to put the preserved and wrapped inner organs back into the body cavity. In some of the burials, they created "false canopic jars" where the lid and the body are all in one piece and there are no organs inside of them for ritual purposes so that the gods can be included as part of the burial equipment in order to ensure the protection of the four Sons of Horus.



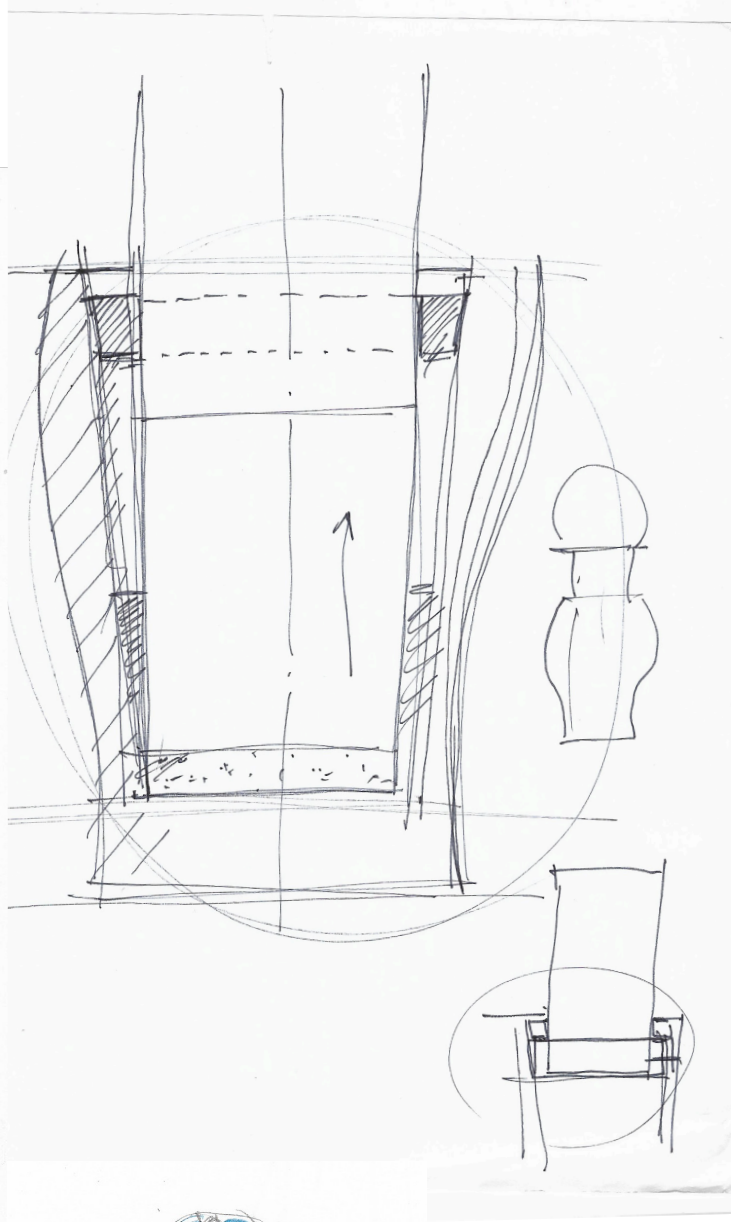
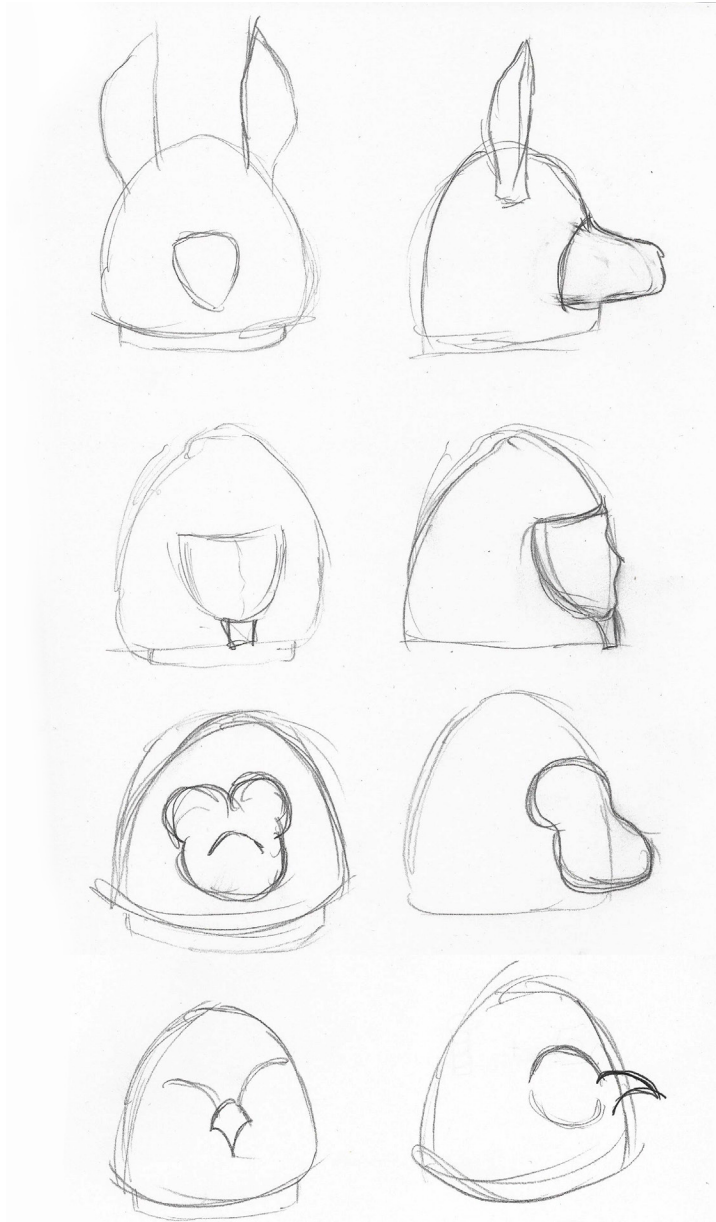
Four Sons of Horus Amulets, 381-343 B.C.E. Faience, 37.1806Ea: 1 9/16 x 1/2 x 3/16 in. (4 x 1.2 x 0.5 cm). Brooklyn Museum, Charles Edwin Wilbour Fund, 37.1806Ea-d

Project Development



I wanted to reveal the secrets of the Canopic Jars using the visual and hands-on application to help the museum visitors experience and learn about the Ancient Egyptian burial culture. Inside each jar, there will be the organ correlated to the jar corresponding with the god.

Development Sketches



Project Development



This is my process presentation from the fall 2020 semester. I have created one Jar with lid and an extra Jar body from concrete. I made a foam board model for the base of the Jar and had the engraving laser cut into a piece of acrylic to indicated the information of the jar.



These are some early models of how I want my final product to look like. I started on my process of casting the jar and the organs for the project. I change my original idea from having the organs inside the Jar to touch into having the organ inside the tube so that when the lid is lifted up the organs would rise up with the lid of the Jar.

Materials



Since the Canopic Jars were usually made from limestone or alabaster, with my design I intend to emulate the original artifacts using a stone feel and texture. By using concrete I can get it to look like the color and texture of the Egyptian stoneware. Concrete is also a cheap and durable material to manufacture.

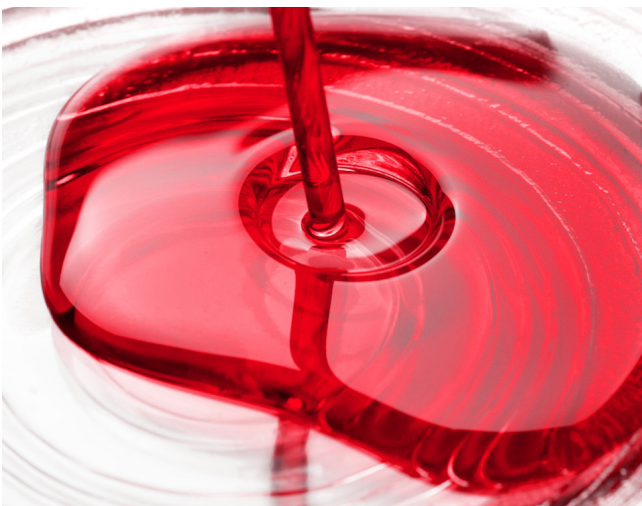
The head and body of the jar is made out of concrete, there will be a clear tube made out of clear acrylic and in the jar the organs would be casted in dark red colored resin to resemble the blood and flesh color of the human body. All four of the Jars will be attached to a base made out of wood and concrete. The top of the base would be cast in concrete with information etched into it and the support of the base would be painted wood. There will be lockable wheels attached to the bottom of the base so that the whole display would be portable.



Concrete



Clear Acrylic Tube

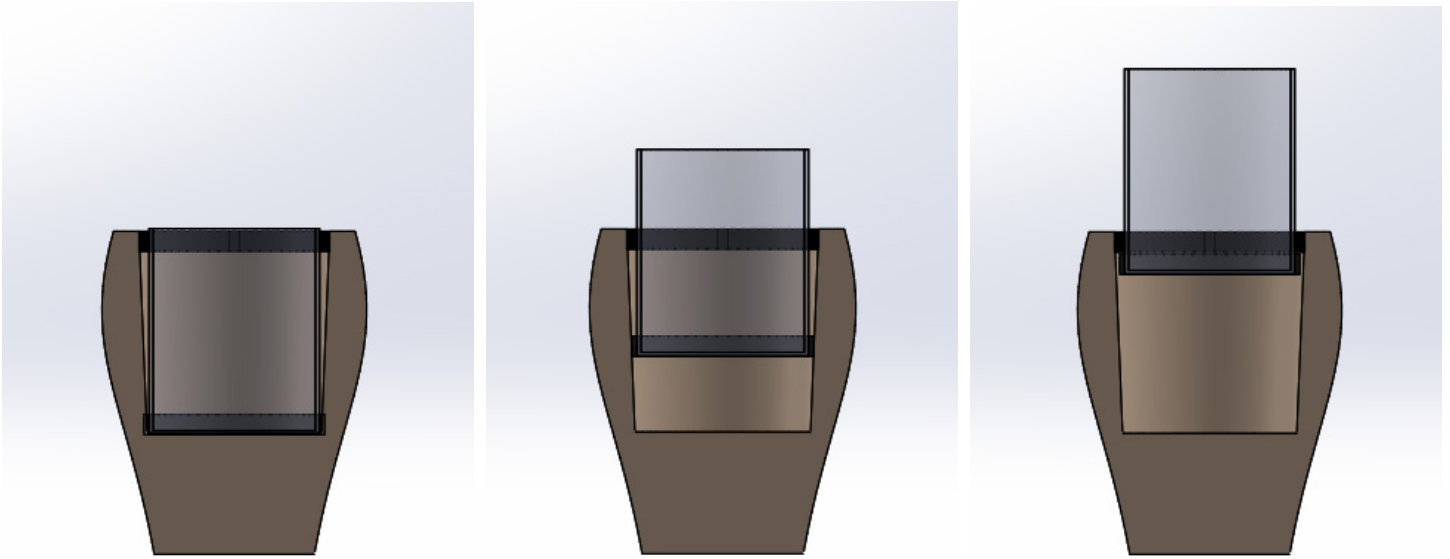


Resin



Film Faced Plywood

Mechanism



To make sure the tube inside the jars is stable and can be moved smoothly. There are foam inserts inside the Jars to make sure that the tube is fitted in the Jar. The foam insert gives the tube friction so that when the head is released it goes down slowly. The foam insert on the top of the Jar and the bottom of the tube also helps the tube to stay inside the Jar. The foam on the bottom is stopped by the foam on the top.

Casting



I made two 3D printed pieces for my molding and I also made a clay model of the lid. I cast the pieces in a two-part plaster mold. Then I coated the inside of the plaster mold with wax so that when I pour in the concrete it will not stick to the mold.

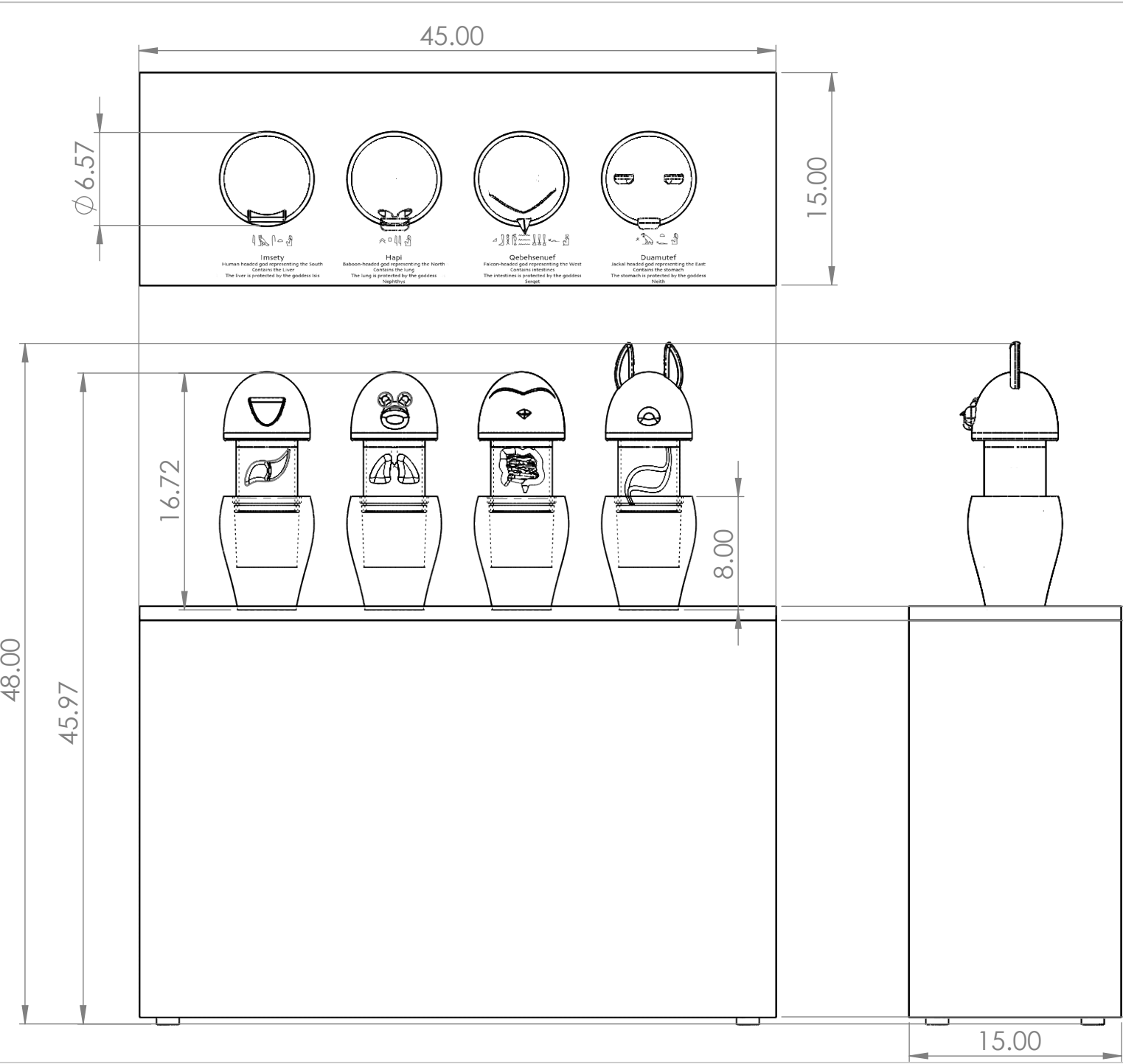




Once the concrete is dry, I removed it from the mold, fill in some of the air holes, and then I sanded the concrete pieces down until it is smooth and apply a clear coating to make it even more smooth.

The picture on the left is when the piece first came out of the mold and the picture on the right is after I smooth out the surface.

Technical Drawing



Engraving information



Imsety

Human headed god representing the South
Contains the Liver

The liver is protected by the goddess Isis



Hapi

Baboon-headed god representing the North
Contains the lung

The lung is protected by the goddess Nephthys



Qebehsenuef

Falcon-headed god representing the West
Contains intestines

The intestines is protected by the goddess Serqet



Duamutef

Jackal headed god representing the East
Contains the stomach

The stomach is protected by the goddess Neith

The engravings on the concrete slabs have the name of the Egyptian gods writing in the Egyptian Hieroglyphs following with the descriptions of the gods in English.

The Engraving information would be laser cut into the concrete to make it look like it is carved into the stone.



4 8 11 12 13

Imsety

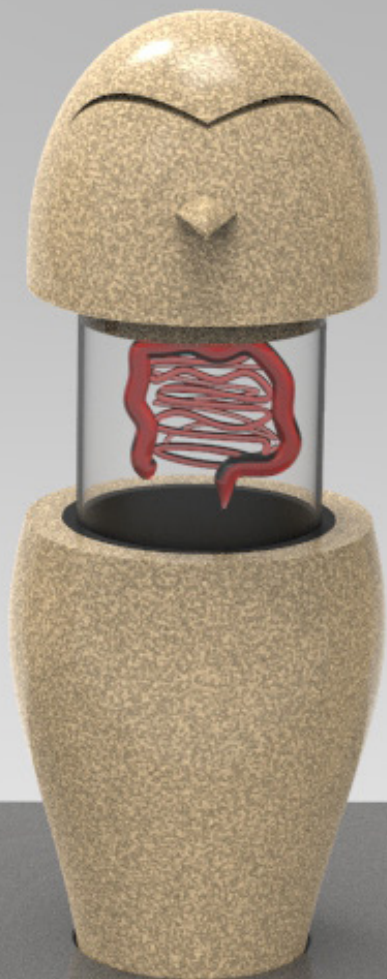
Human-headed god representing the South
Contains the Liver
The liver is protected by the goddess Isis

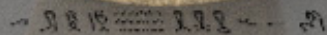


12 13 14 15

Hapi

Baboon-headed god representing the North
Contains the lung
The lung is protected by the goddess Nechtiwy

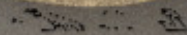




Gebel Senwret

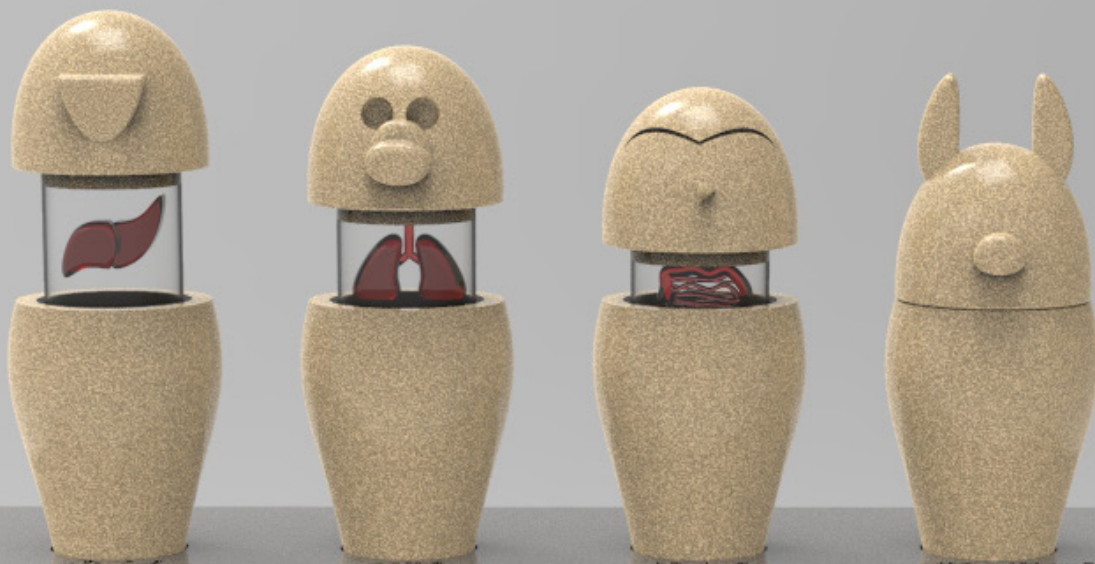
Falcon-headed god representing the West
 Contains intestines
 The intestines is protected by the goddess
 Hathor





Duamutef

Jackal-headed god representing the East
 Contains the stomach
 The stomach is protected by the goddess
 Thoth



LEVER
The liver is the largest internal organ in the body. It is located in the upper right quadrant of the abdomen. It is responsible for filtering toxins from the blood and producing bile to aid in digestion.

LUNGS
The lungs are two organs in the chest cavity that are responsible for breathing. They take in oxygen from the air and expel carbon dioxide. The lungs are made of spongy tissue and are covered by a thin membrane.

STOMACH
The stomach is a large, muscular organ in the upper left quadrant of the abdomen. It is responsible for breaking down food into smaller pieces and mixing it with stomach acid to aid in digestion.

RABBIT
The rabbit is a small, furry mammal with long ears. It is known for its ability to hop and its diet of grass and vegetables. Rabbits are often kept as pets and are also used in research.

Project Conclusion

This is the final model of the Canopic Jar that I made on Solidworks. I was struggling with the head of the jar for a while at the beginning of the semester but after I simplify the feature of the head it became easier to build in Solidworks. And since I cannot build the actual project I tried to render the project as close to what I am trying to achieve as possible.

I started my project from fall 2020, and I was intending on finishing the project during the spring. I worked at a costume concrete company so this would be a great opportunity for me to create something in this material.

I am satisfied with what I had come up with such a limited amount of time and resources. And if there is an opportunity in the future that I can make this project in real life I would like to be able to do it.

Sources

Brier, Bob. *Egyptian Mummies: Unraveling the Secrets of an Ancient Art*. Quill 1994

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The Metropolitan Museum, *Egyptian Art*, 2000-2020, www.metmuseum.org/

