Jackier Prize Competition, 2018–2019: Object Worksheet

Welcome to the Jackier Prize Competition! The items in this packet will aid you in researching your object(s) and will provide sources for you as examples for your essay. For complete instructions, please consult the Jackier Prize webpage on the Kelsey Museum of Archaeology’s website: https://lsa.umich.edu/kelsey/education/university-and-college/jackier-prize.html

- For an example of an archaeological research paper with close analyses of objects, please read:
  

- Below is a worksheet for you to fill out as you study the object or objects that you selected either from collections (from your object-handling session in class), from the permanent galleries, or both. You should use one worksheet per object to keep your research organized. The worksheet is divided into five sections: Description, Production, Function, Significance, and Research.

- If you are new to working with archaeological artifacts or would like a refresher, please consult the following resources on archaeological research and analysis:


Remember:

**Essay guidelines**

Essays should be 5 to 10 pages in length (double spaced with 1-inch margins, text set in Times New Roman 12-point font).

On the first page of the essay, please provide the title of the essay, pictures of the object(s) discussed in the essay, and your name and email address.

References should be cited using a standard citation system (such as Chicago or MLA). You must use reputable sources. Wikipedia is not a reputable source. While Wikipedia does have information about many topics and can be a good place to start exploring a topic, anyone with access to the internet is able to edit, change, or add information to Wikipedia. It is not a source that has been vetted by experts of the various topics, nor does it undergo any peer review. It does contain erroneous information, especially about the ancient world. It is, however, a good place to find lists of scholarly resources on your chosen topic that you can cite (in the reference field at the bottom of the page). But DO NOT CITE, QUOTE, OR PARAPHRASE FROM WIKIPEDIA IN YOUR PAPER.

**What do I need to do to compete?**

Submit a 5- to 10-page essay that discusses an object or objects from the Kelsey Museum. The object may be on display or from collections storage. This can be a paper you have already written for a class or one written specifically for this contest. The subject matter of the essay is up to you, but the essay must incorporate one or more Kelsey objects and reflect careful research. Here are some suggestions for questions to explore in your essay:

- When and where was the object made?
- Who made it, and how was it produced?
- Who was it made for and how was it used?
- What does the object tell us about the people who produced and consumed it (gender, age, ethnicity, social standing)?
- What can we learn from the history of the object itself — its original purpose, later uses, and afterlife in the museum?
- Where was the object discovered, and under what circumstances did it come to the Kelsey Museum?
Worksheet

This worksheet has been provided to you to help you to think about and record important information about your selected artifact(s). Please fill out one copy of this worksheet for each object you plan to write about.

DESCRIPTION

1. What is the name of the object?

2. What is the accession number of the object? (The number starting with “KM”.)

3. Where is the object located in the museum galleries? (Does not apply to objects in the classroom.)

4. Describe of the object, including its decoration:

5. (a) For objects on display: Describe the object’s size and shape. Is it small, large, long, short, narrow, thick? How does it compare with other objects in the case, or with a similar object you’ve encountered elsewhere? How heavy do you think it is?

   (b) For objects from collections you handle in class: Please use the tools provided to gather the information below. N.B. Scientists (archaeologists included) measure length in millimeters (mm) and centimeters (cm), not inches, and measure weight in grams (g). Acquiring some measurements might not be possible due to the limitations of the Kelsey’s equipment.

   Width: Height: Length:

   Wall thickness: Thickness of rim: Thickness of _________:

   Diameter:

   Weight:
6. Draw sketches of the object here. Don’t forget to include views of all sides, including the top and bottom. Label dimensions when possible or include a scale bar.
7. (a) How many different colors (or shades of colors) do you see? Where are they on the object? Answer below and draw the location of the colors on your sketches, above.

(b) Are the colors of the artifact part of the material that the object was made from? Are they a result of the manufacturing process? Are they the result of people using the object? Are they the result of the object being in the ground for thousands of years? Or are they due to something else? What evidence do you have to support your conclusion?

8. Look closely at the decorations and all parts of the object from as many angles as you can. What details do you see that you didn’t see before? If your object is on display and only part of it is visible, is there a drawing of the other side available in the case? You can also email Cathy Person (cperson@umich.edu) to find out if there are photographs of the other side of the object.

9. Is there any writing or something that could be writing on the object? If so, record what you see.
10. Is the object intact? Was it repaired in antiquity? Does it show evidence of modern repairs? Are there pieces/parts/surfaces missing? If so, what and where? What evidence do you have to support your conclusion?

**PRODUCTION**

11. What is the object made of? What evidence supports your conclusion?

12. Think about how you would make this object. Included at the end of this worksheet are some descriptions of different ways that objects were produced in antiquity. Which production technique(s) (there could be multiple) do you and think was/were used to create this object? Which part(s) were made using which technique? What evidence supports your conclusion?

Examine the decoration. What method(s) and materials were used to make it? Included in your packet is a sheet with some descriptions of different ways that decoration can be produced. What evidence supports your conclusion?
FUNCTION

13. What do you think the object was? What do you think it was used for? Was it a tool, a weapon, an adornment, something else? What evidence do you have to support your conclusion?

14. How did the object work? What evidence can you see to support your conclusion? Label any part of your drawing that is evidence for your conclusion.

15. What other things would have been required to make this object fulfill its function? Remember to think about artifacts that might not have survived in the archaeological record (usually organic materials like wood, plant material, fibers, food, etc.).

16. Was the object “used” after its production? What evidence is there to support this? Where do you think it would have been used (for example, a house, a cemetery, etc.)?

17. If there is writing on the object, does it help identify its function? What does the writing suggest?
18. Could there have been other uses for this object beyond its primary function? (For example, do you think it had aesthetic or religious worth, etc.?)

SIGNIFICANCE

19. Think like a social historian (someone who studies history through people’s everyday lives):
   (a) What might the materials and techniques used to produce this object tell us about the society that created it?
   (b) What does this object tell us about what was important in people’s lives at the time it was used?

20. Think like an anthropologist (someone who studies the cultures and development of humans):
   (a) First, think about the individual. Who do you think used this object? Do you think it was used within a specific age, gender, socio-economic class, or religious group? Or was it likely used by multiple groups?
   (b) Now, think about the larger ancient society. Can we infer anything about the economy from the process of the object’s production and the other things that it was used with?
   (c) Can we infer anything about the routine of daily life?
RESEARCH

21. Now that you have described the object, record the name of the object and any additional information provided to you. Based on the information provided to you, to which culture and to which time period did this object belong?

22. Lastly, how did this object arrive at the Kelsey Museum? By excavation, purchase, loan? (For displayed objects, this information can be found on the label.) How might this object serve an educational purpose being within a university museum?

23. After conducting more research about your object or objects like it, have any of your conclusions changed? If so, what findings changed your conclusions? What other academic resources (excavation reports, journal articles, etc.) might you look into for further research?
Some Production Methods

a) Wheel-made ceramic objects were made on a potter’s wheel (a flat disk on which clay was placed that was then spun at a relatively high rate of speed while the potter’s hands or other instruments were used to shape the clay as it turned). Afterwards they were placed in a kiln and fired until hard. The result was an object that was circular on one axis (like a plate, bowl, etc.) with evidence of having been turned on a potter’s wheel (like ridge lines from the vessel spinning in the potter’s hands).

b) Hand-made ceramic objects were not made on a potter’s wheel. Rather, they were built by the artist using only their hands and handtools. Common methods of hand-building include the following:

   a) Coil building – when clay was rolled into cylindrical shapes which were then curled, stacked on top of one another, and smoothed over to create the vessel.
   b) Slab building – when clay was rolled into flat sheets or slabs that were used to create the vessel.
   c) Combination – different hand-building techniques could be used for different parts of a vessel. Hand-built parts (such as a handle) could also be attached to wheel-made objects.

d) Mold-made ceramics were created by first carving a mold in two pieces of stone (one for the top, one for the bottom). Clay was pressed into each half of the mold, the two halves were pressed together, and then the whole thing was placed in a kiln and fired until hard. Afterwards the stone mold was taken apart, revealing the object inside. The result was an object of almost any shape (as opposed to the wheel-made ceramics, which must be circular on one axis), often with intricate “carved” designs. You can often see a seam line where the two mold halves came together.

e) Casting was a technique much like that used with mold-made ceramics (above), but molten metal or glass was poured into the mold instead of clay being pressed into it. You can often see a seam line where the two mold halves came together.

f) Lost-wax (or lost-mold) casting was a technique for casting objects in which an artist created a model of the object from hard wax or another material that has a low melting temperature. The artist then wrapped a molding substance (like clay) around the model, enveloping the model on all sides to form a mold. A hole was pierced through the outer mold into the wax. The entire piece was then fired in a kiln; the outer mold hardened and the inner model melted and drained away through the hole, leaving a cavity in the shape of the desired object. Molten metal was poured into the mold; when it cooled, the mold was broken, revealing a metal version of the wax model.

g) Cast glass: see above under “casting".
h) **Blown glass** was created using a technique in which molten glass was placed on the end of a tube that the glassblower would then blow through. The result could be any roundish, hollow object.

i) **Core-formed glass** vessels were created by first forming the shape of the intended object out of clay (the core) and then heating it and rolling it in powdered glass, which built up around the core. Bands of colored glass were also applied and pressed into the powdered glass. Designs were then made with tools and, if desired, handles were attached. The core was then removed, resulting in a glass vessel with geometric designs on the outside.

j) **Carving** an object was done by using a variety of instruments (blades, chisels, etc.) to remove excess material and create the object’s shape.

k) **Metalworking** creates objects from metal. Metal was heated until it was moldable and then it was hammered and/or worked with other tools until it took on the desired shape.

**Some Decoration Methods**

a) **Painting** was used especially to decorate ceramics, either with slip (watered down clay which produced a color wash) or glaze (a mixture including melted glass that produced a high gloss after firing).

b) **Incising** was used to make patterns and figures, as well as to sign objects (maker’s mark). A sharp tool was used to cut into the object.

c) **Stamping** was used to create decoration and to produce maker’s marks. A stamp would have been pressed into the clay before firing or into the glass before cooling.

d) **Burnishing** was used to make ceramics smooth and shiny. Before firing, the clay would be rubbed, usually with a stone or a metal object.
Some Useful Diagrams and Photographs

Wheel-throwing

From Rice 1987: 130–31

Coil building

From Rice 1987: 128
Parts of a vessel

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Figure 7.2 Major subdivisions of pottery vessel shapes: a. divisions of a simple vessel; b–d. vessel body; e–h. neck, collar, and throat; i, j. base and body on composite forms (m.d. = maximum diameter).

From Rice 1987: 213
In early Greece, making a stone statue was a two-step process. Preliminary work occurred in the quarry; detail work at the final location. Sculptors had to travel long distances to obtain stone; the best marble was on Paros and Naxos. Quarrymen would extract a promising block by hammering wedges into the stone bed and causing the brittle marble to crack along a straight line.

Having obtained a block, many sculptors began by drawing a picture of the finished statue on each face. A grid ensured that each drawing had the identical proportions, based on the size of the head. With the drawing as a guide, the sculptor would cut into the block from all sides. In the quarry, he would just rough out the figure using a pick and a blunt punch. Most tools were based on Egyptian models, translated into iron to deal with the harder Greek stone; 6th century reason invented a clawed chisel to smooth large surfaces quickly.

In the quarry, however, the goal was simply to lighten the block for transport; detail work could wait, since minor damage was inevitable en route. Draft animals would drag the unfinished statue on rollers from the quarry to a nearby harbor, where it would board ship and travel to its final destination. Naxos is littered with statues that broke during quarrying and transport; such disasters erased months of work.

But if the figure survived its journey, the sculptor would finish it on site with flat chisels of varying widths. Drills, turned by a taut string, made holes for metal attachments when necessary. One could also drill a line of holes and then cut away the intervening stone to produce long troughs, or to hollow out open spaces, as between arms and body. The final smoothing of the surface was performed with a rasp followed by pumice and emery. Last of all, a specialist would paint the hair, lips, eyes and drapery in bright colors (red, blue, yellow, green and black), which rarely survive.

From Neer 2012: 111
Lost-wax casting

Like the manufacture of terracotta, bronze casting is an additive process. Greek foundries had been using the lost wax method to produce solid figurines since the Geometric period (see p. 86). But in the 6th century, inspired perhaps by terracotta, they refined the technique to produce large, hollow-cast statues (6.33). This method, called "indirect lost wax casting," began with a detailed clay model (1). Clay master molds were taken from this model in sections (2). Molten wax was brushed onto the inside of each of these so-called master molds, followed by progressively heavier layers of slip and clay (3–5). If necessary, the clay could be reinforced with metal bars. The master mold was then removed, revealing a wax version of the original model, over a solid clay core. Slim, stem-like rolls of wax were then affixed to this model to function as vents, and the ensemble was invested with clay (6). The wax would be burnt away, leaving an empty space between the clay core and the investment mold (7). Molten bronze was poured into this space; the vents prevented the heat from cracking the mold. After cooling, the investment mold would be discarded (8–9). The result was a bronze replica of the wax replica of the original clay model. After casting, the separate pieces would be welded together to produce a finished statue (10). The clay core inside the statue was often removed; where it survives, analysis of the clay can provide evidence of a statue's place of manufacture. Last of all, cold work included smoothing, polishing and adding details through incision.

From Neer 2012: 170
Coin striking

**Figure 10.1.** The mintage of ancient coins.

From Thonemann 2015: 200

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**References**

