Goals/Research Questions:
- Identify technical capabilities of classical period potter’s wheel
- Examine relationship between wheel technology and vessel formation
- Determine whether wheel-fashioning techniques were used during classical period.

Background/ Context:
Bronze Age Greek Potter’s Wheel
- Hand-operated
- Pivot in basal socket design
- Appears Middle to Late Minoan period

Wheel-Fashioning Techniques
- Combines coil forming with rotation of wheel
- Adaptation to technical constraints of potter’s wheel technology
- Major forming technique used in Bronze Age

Evidence and Findings:
Iconographic Evidence
Athenian Black Figure Cup
Showing a Potter at the Wheel
Athenian Black Figure Hydria
Showing a Potter’s Workshop
Four classical Greek vessels with five different scenes of vessel forming were examined. Scenes preserve:
- Operation of wheels by hand
- Pulling up walls of vessels
- Finishing with trimming of excess clay
- Painting of scenes on vessels

Findings:
- Majority of scenes show operation of wheel by hand, often aided by assistant
- Scenes also suggest that classical wheel design might develop from Bronze Age wheel design
- Scenes show most vessels formed through throwing on wheel

Experimental Archaeology: Throwing Program
Replica of Minoan Small Vessel Form
Replica of Minoan Straight-Sided Conical Cup
Replicas of Minoan Conical Cups
Methods
- Utilized kick/ electric potter’s wheel in home studio
- Produced reproductions of Minoan (Bronze Age) small vessel forms
- Attempted reproduction of common classical Greek kylix (winecup) form

Observations from Experimental Throwing Program
- I noticed a slower overall wheel speed while throwing
- Adjusting to gradual slowing of home studio wheel similar to ancient Greek wheel
- Initial dryness of clay can be important factor. Can center and throw more quickly with wetter clay at the start, but harder to control

Literary Evidence
οὐ δὲ θαυμάζειν, ὁρῶντας τοῦτο μὲν υπὸ μικροῖς οἴαξι μεγάλων περιεχομένων οἰκίασιν, τοῦτο δὲ τροχίων κεραμομαχημένων δίνησιν ἄκρας παραψαύσει
This should occasion no surprise, when we observe that large merchantmen are brought round by small tillers, and that potters’ wheels whirl about evenly at the touch of the finger tip; (Plutarch, Moralia Vol. VII: On the Sign of Socrates 588f, Loeb Classical Library 405)
Four passages from ancient literature with references to the art of pottery were examined. These passages preserve descriptions of:
- Wheel operation
- Vessel formation techniques

Findings:
- All but one passage describes the wheel operated by hand
- Passages suggest that the classical wheel might have had similar technical limitations as Bronze Age wheel
- Majority of passages describe vessels formed by throwing, but one preserves continuity of coil or hand building technique for large vessels

Conclusions:
- Design of the classical period potter’s wheel likely similar to the Bronze Age wheel
- Classical period wheel also likely had similar technological capabilities
- Majority of classical period vessels were formed in sections on the wheel
- A wheel-coiling technique was sometimes employed for the largest vessel forms

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Sources for Photos:
Athenian Black Figure Cup: Beazley Digital Pottery Archive: Vase Number 355.
http://www.beazley.ox.ac.uk/record/8F96/19F7-48B6-D011-B42D-0C0C94FC954F
Athenian Black Figure Hydria: Beazley Digital Pottery Archive: Vase Number 30301.
http://www.beazley.ox.ac.uk/record/84A7A56-C320-4E99-AF89-43367621E6DF