



# Apollo 17's Landing Site on the Moon

Seton Keough High School

Victoria Alexander

Sarah Balles

Nicole Backert

Sarah Tillman

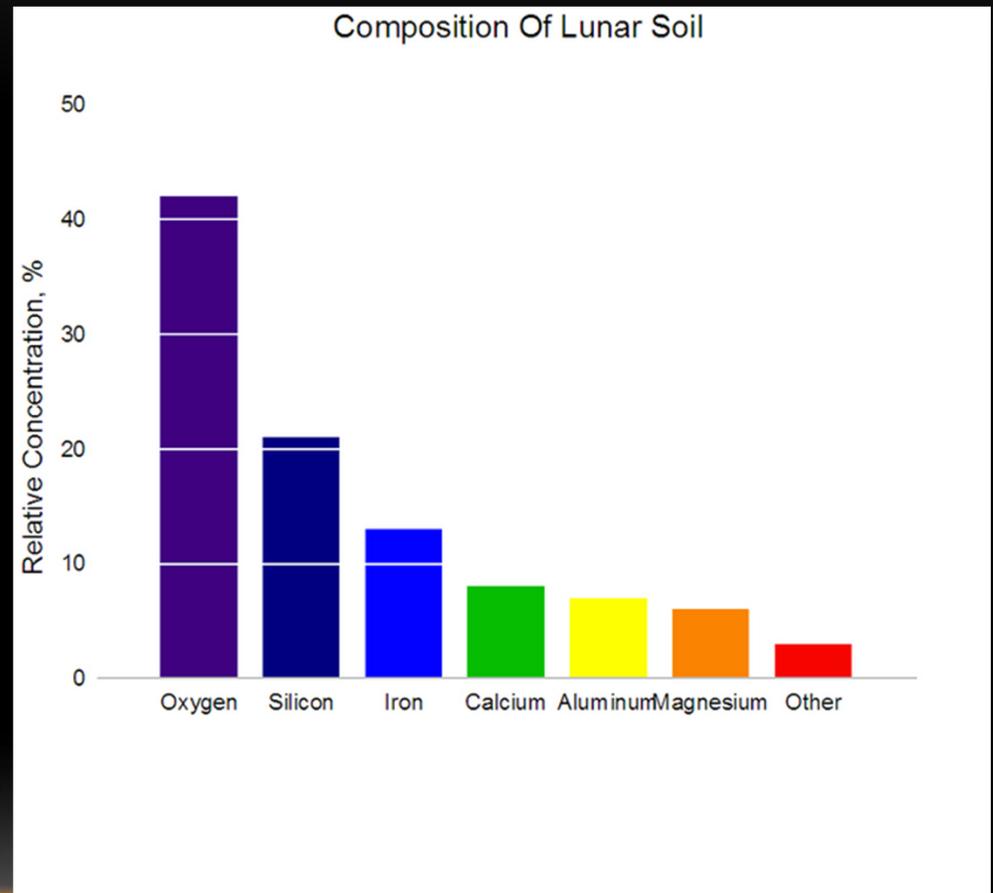
Emily Burgess

# TABLE OF CONTENTS

- Composition
- Formation
- Lunar Landscape

# COMPOSITION

- Most common elements found on the moons surface are :
  - Oxygen , Silicon, Iron, Calcium, Aluminum, and Magnesium.



# FORMATION

- There are 4 main theories about formation:

**Fission hypothesis-** earth lost a piece mass where the pacific ocean now is. Proposed by George Darwin is now rejected because the basin of the ocean is much younger then the moon is.

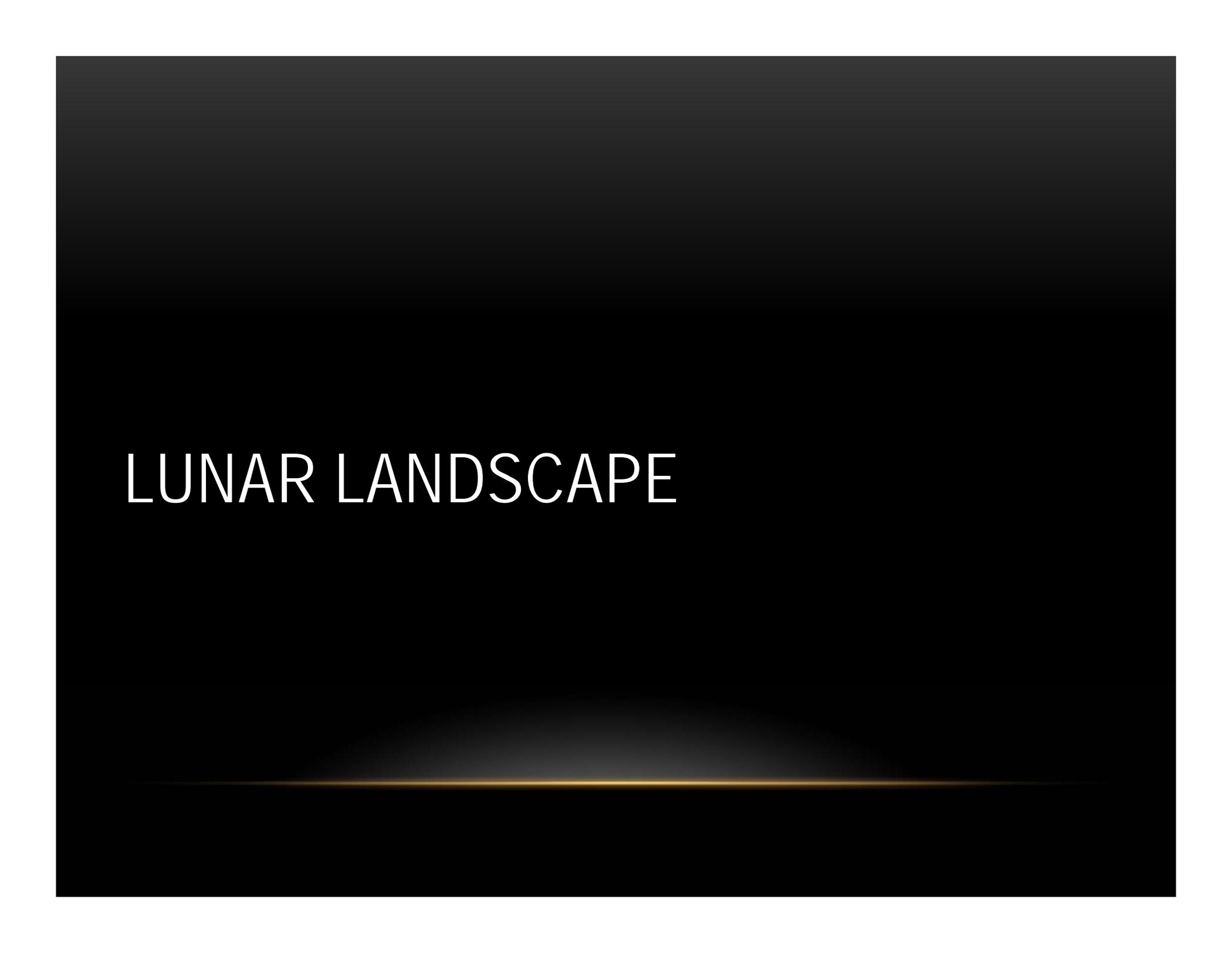
**Lunar capture-** the earth captured the moon in its gravitational pull. This hypothesis is rejected because for if it happened the moon would have collided with earth.

# FORMATION CON'T

**Co-accretion (Double Planet) hypothesis-** this says the earth and moon formed together. The problem is it does not explain the angular momentum of the Earth-Moon system.

**Giant impact theory-** involves two bodies colliding together during the early evolution of the solar system. This is the most popular theory at this time.

# LUNAR LANDSCAPE

The image features a dark, gradient background that transitions from a deep black at the top to a slightly lighter, dark grey at the bottom. A thin, horizontal, glowing orange line is positioned near the bottom edge, creating a subtle horizon effect. The text "LUNAR LANDSCAPE" is centered in the upper half of the image in a white, sans-serif font.

# THE HIGHLANDS

- The lighter portion of the moons surface are the highlands.
- Also know as Terra.
- Formed about 100 million to 600 million years after the moon formed.
- Highlands are old and more cratered then Marias.



# TYPES OF TERRAS

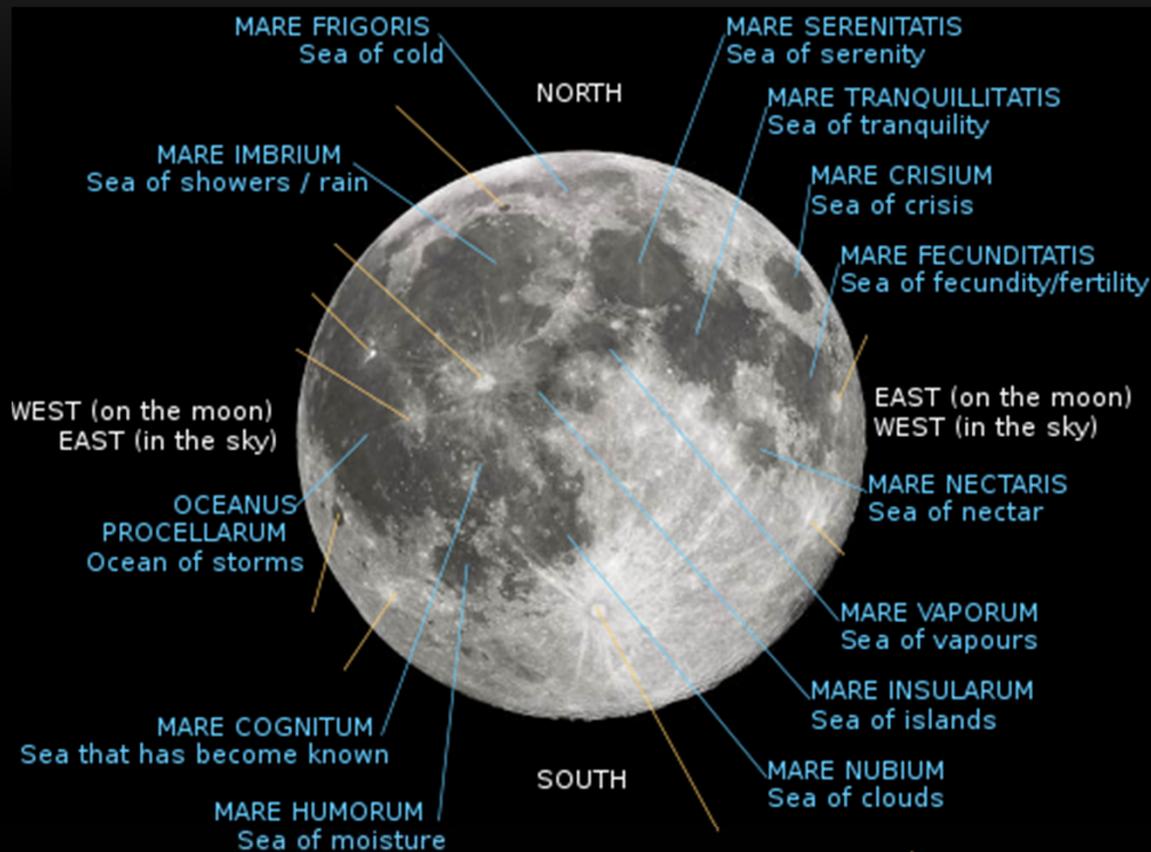
- Dome Terra- volcanic
- Regular Terra- smooth rolling hills
- Rugged Terra- ranges between mountains and rough hills
- Hilly Terra- round smooth hills surrounding basins and are closely clustered

# LUNAR MARE

- Mare when pluralized is Maria.
- Lunar Maria- large, dark basins on the earth's moon which indicate where ancient volcanic eruptions take place.
- Lunar Maria cover about 16% of the moons surface.
  - Most are located on the nearside (visible to earth)of the moon

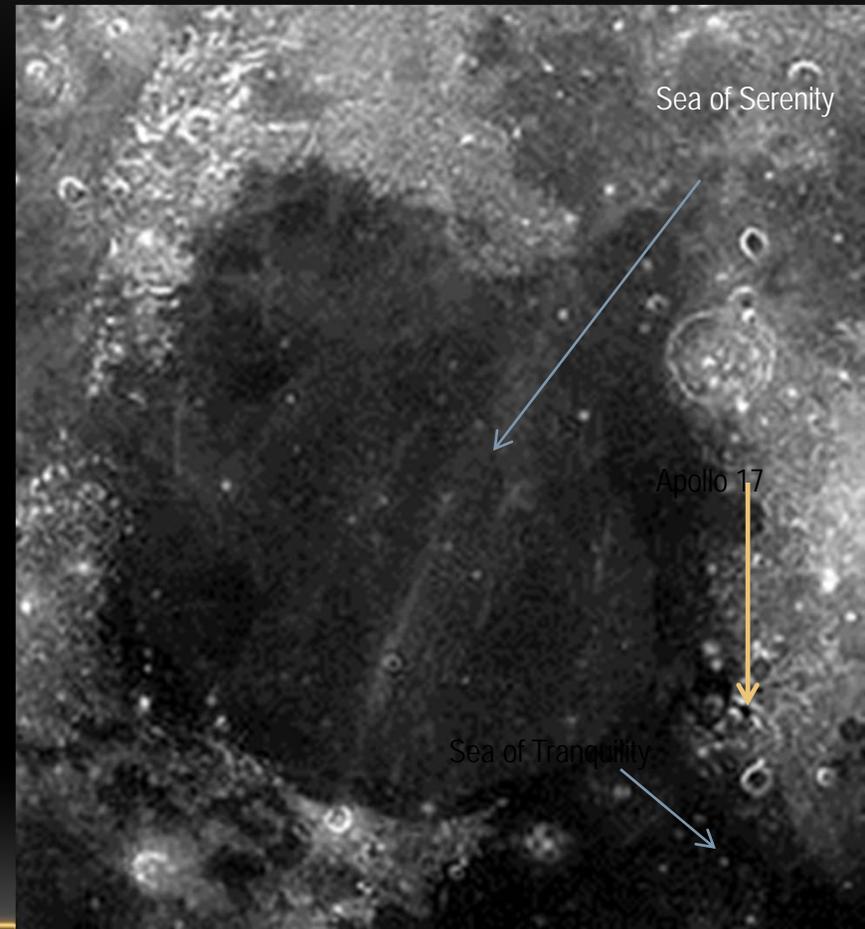
## Picture of all Lunar Marias

Written in Blue



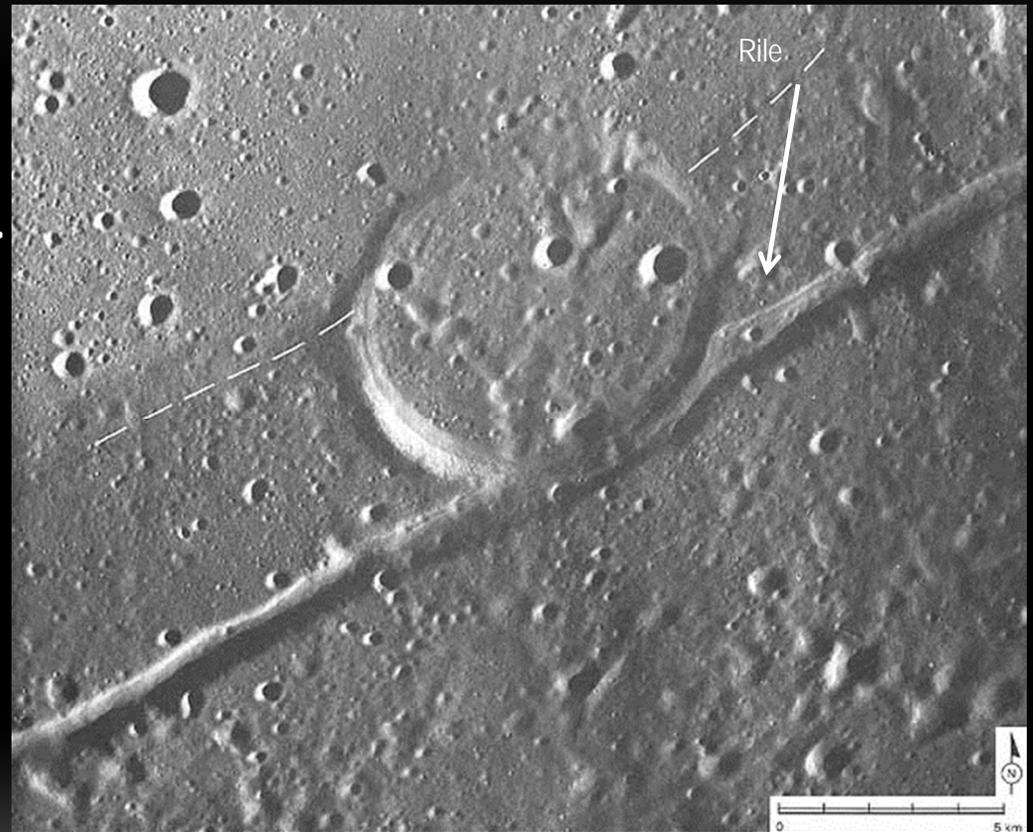
# LUNAR MARE

- Sea of Serenity is the largest Lunar Mare near the Apollo 17 landing site.
- This mare is 674km (419mi).
- Connects to the Sea of Tranquility.
- An example of Mascon- an anomalous gravitational region on the moon.



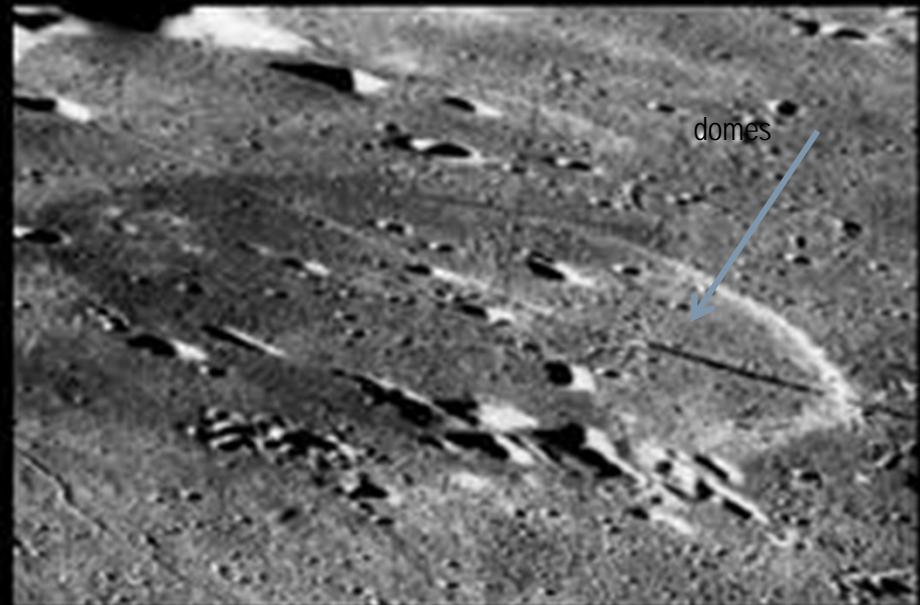
# RILES

- result from the formation of lava channels.
- Led to old volcanic vents.



# DOMES

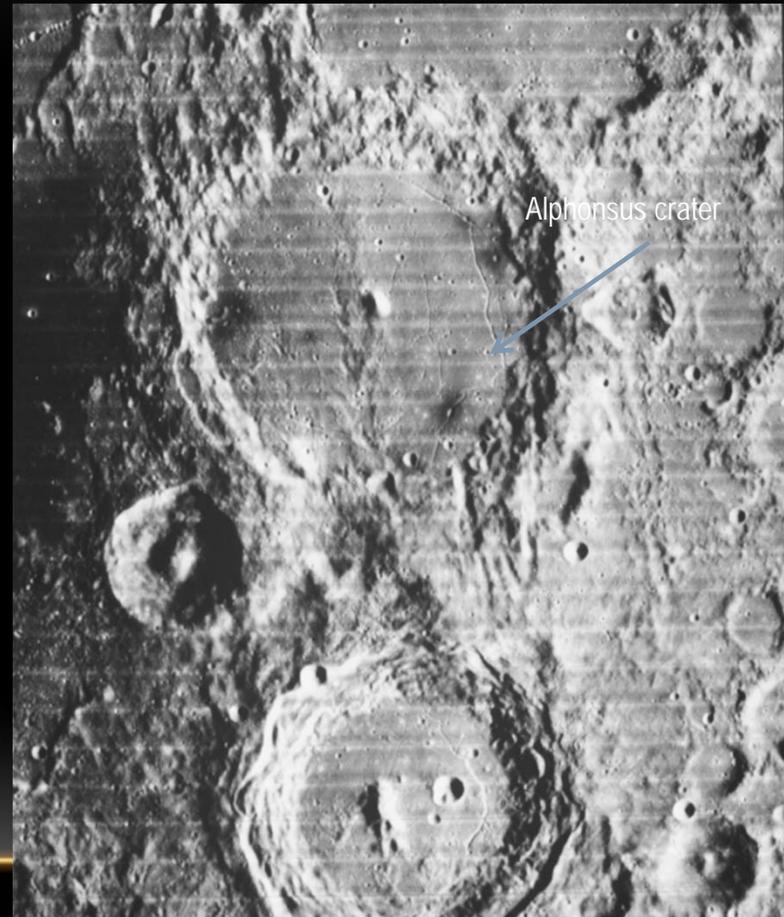
- Shield volcanoes found on the lunar surface.
- Lunar domes are wide, rounded, circular features.
- Some have a small peak in the middle.



A Genuine Lunar Dome ... from Apollo 17

# CRATERS

- Are formed when a something (asteroid or comet) collides with the surface at a high velocity.
- Over the span of 200 million years the moon has been hit about 1,700 times.



# WORK CITED

- <http://www.nasm.si.edu/collections/imagery/apollo/as17/a17landsite.htm>
- [http://en.wikipedia.org/wiki/Lunar\\_mare](http://en.wikipedia.org/wiki/Lunar_mare)
- <http://www.spudislunarresources.com/moon101.htm>
- <http://www.lpi.usra.edu/nlsi/education/hsResearch/resources/index.shtml>