

Wind, Pyramids, Obelisks & Beer and Its Relevance to Modern Road Construction



29th Annual Regional Local Road
Conference
Rapid City, South Dakota
October 2014

Dr. Maureen Clemmons
Fellow, Wings World Quest
Fellow, The Explorer's Club
Fellow, National University

All Truth Passes Through 3-Phases:

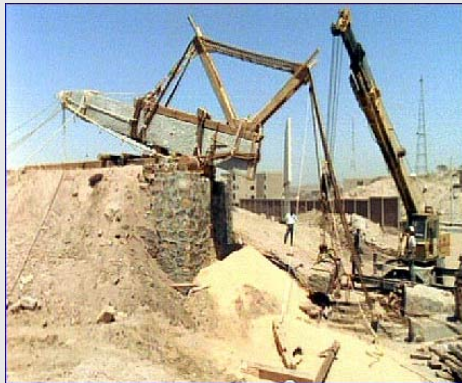


First, it is ridiculed.
Second, it is violently opposed.
Third, it is accepted as self-evident.

Schopenhauer

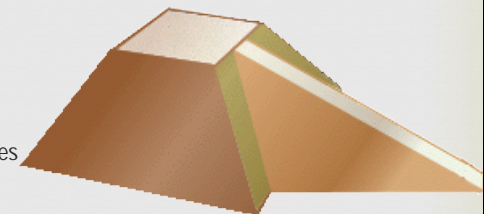
My Challenge

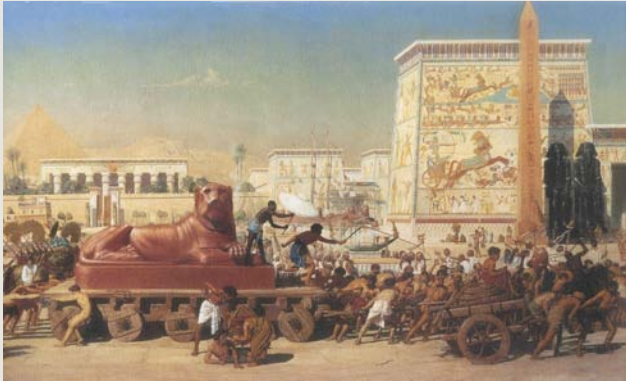
- Manual labor?
- Sand?
- Ramps?
- Hydraulics?



Current Theories

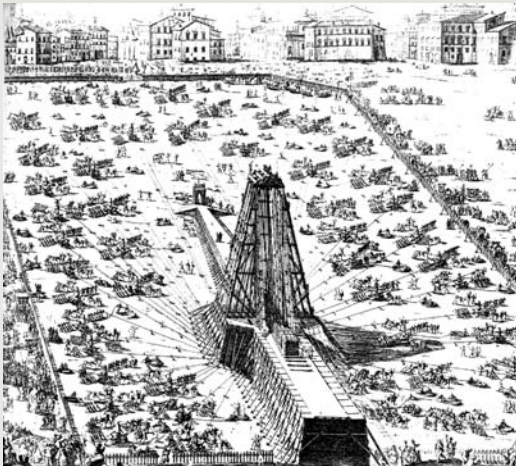
- Ramps
- Levers
- Manual Labor
- Aliens
- Harmonic Sound Waves





The Monuments of Antiquity

- Obelisks - 40 to 455 tons
- Pyramid stones: 2.5 tons to 70 tons
- Stonehenge, Malta, Easter Island, and pyramids and massive stone structures of South America



Mind vs. Brute Force



This is how the pyramid was made: like a set of stairs, which some call battlements and some call altar steps. When they had first made this base, they then lifted the remaining stones with levers made of short timbers, lifting them from the ground to the first tier of steps, and, as soon as the stone was raised upon this, it was placed on another lever, which stood on the first tier, and from there it was dragged up to the second tier and on to another lever. As many as there were tiers, so many were the levers; or it may have been that they transferred the same lever, if it were easily handelable, to each tier in turn, once they had got the stone out of it.

Herodotus, 484c - 424 c BC

"Give me six hours to cut down a tree, and I'll spend the first four sharpening the axe".

Abraham Lincoln

The Vikings



What was Available?



- Sand
- Nile
- Wind ...

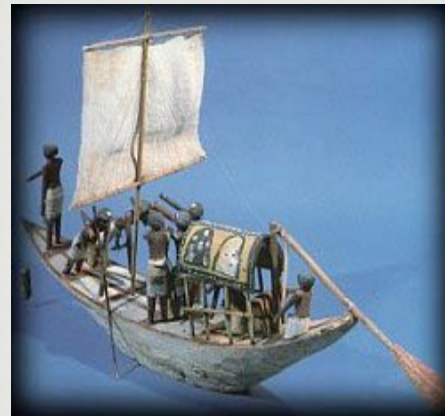
The Climate

- Inundation
- Several windy seasons

Ed Teets, NASA



At the request of Uther Pendragon, Merlin brought these stones
"in a whirl-wind one night out of Ireland."



Egyptians were credited with inventing the sail, usually made of reinforced flax

Kites



- June 1997 Smithsonian profiled a kite festival in Washington, D.C..
- One kite, shaped like an Octopus, had a 2,000 pound (one ton) pull.
- Trilobite Kite, 7 tons in a 5mph wind
- Lift and Pull

The Cedars of Lebanon

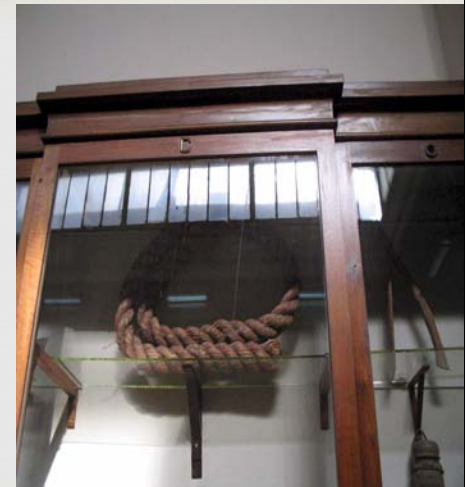


- Strong
- Flexible
- Easily split into lengths



Rope & Line

Ropes were of flax, hemp, papyrus, or esparto grass







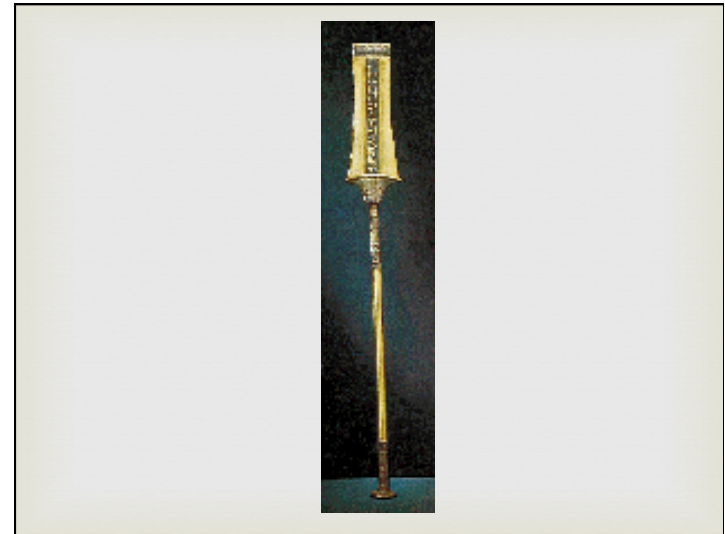
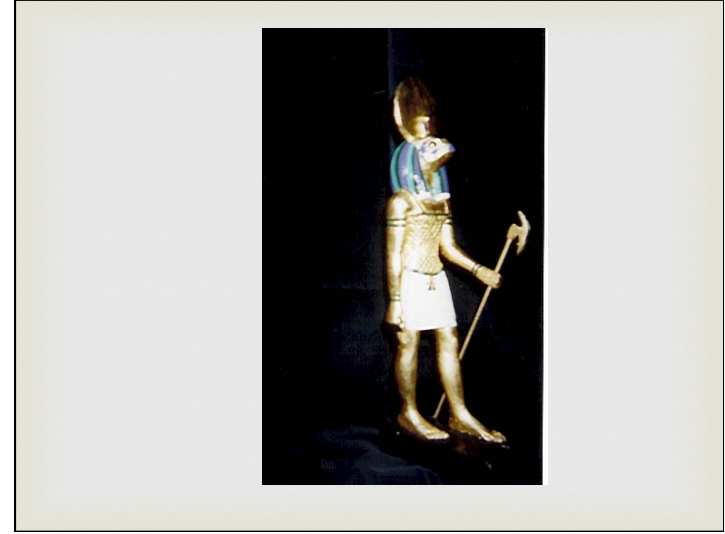
Are they symbols

or ...

are they *tools*?

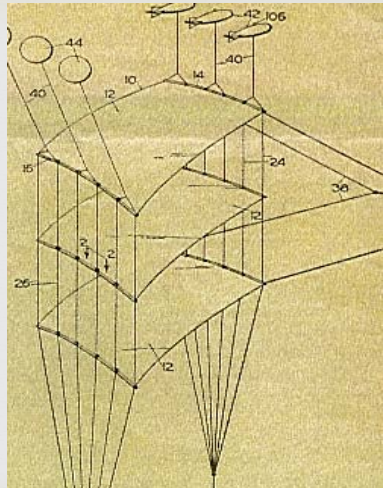












Ancient Pulleys

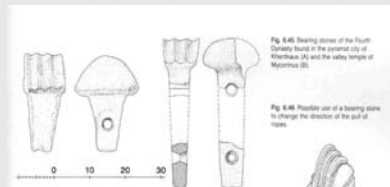


Fig. 6.45 Bearing stones of the Fourth Dynasty found in the pyramid city of Memphis (10) and the valley temple of Mycerinus (11).

Fig. 6.46 Possible use of a bearing stone to change the direction of the pull of ropes.

This could have been achieved only by putting it into an oblique shaft or crane (Fig. 6.46). In a vertical position, the weight pulled could have been moved only at an angle of 45 degrees. It could have well served, therefore, to lift or lower heavy weights—for example, a pillar or a colossal statue. We have here a primitive forerunner of a pulley, or a so-called *lanc pulley*, firmly attached to a shaft. The existence of this device seems to indicate that real pulleys made of a wheel with a grooved rim did not yet exist. M. Idris has suggested to me that bearing stones would have been superior to even wooden pulleys because the wooden pulley sides would have been too fragile to bear heavy loads.



Fig. 6.48 Pulley wheel from a temple of the 18th Dynasty (10) and a temple of Amenhotep III (11).

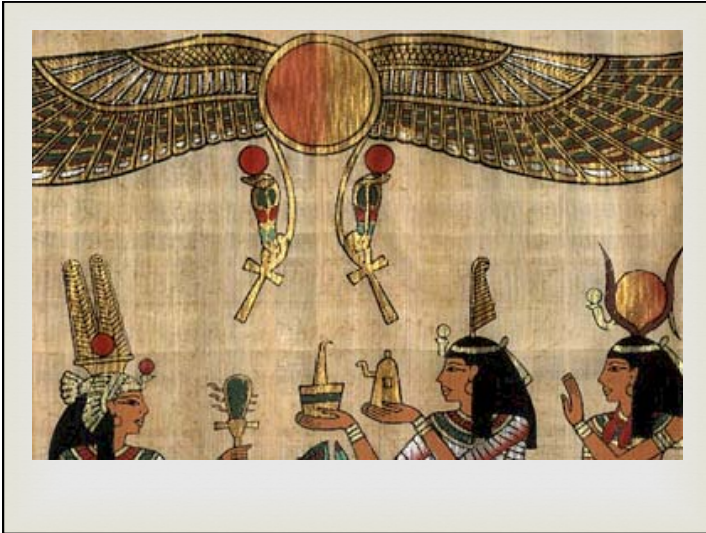


Fig. 6.49 Non-rotating pulley wheel from the 18th Dynasty (10).

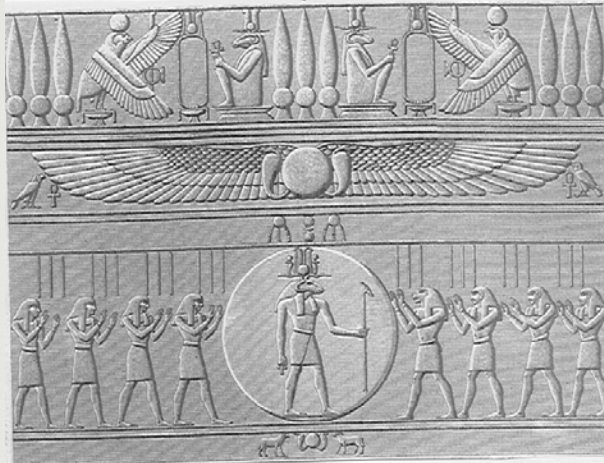


Fig. 6.50 Stone pulley wheel from the 18th Dynasty (10).





Pulley or Gear?





Core Team

- Dr. Mory Gharib, Professor of Aeronautics, California Institute of Technology
- Daniel Correa, LI.D, Universidad del Sol, Cuernavaca, Mexico
- Emilio Castano Graff, Graduate Student, California Institute of Technology
- Dr. Elizabeth Barber, Occidental College
- Troy Chaput, Ironworkers Union
- Edward Harrison Van O'Linda II
- Edward Teets, NASA Meteorologist
- Dr. Leland Shapiro, Pierce College
- Dr. Nabi, Pierce College
- Mark and Melanie Cripe

Is the Wind Theory Feasible?

450-ton obelisk (100 feet tall)

"Slave" Method:

- 6,500 workers, 3000-foot ramp, several days.

"Charlton Heston Method" (aka Sand Pit Method)

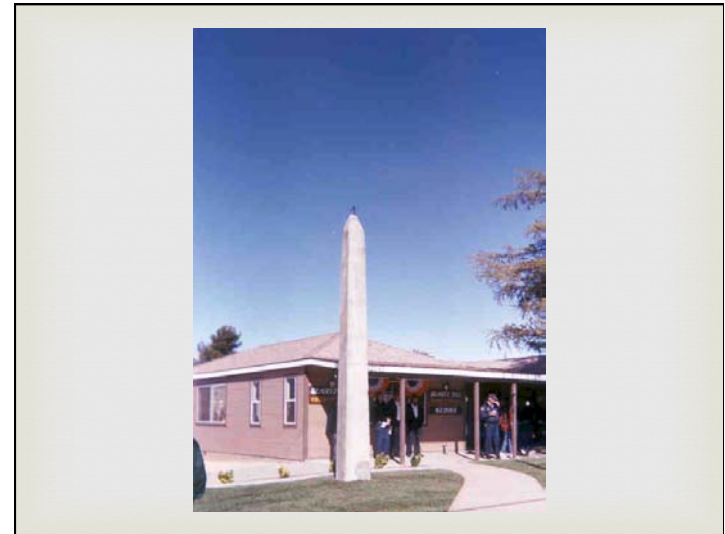
- 3,400 workers, 3000-foot ramp, 5 hours.

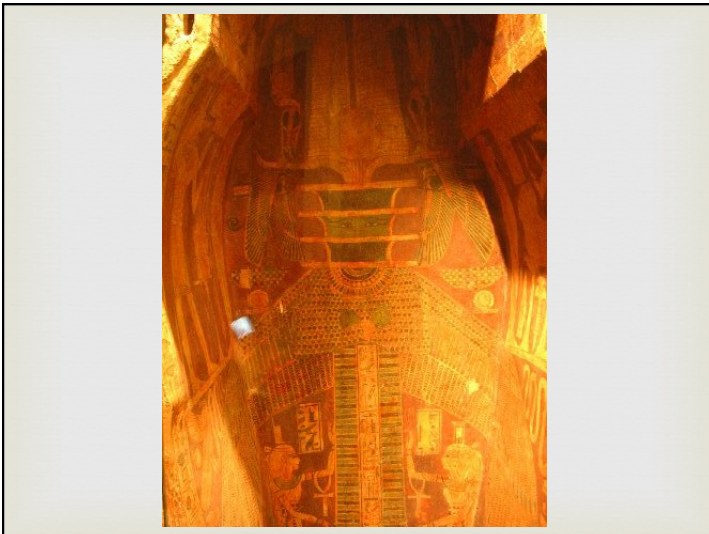
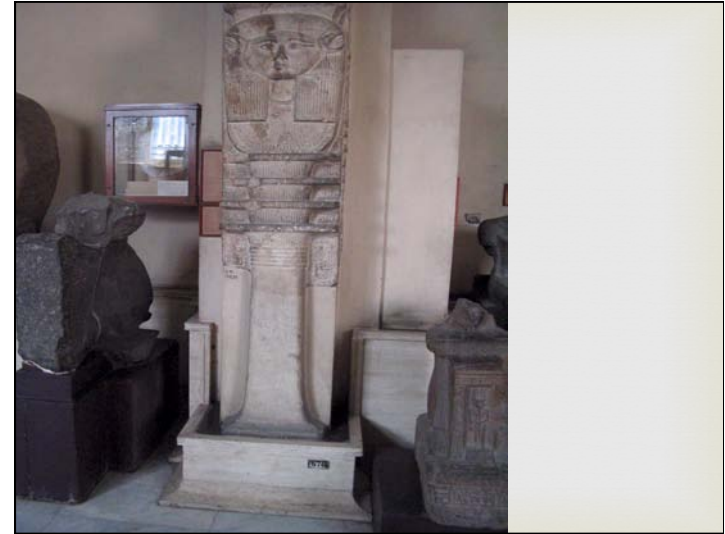
Kite Method

- 16 workers, 8 kites, 48 pulleys, 120-foot tower, 6 hours.

Dr. Mory Gharib, Caltech







Unsteady Force

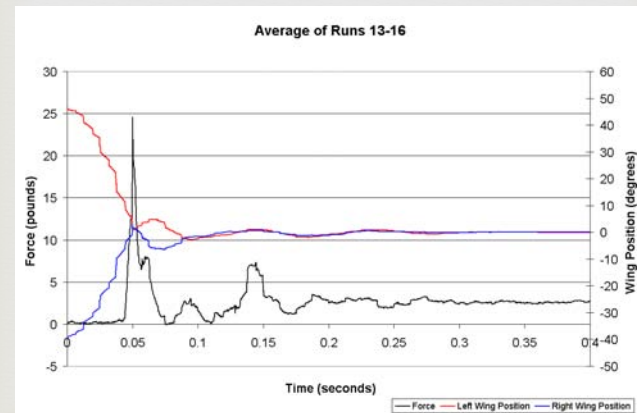
- We noticed the huge advantage that unsteady forces could give us during our field tests.
- This inspired us to take the first step toward antiquity – to test in the wind tunnel a simple land-sail-type kite designed specifically to produce unsteady force spikes.



Wind Tunnel Tests



Test Results





History Channel Documentary Trailer Flying Pyramids Soaring Stones

Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover.

Mark Twain

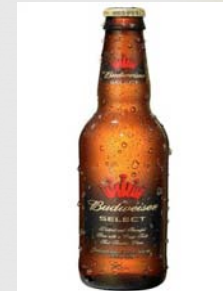
Perma-zyme (active ingredient enzymes)

- Mix the ground thoroughly with water
- Mix the Perma-zyme with water and mix with the soil.
- Compact the ground
- Wait three days



Budweiser

- Permazyme Ground **119.6** pounds per cubic foot (compacted with 11-ton roller)
- Beer-treated Ground **110.6** pounds per cubic foot (compacted by six kid's feet)
- Native Ground **102.8** pounds per cubic foot (non-compacted)





Is Beer Literally the Foundation of Civilization?

- Budweiser pad
- Yeast pad
- Water pad
- Beer and Yeast Pad



Coors



- Native Ground: 112.7 pcf
- (pounds per cubic foot)
- Ground Mixed with Water and Compacted: 114.8 pcf
- Ground Mixed with Beer and Water and Compacted: 121.2 pcf

Maximum density of native soil 132pcf

Beer treated soil relative
compaction: **91.8%**

Water treated pad relative
compaction: **87%**

Native ground relative
compaction: **85.3%**

Typical grading and
earthwork guidelines relative compaction
requirements: **90%**



Transporting 2-Ton Stone



Stone at Beginning of Ramp



Mid-way!



Positioning

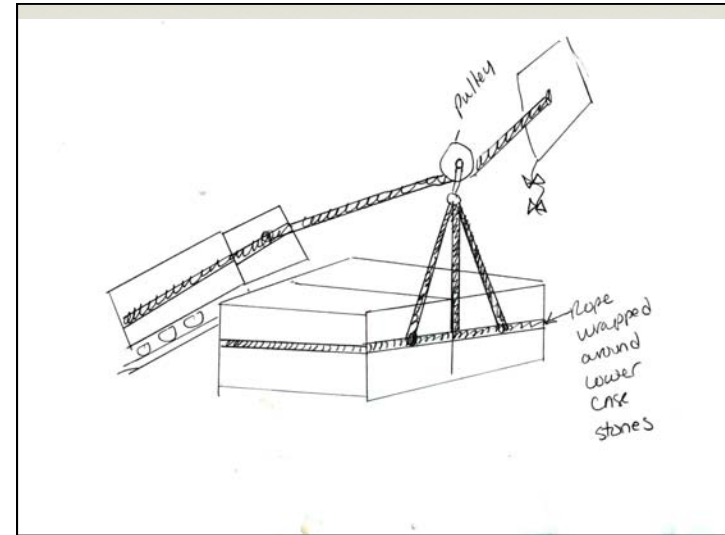


Perfectly Placed

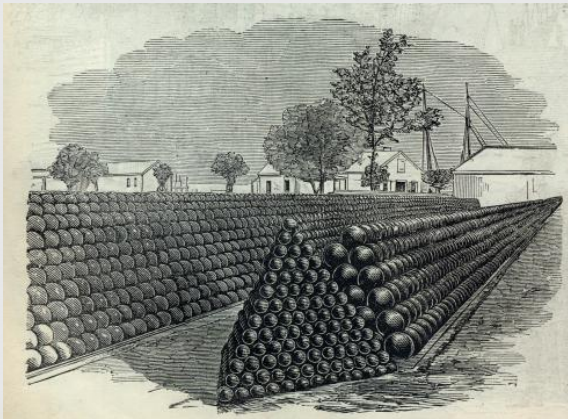


Nylon Traction Sail: July 2004





Cannon Balls

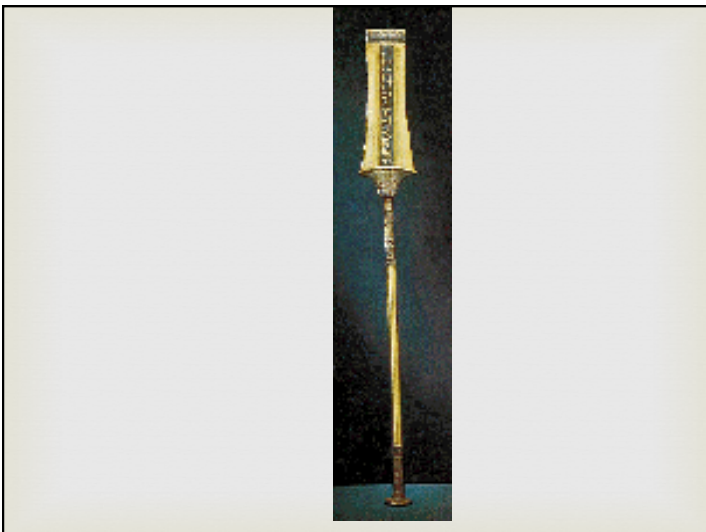








Scepter or Chisel?





Wings World Quest Expedition Flag #11



Wonders of the Wind

North Dakota Roads

- Bakken Formation
- Oil and water trucks battering the dirt roads
- Gravel vs. Permazyme



North Dakota News Video



Wildrose in **April 2012** with no grading since September 2011.



Landing Strip, Minot ND

- Haul Roads
- County Roads
- Fire Roads
- Driveways
- Feed Lots
- Equipment Yards
- Airstrips
- Potato Sheds
- Ponds

Can we use this idea for other monuments?



- Megaliths of Malta
- Easter Island
- Stele of Ethiopia
- Stonehenge
- Temple Mount
- Central America
- South America

Mars by Carl Conkle



Mars by Gregg Miller





Cal Poly Pomona

Gary McGavin

- 106-ton true pyramid
- 53 2-ton pyramid stones
- Collaboration with:
 - Cethys University, Tijuana,
 - University del Sol, Cuernavaca
 - Precast/Pre-stressed Concrete Manufacturers Association of California



Moving the 2-Ton Stone Video

Soaring Stones



Discoveries

- Wind as an engine of construction
- Symbols with distant origins as tools
- Beer as a soil stabilizer
- River rocks as natural ball bearings
- Carvings on the pedestal of the Central Park Obelisk
- *Constant* unsteady force

Thus, the task is not so much to see
what no one yet has seen, but think
what no one yet has thought about
that which everyone sees.

Schopenhauer