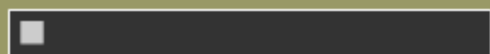


# Streams & Rivers

## Unit 4 – Ch 6





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# Tigris – Euphrates River





# Nile River



## The Nile River

©2008 HowStuffWorks



# Yangtze River



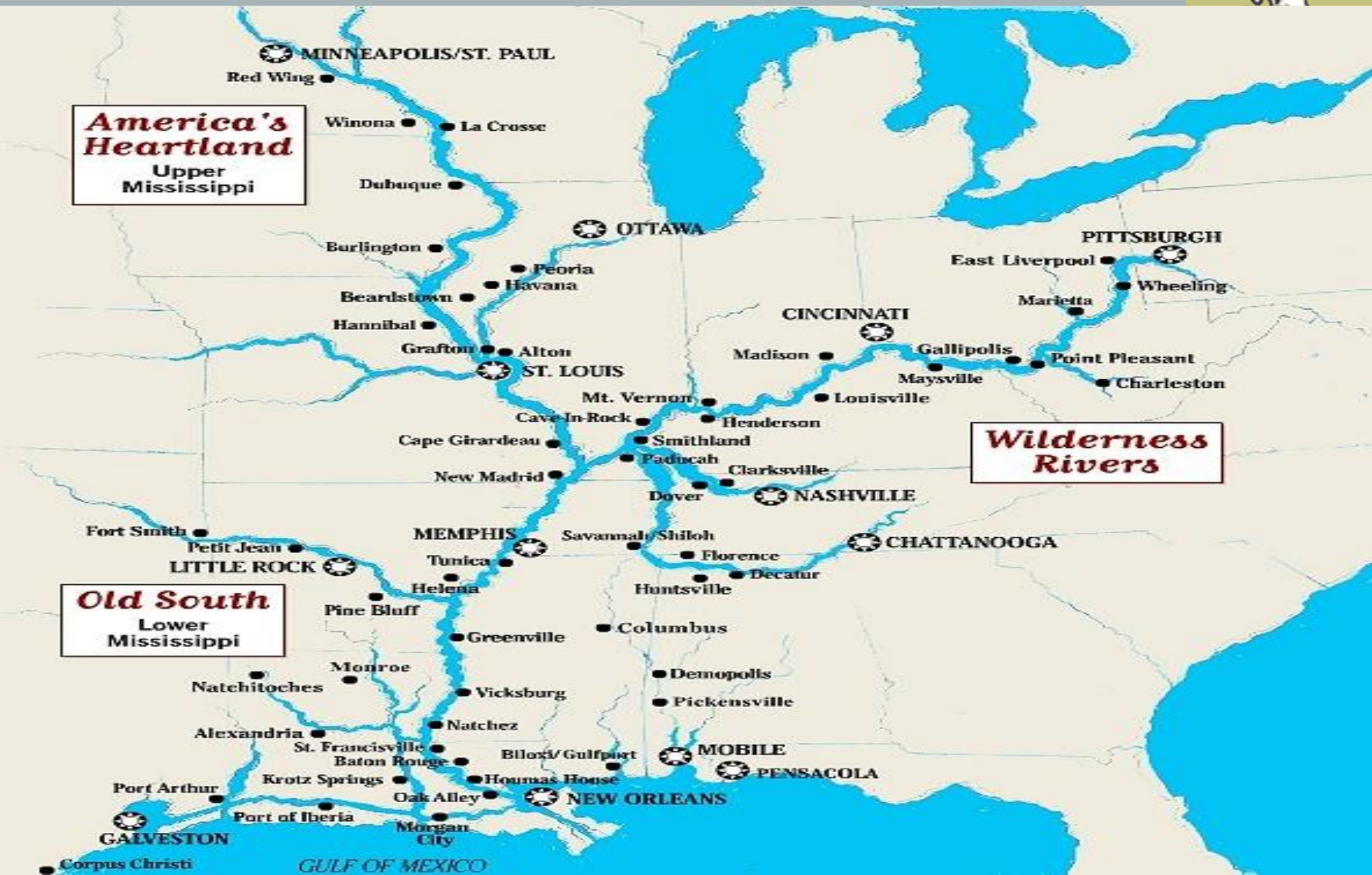
# Ganges River



# Amazon River

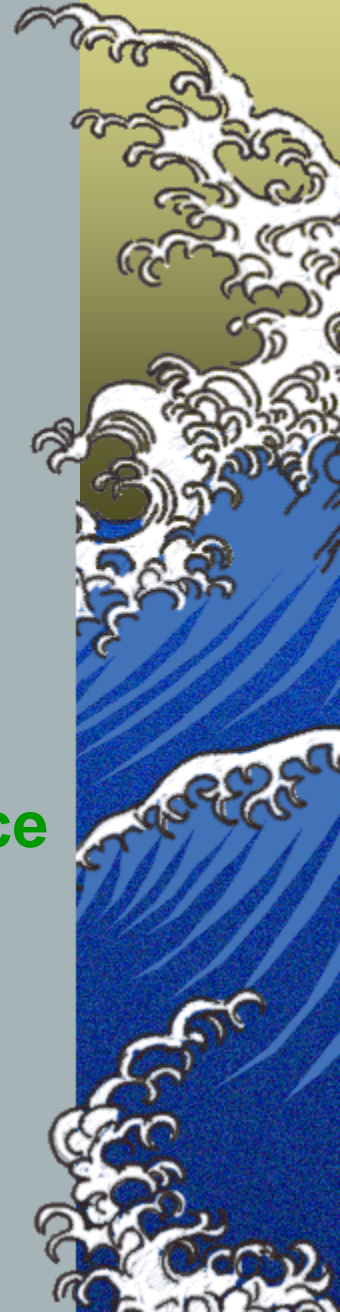
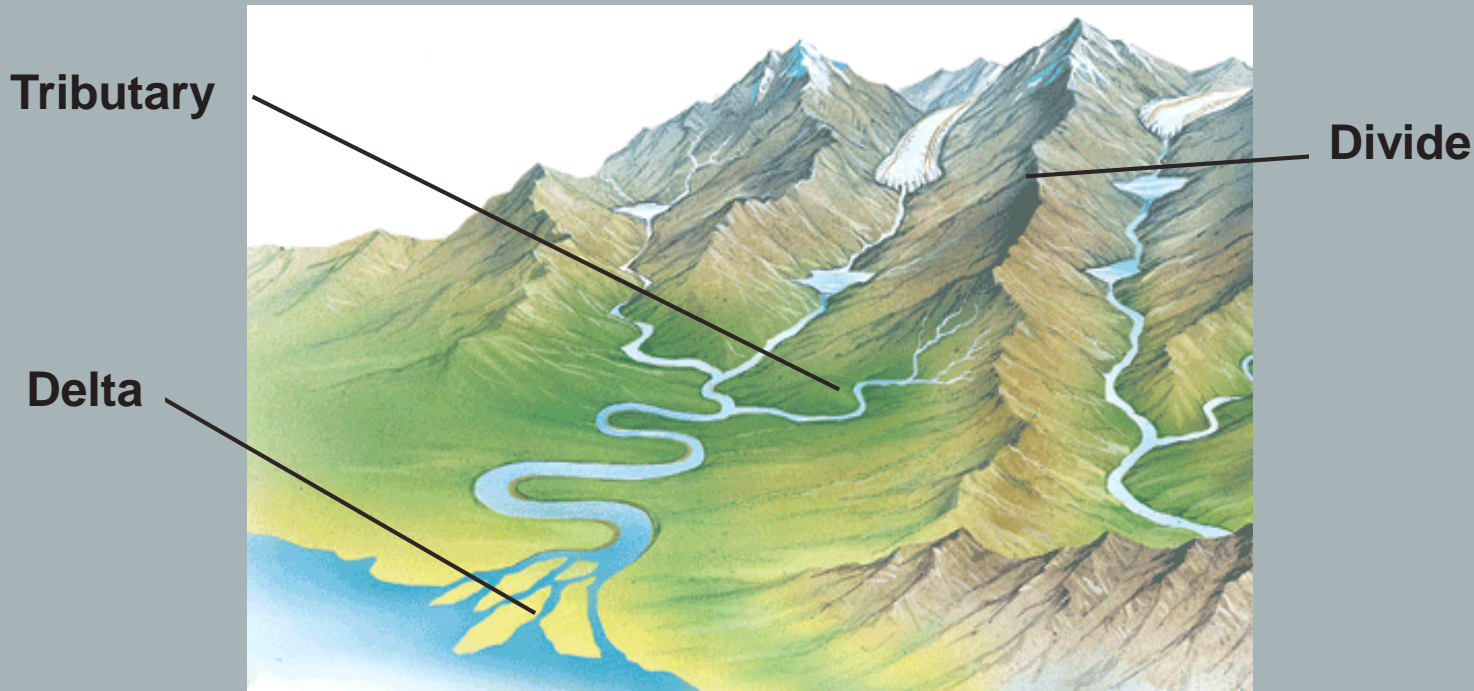


# Mississippi River





# River Systems



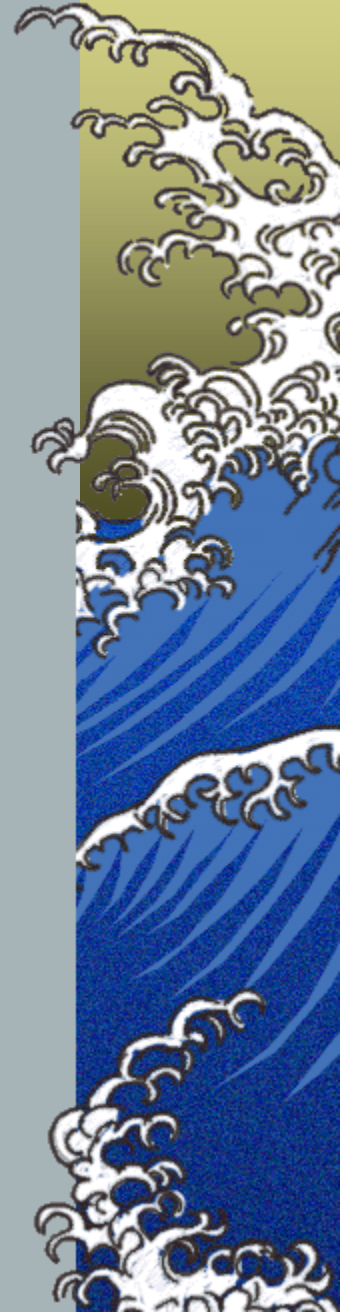
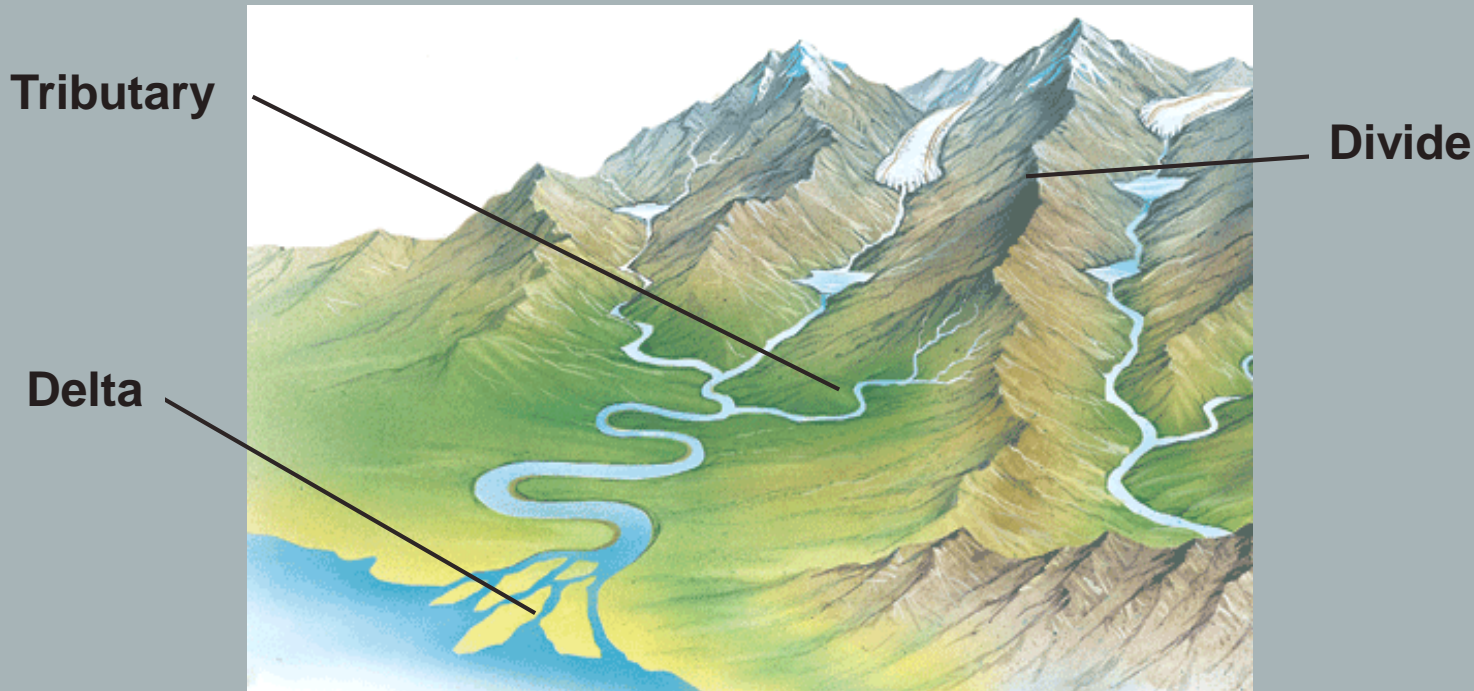
❖ Headwater: Water that **feeds** rivers & gives its **source**

❖ River Basin: Land area that **drains** INTO larger **RIVER**

❖ Watershed: **Smaller** area of land draining into smaller **LAKE/WETLAND**

❖ **Many watersheds = 1 river basin**

# River Systems



❖ Floodplain: **Low-lying** area next to rivers where **overflown river** spreads

❖ Mouth: **END** of river where it meets a larger body (**lake/ocean**)

❖ Delta: Deposition of **sediments** formed at mouth



# Watershed (*River Basin*)



# Mississippi Watershed:

## *Largest in US*



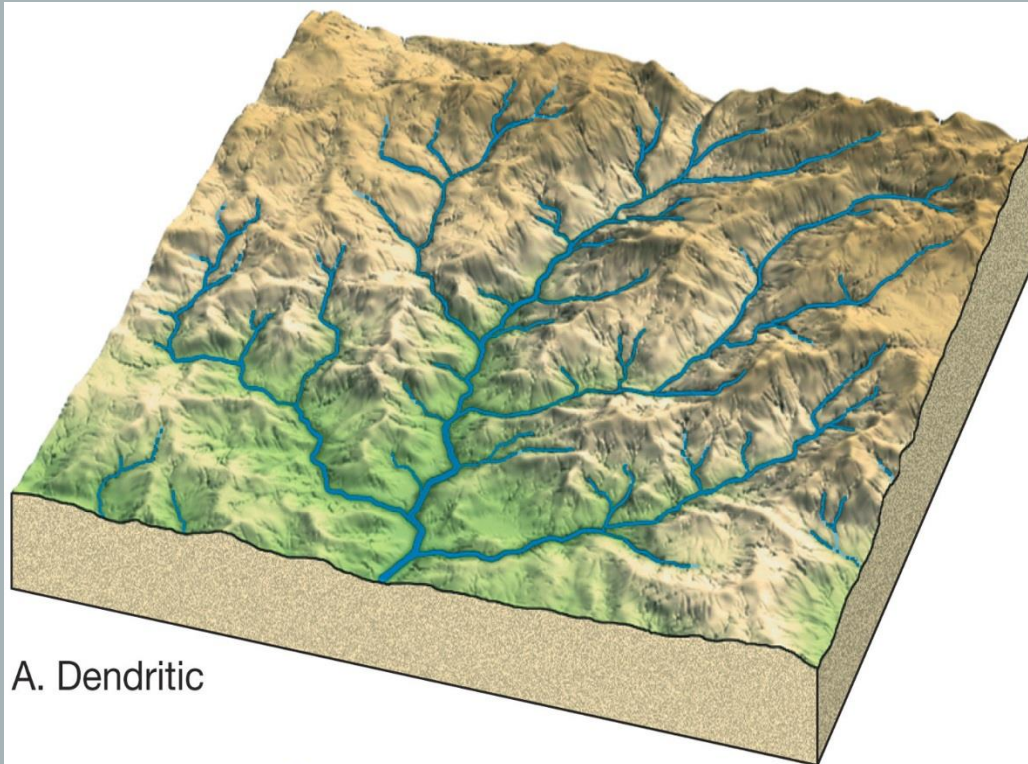
0 250 500 1,000  
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# River & Drainage Patterns

❖ High up on *mountains*, narrow and V-shape channels form due to *downward gradient*



A. Dendritic



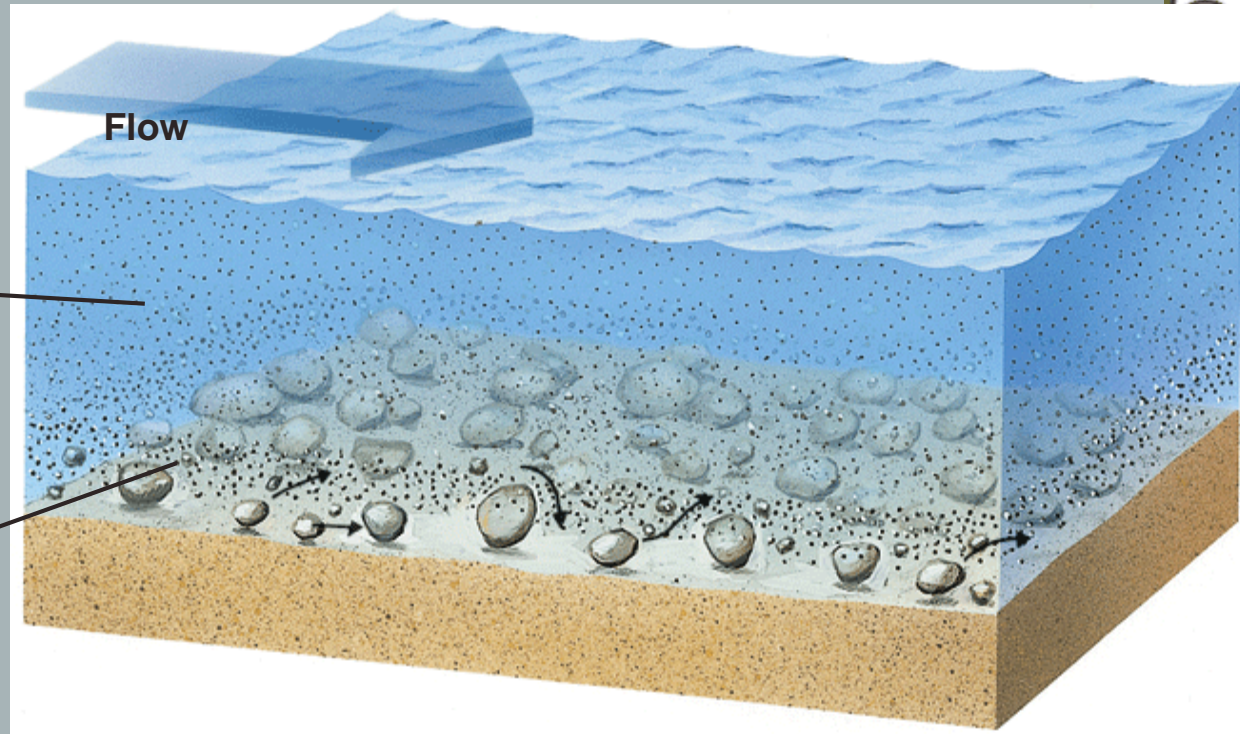
# Stream *Erosion & Deposition*

❖ Rivers erode and deposit materials

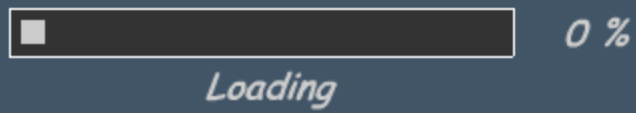
❖ VELOCITY: Flow rate allows *transport* of materials

Suspension: Silt & clay held up by moving water

Bed Load: Rocks, gravel, & sand pushed & rolled along



Solution: Dissolved materials that cannot be seen





**Alluvial Fan** – *Deposits* of river when stream *spreads out* from steep to gentle slope







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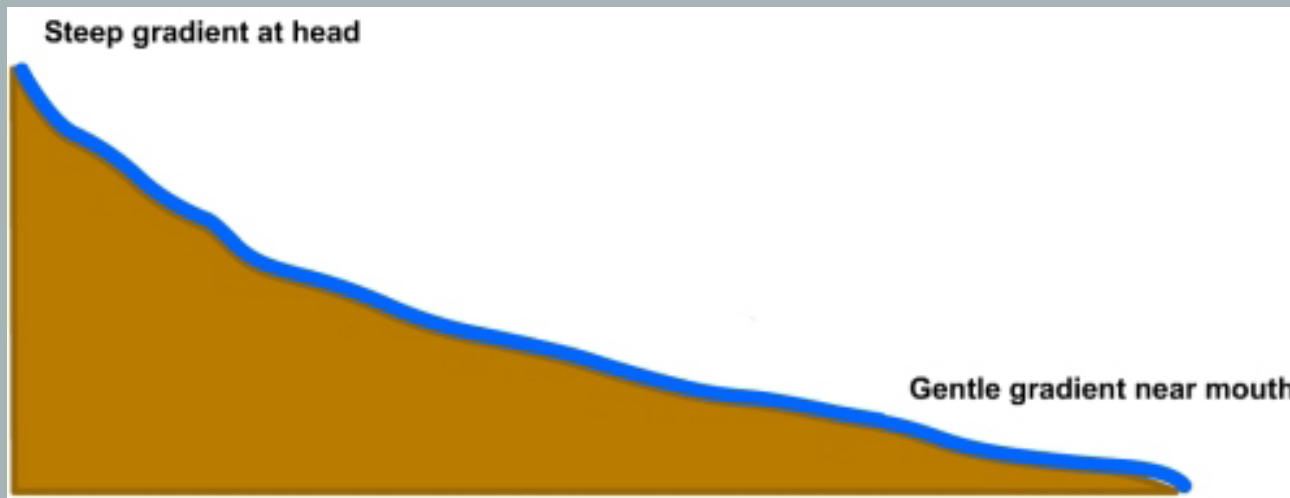


# Pathway of Streams

❖ GRADIENT: Ratio of *elevation drop* per horizontal *distance*

❖ High Gradient = *Steep* slope; *fast* flow; *straighter* path

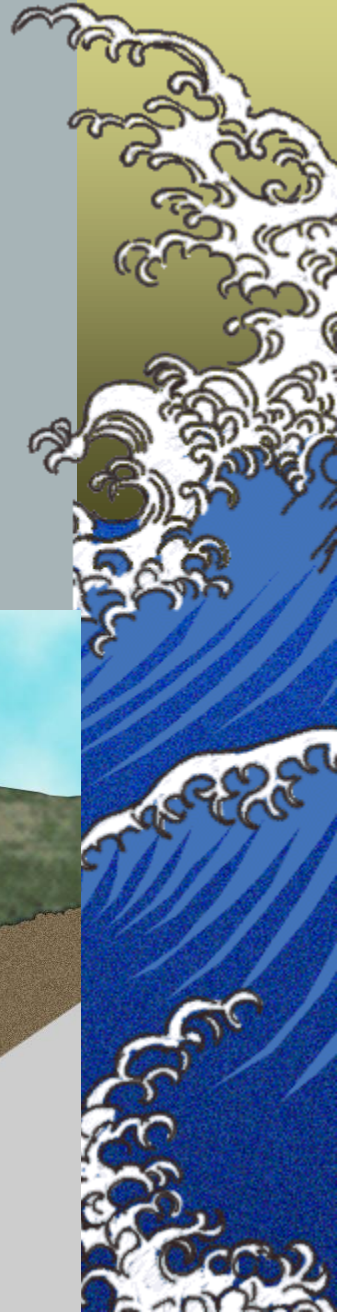
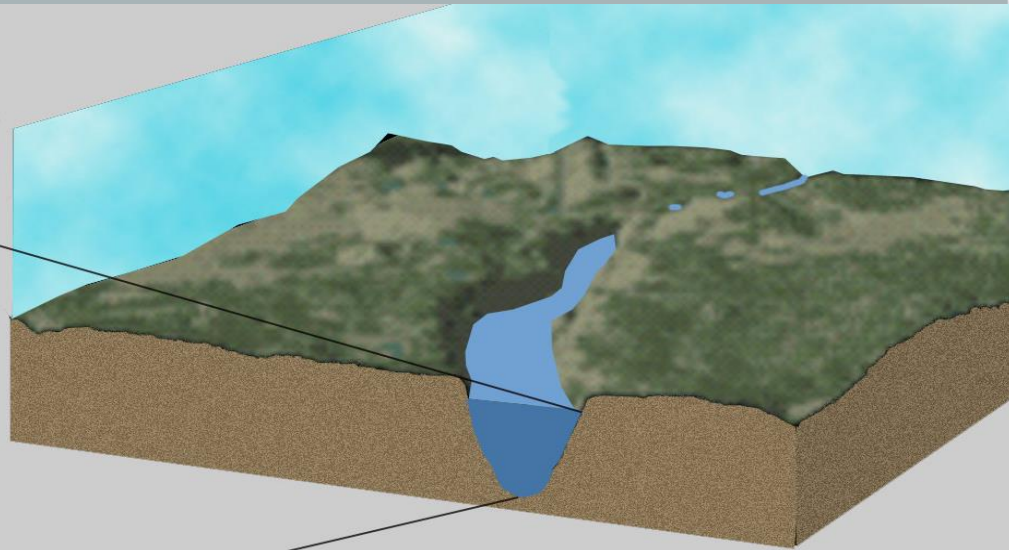
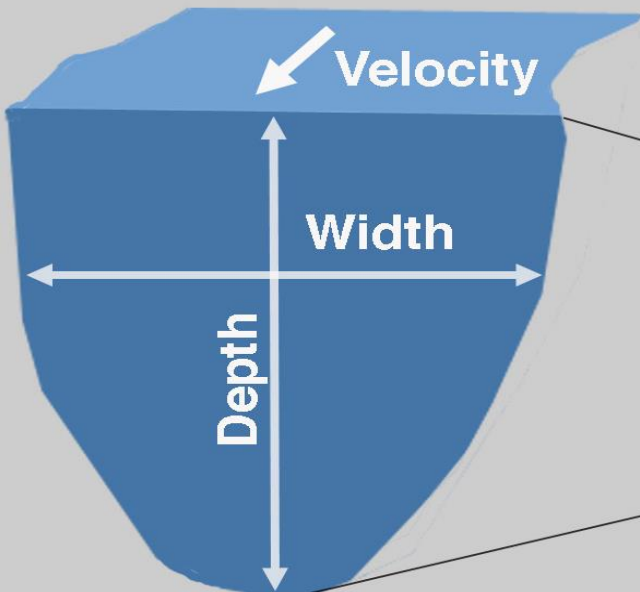
❖ Low Gradient = *Gentle* slope; *slow* flow; *meandering* path



# Pathway of Streams

❖ DISCHARGE: *Maximum* depth stream can hold before flooding

❖ High Discharge: River becomes *wider*, *deeper*, and *faster*





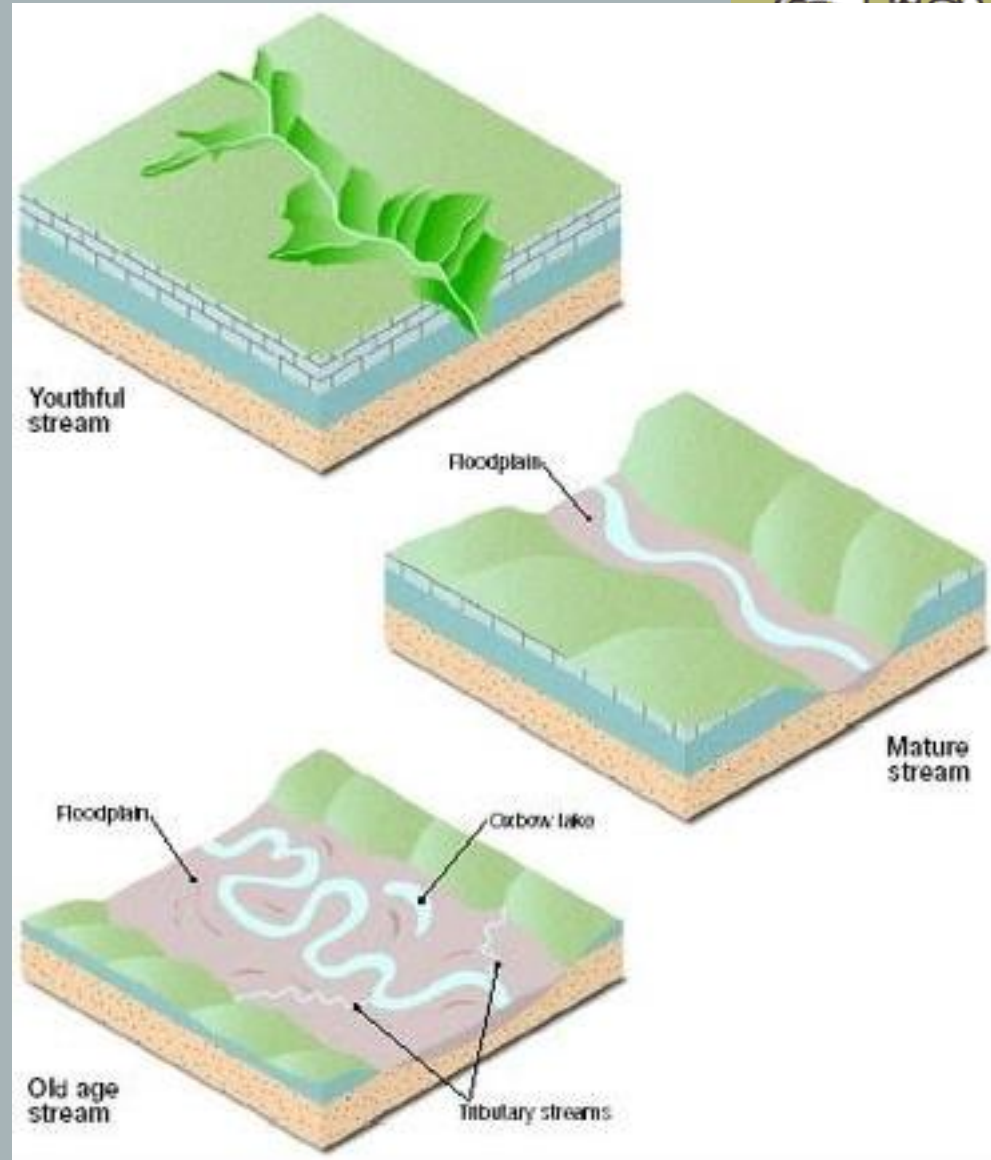
# Age of Streams



❖ Youngest: **Straighter** flow with surrounding **vegetation** growth

❖ Mature: **Slight meander** with **erosion/deposition**

❖ Oldest: **Pronounced meander** with **oxbow lakes**

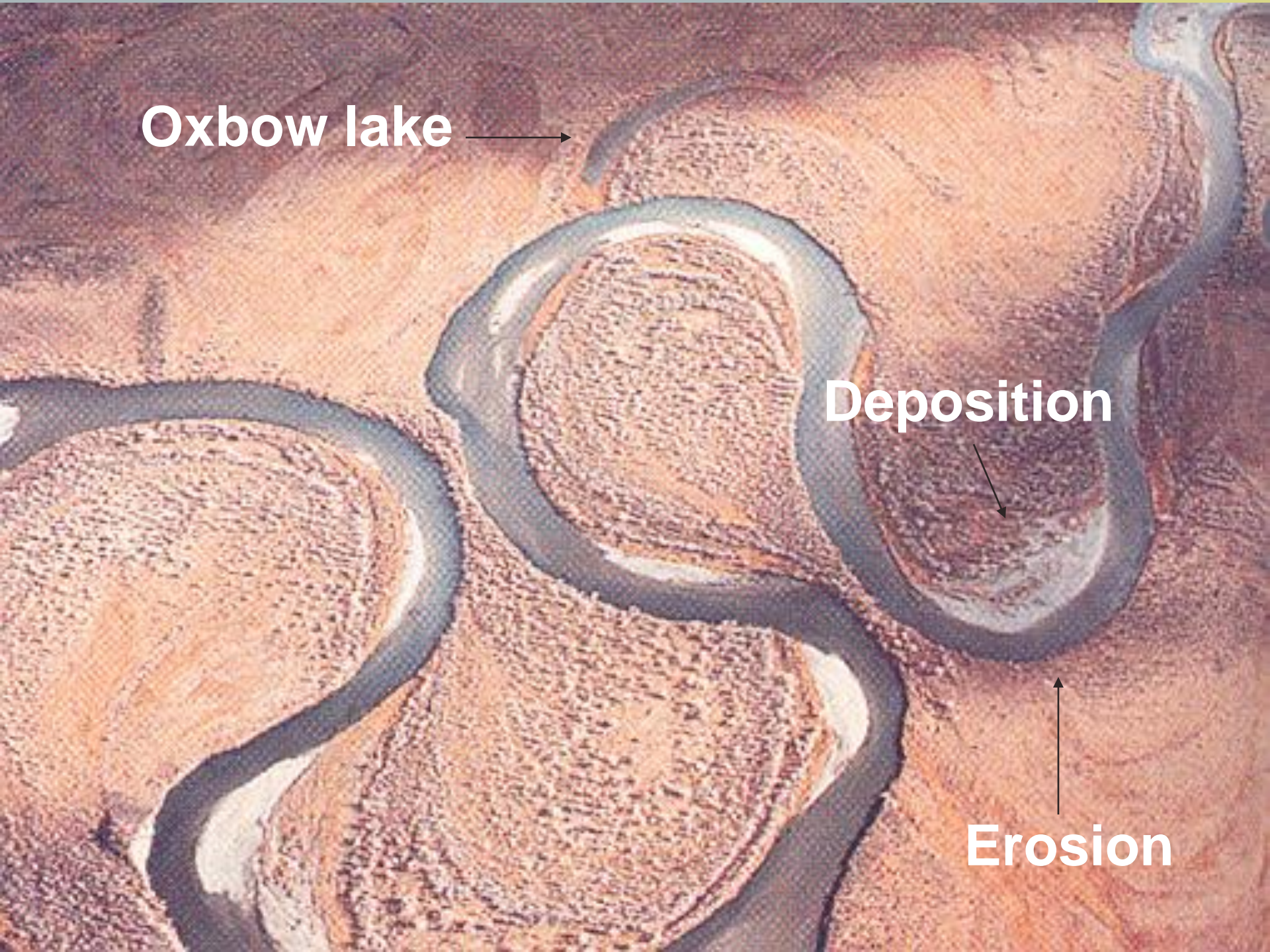




**Oxbow lake** →

**Deposition** ↓

↑  
**Erosion**





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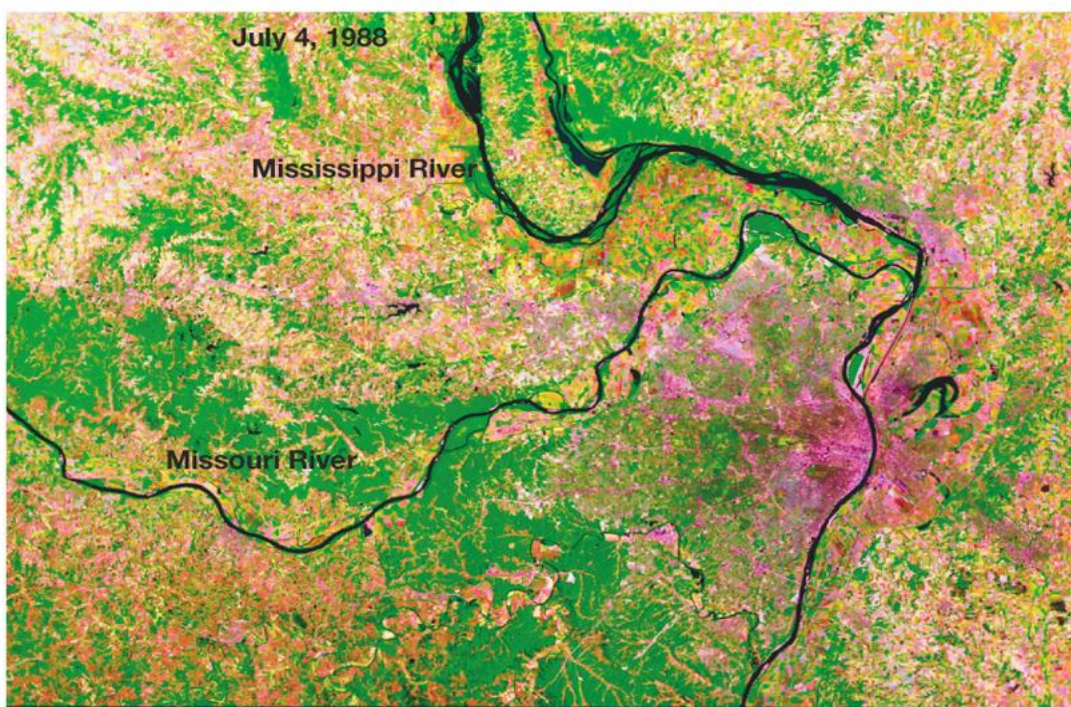




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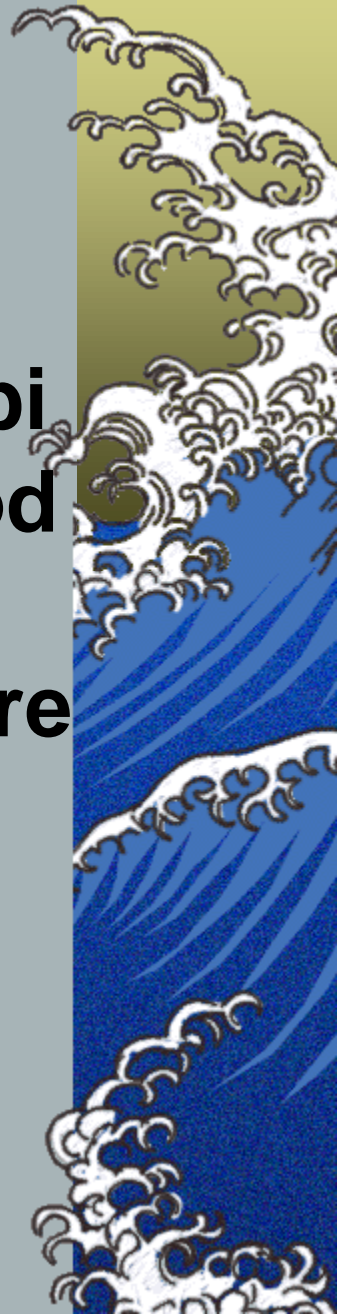
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# Mississippi River Flood

## 1993 Before and After





River

Break in Levee





