

Rates of  
weathering  
are impacted  
by 3 things...

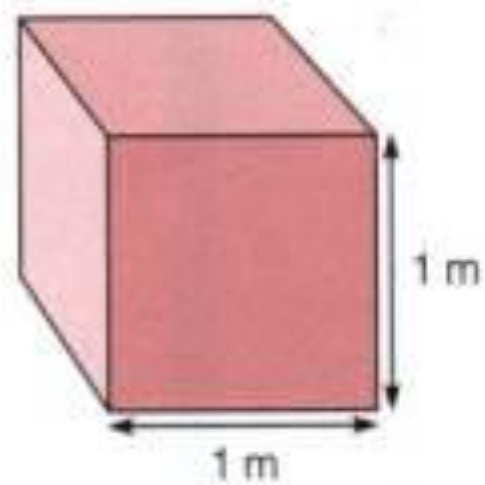
# 1. Rock Characteristics

Igneous and metamorphic  
rocks don't weather  
easily but Sedimentary  
rocks do

# 1. Rock Characteristics

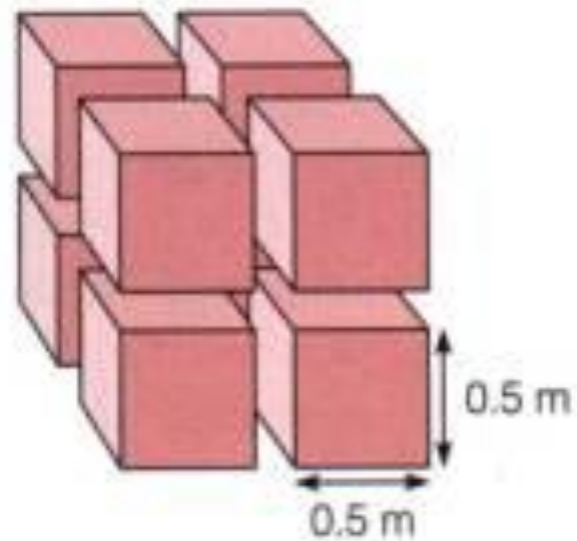
- More exposure means, **faster weathering**
- Time and size of exposed surface is also important

Surface area =  $6 \text{ m}^2$



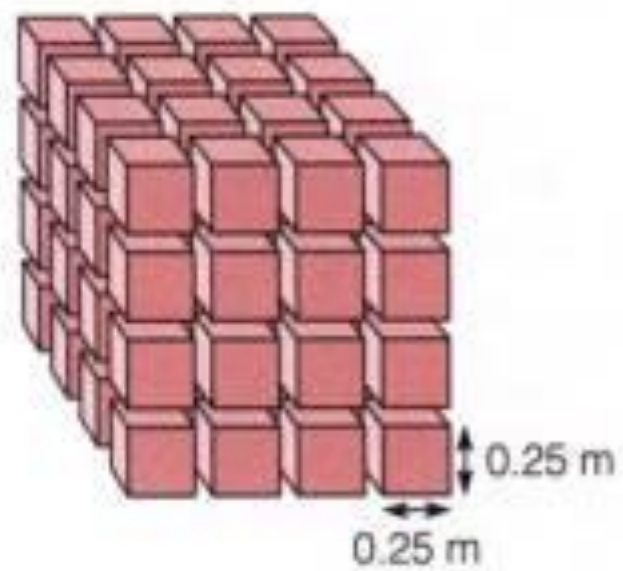
(a)

Surface area =  $12 \text{ m}^2$



(b)

Surface area =  $24 \text{ m}^2$



(c)

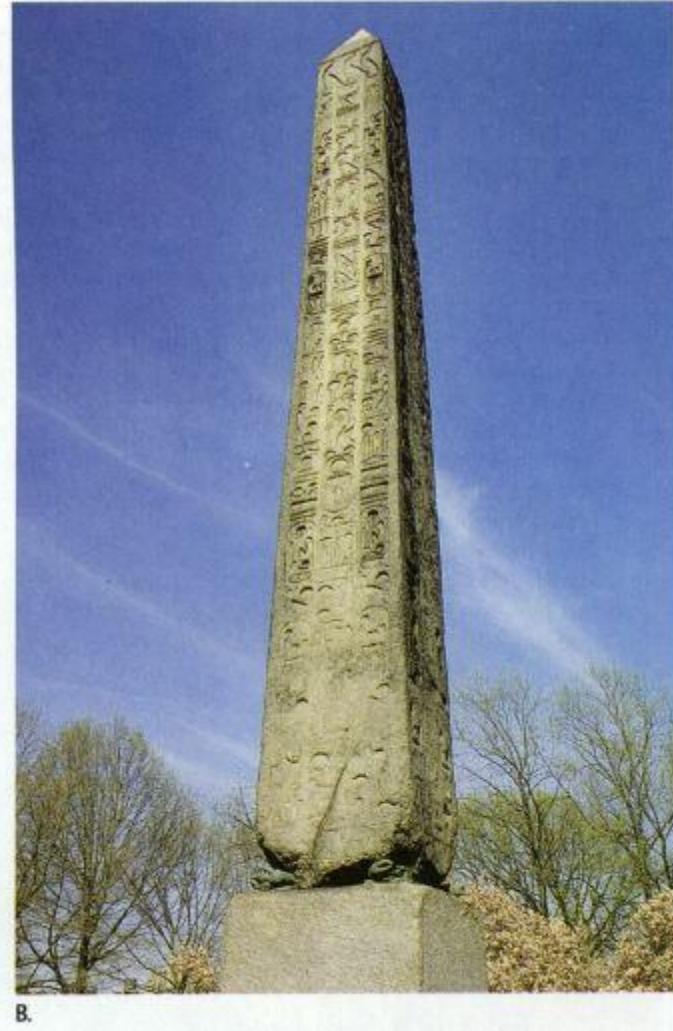
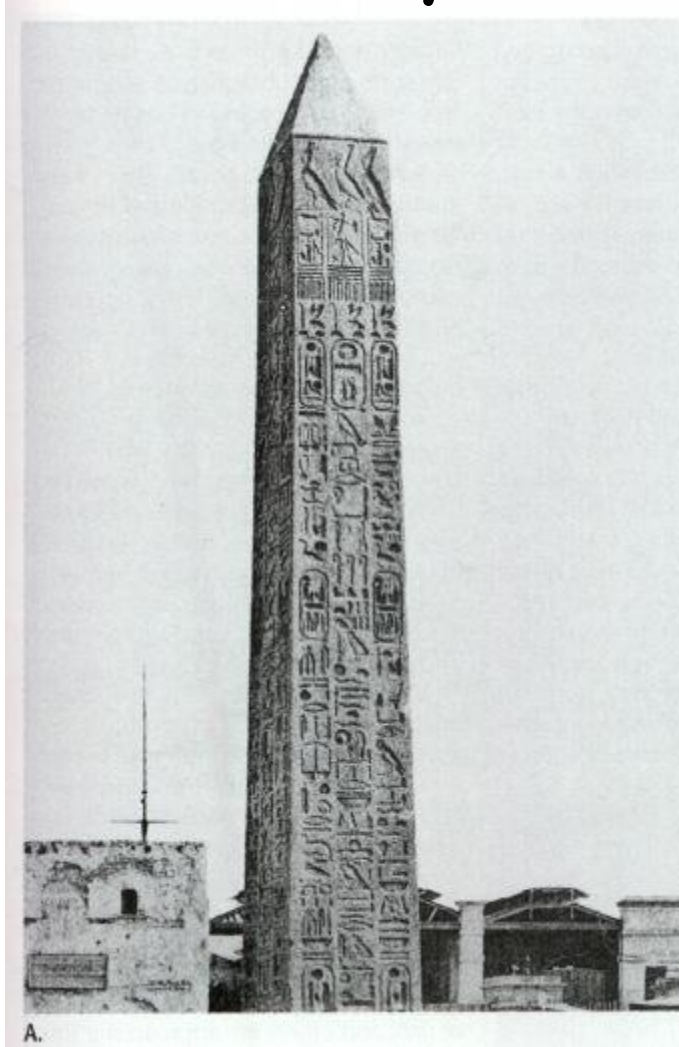
## 2. Climate

Environments with Wet and Warm climates have faster rates of chemical weathering.

## 2. Climate

- Slow weathering = very hot / very cold climates
- Rapid weathering = warm, humid climates

# Cleopatra's needle after only one century in New York City



## 3. Topography

- The steepness and elevation of a rock's resting place, impacts rate of weathering