The Geologic History of Where You Are

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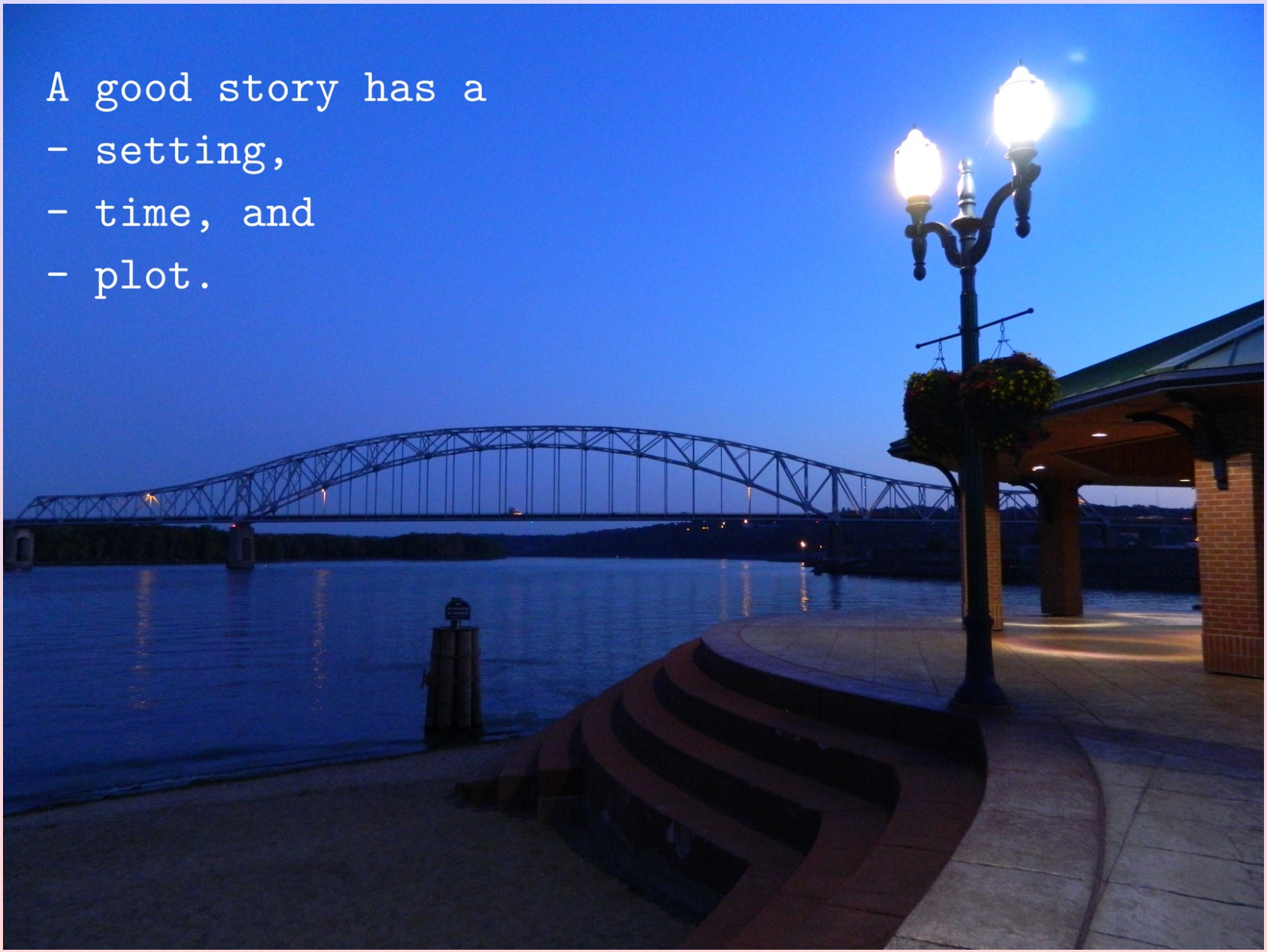
Start with “Why?”

But why geology?

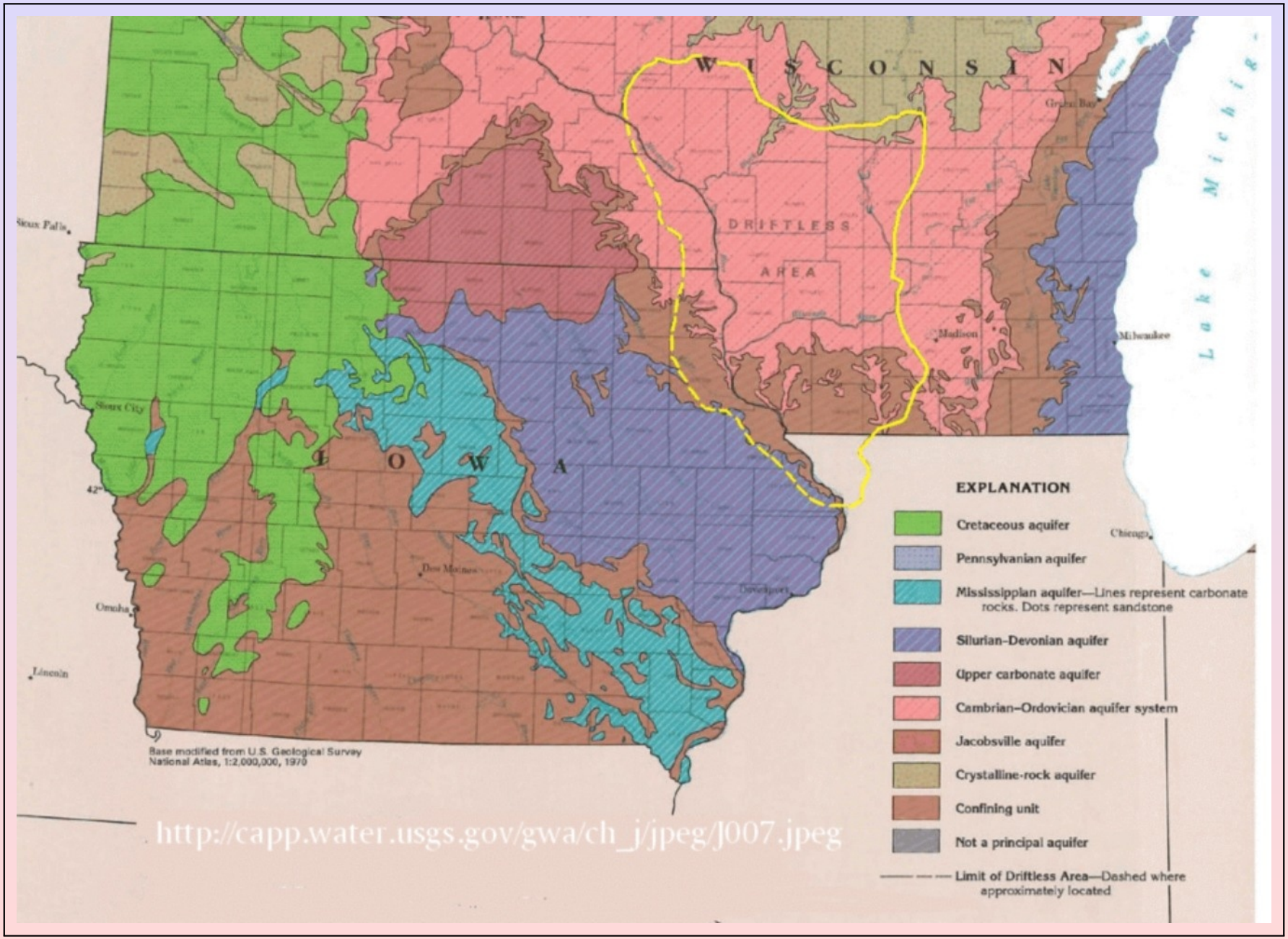
Not rocks for jocks!

The Story of the Earth

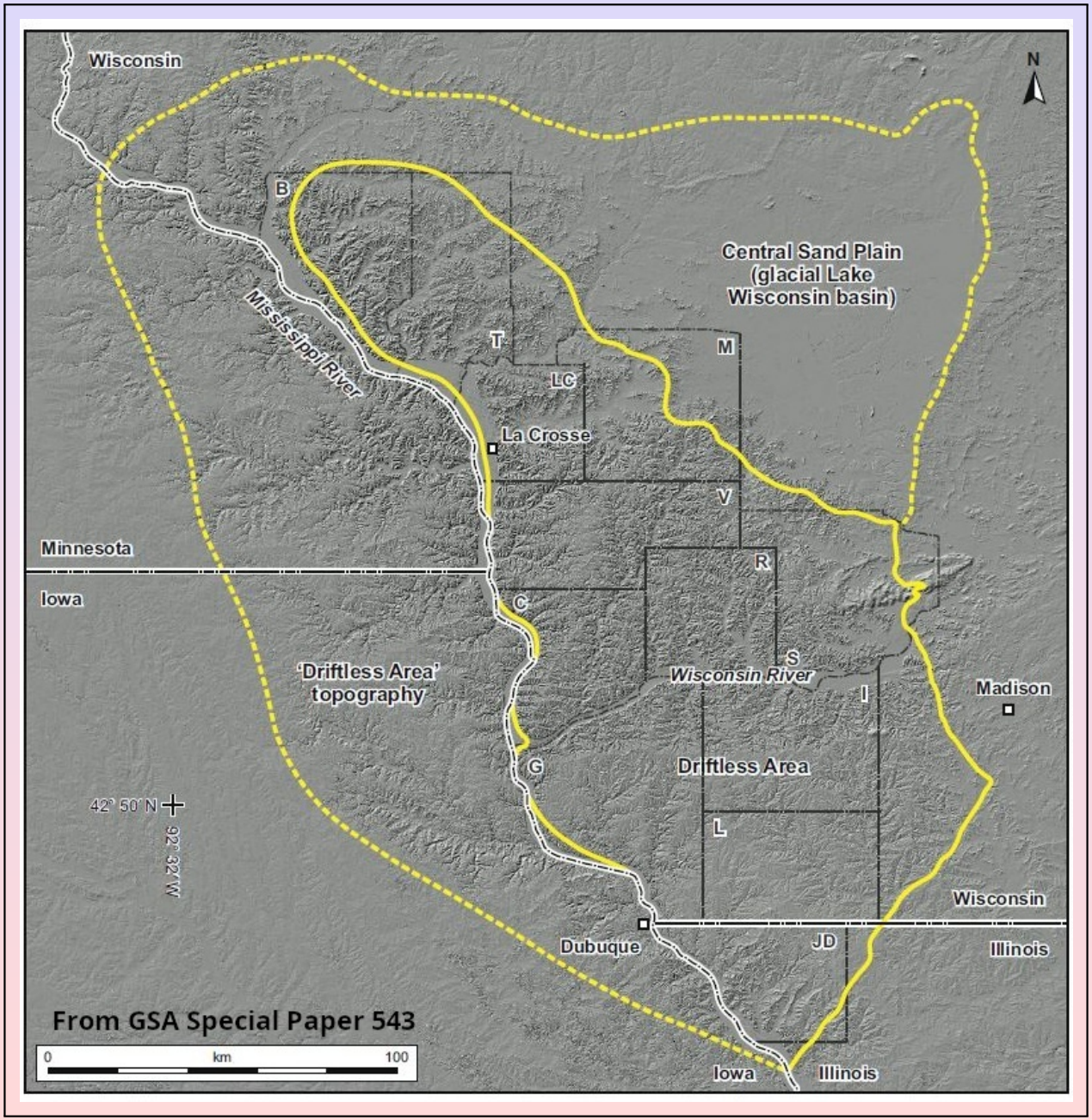


Setting: The Driftless Area

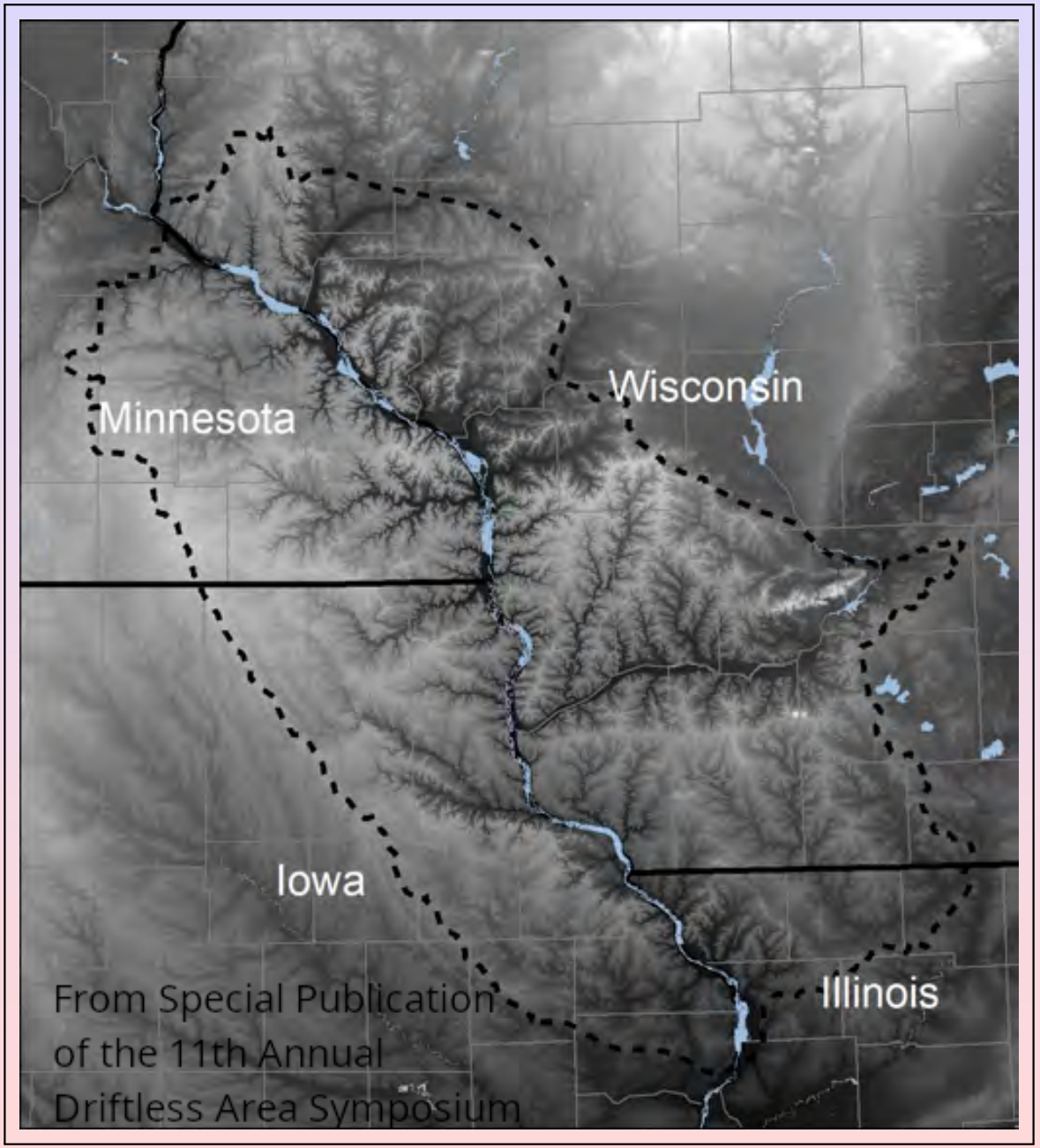
The Driftless Area



Or the Driftless Area



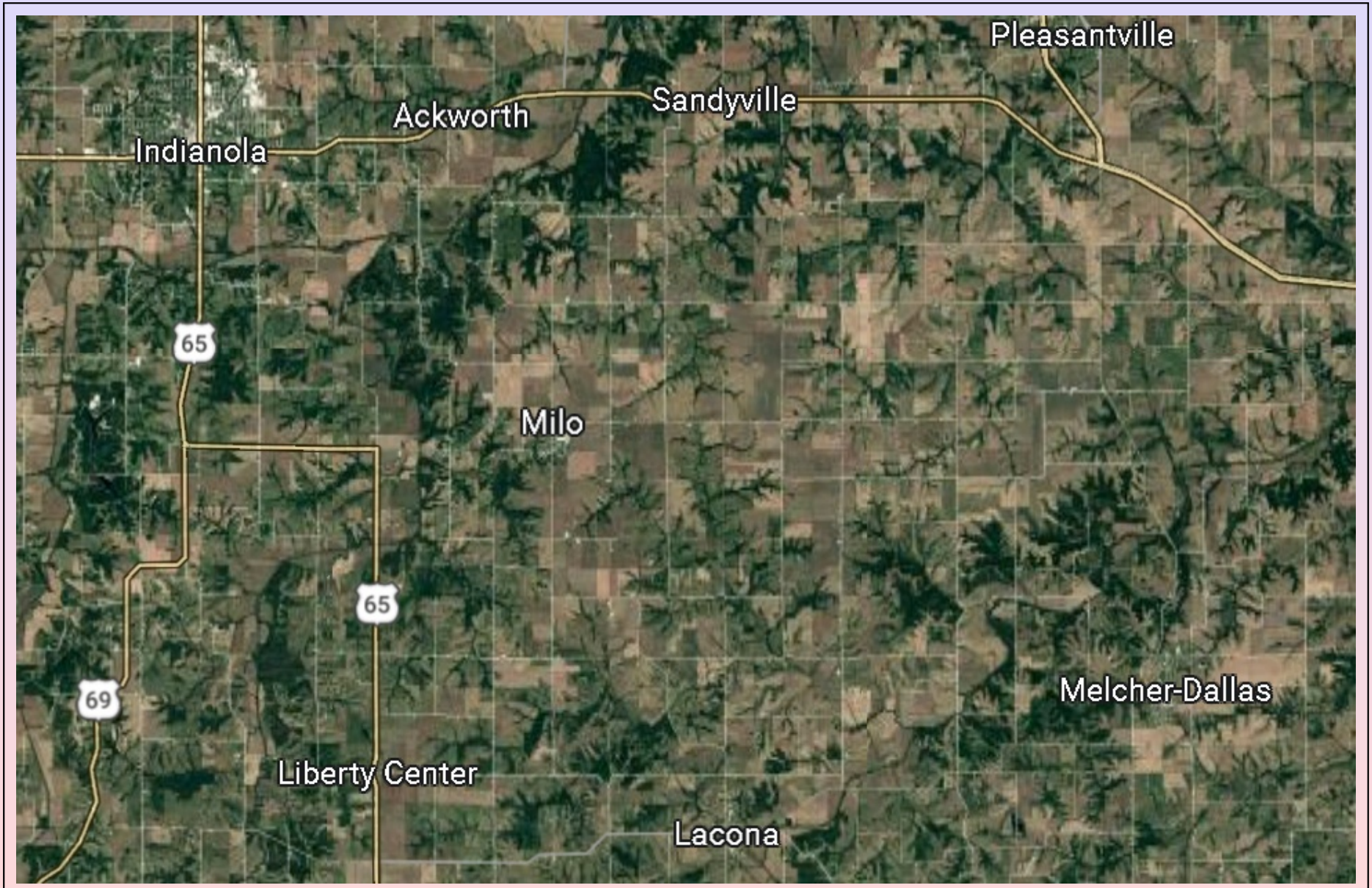
Here's what's important



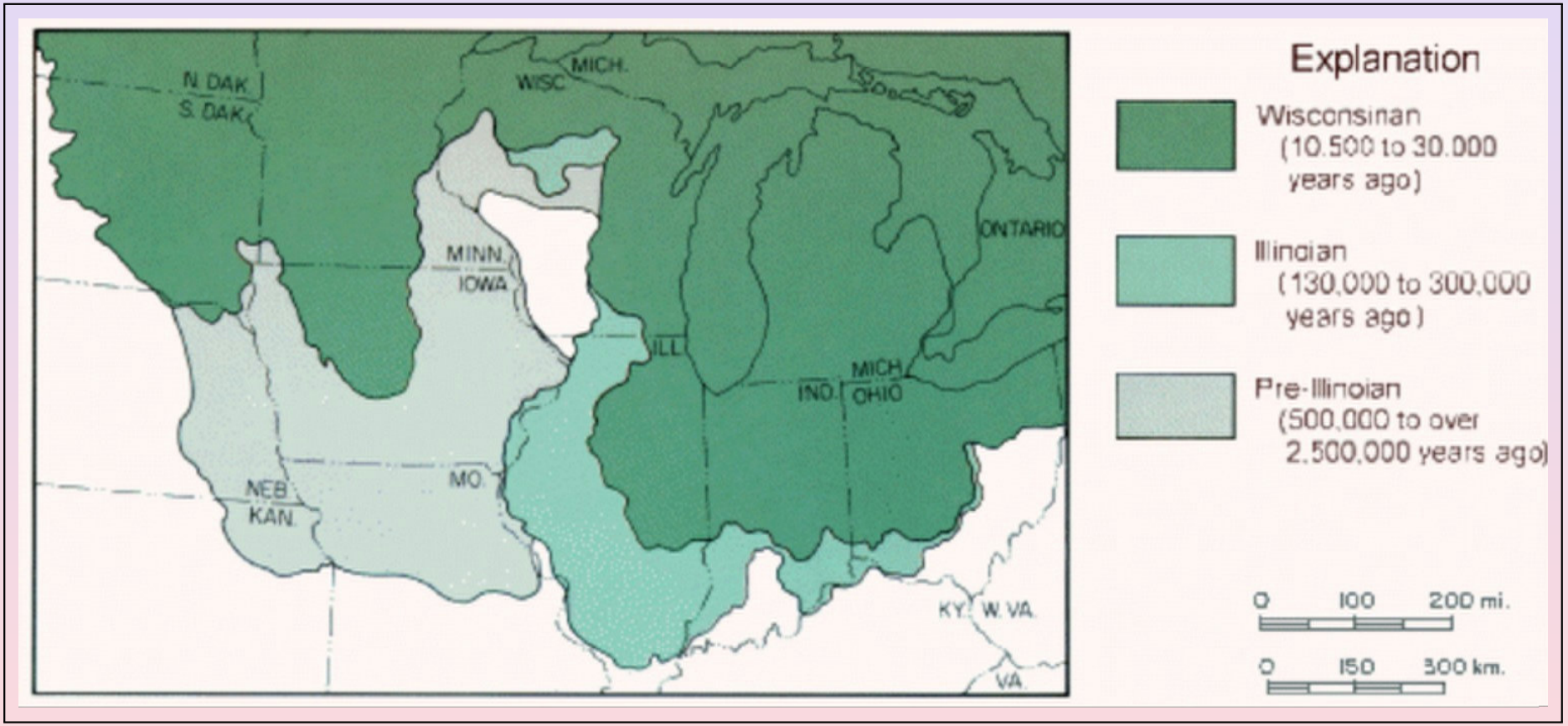
And here's one effect

Early conservation work

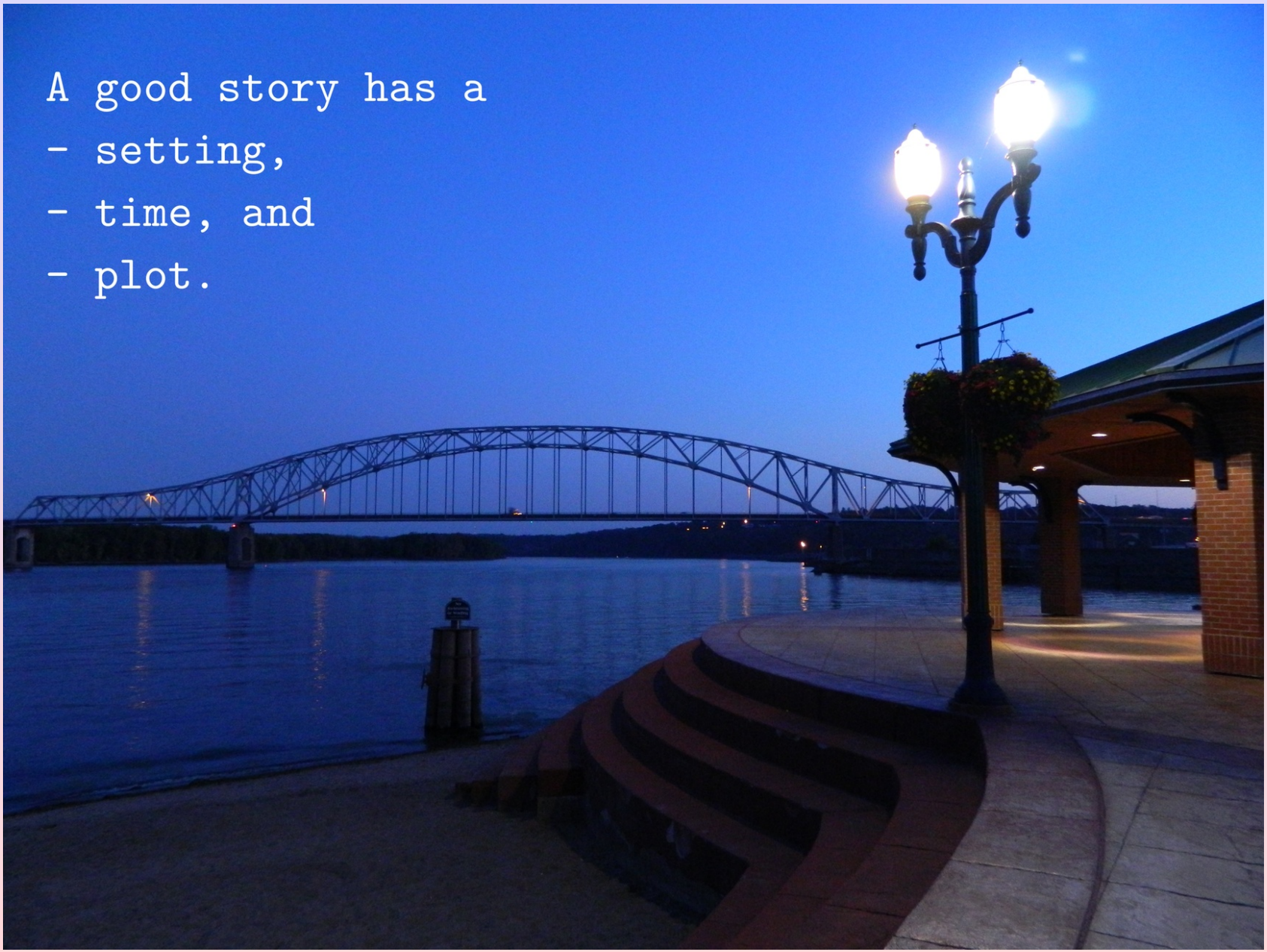
Straight lines



Pause: Your setting



Time: Very young and very old



When did all this happen?

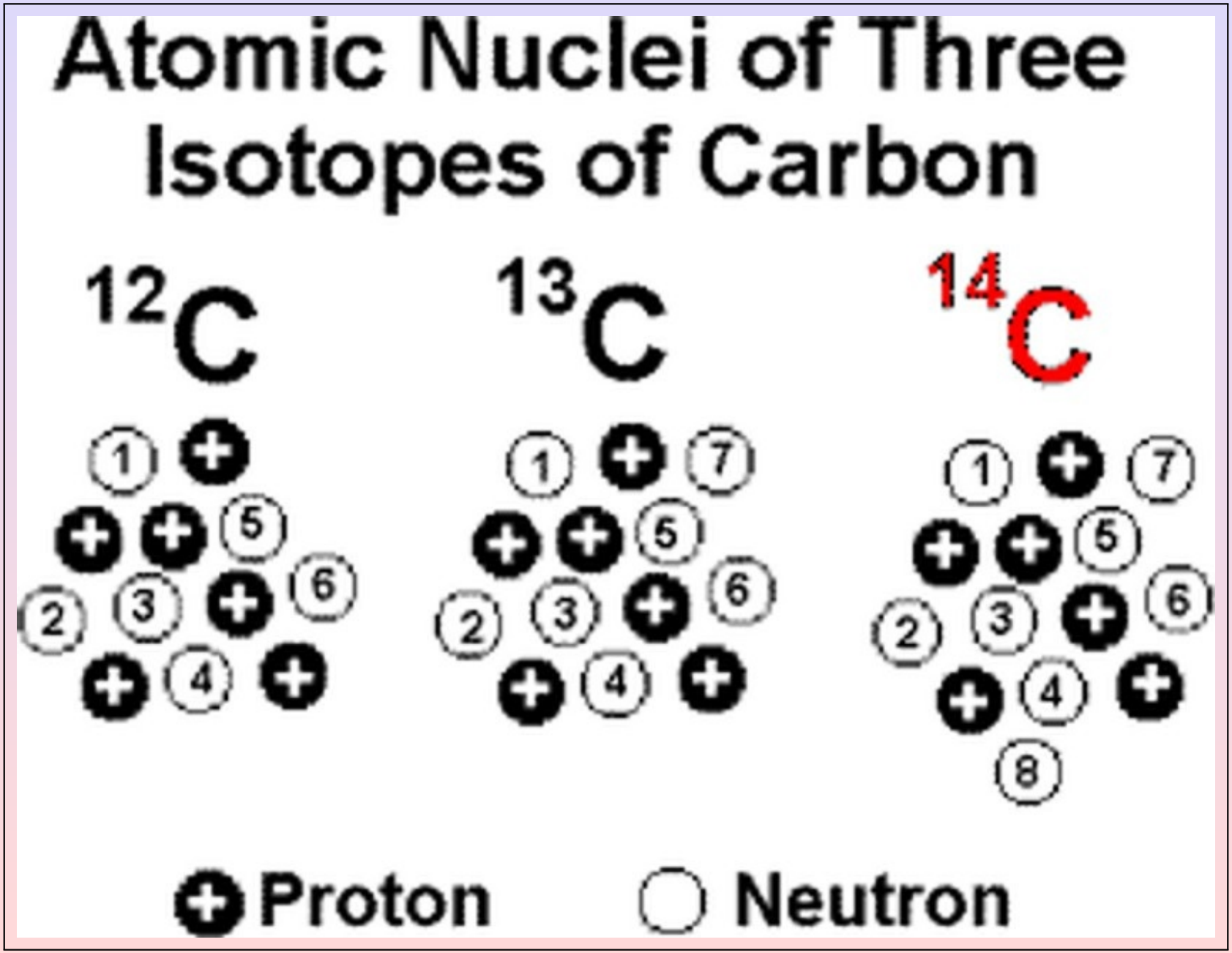
How we tell time: Relative time

How we tell time: Relative time

Nautiloid fossil at Graf, Iowa.

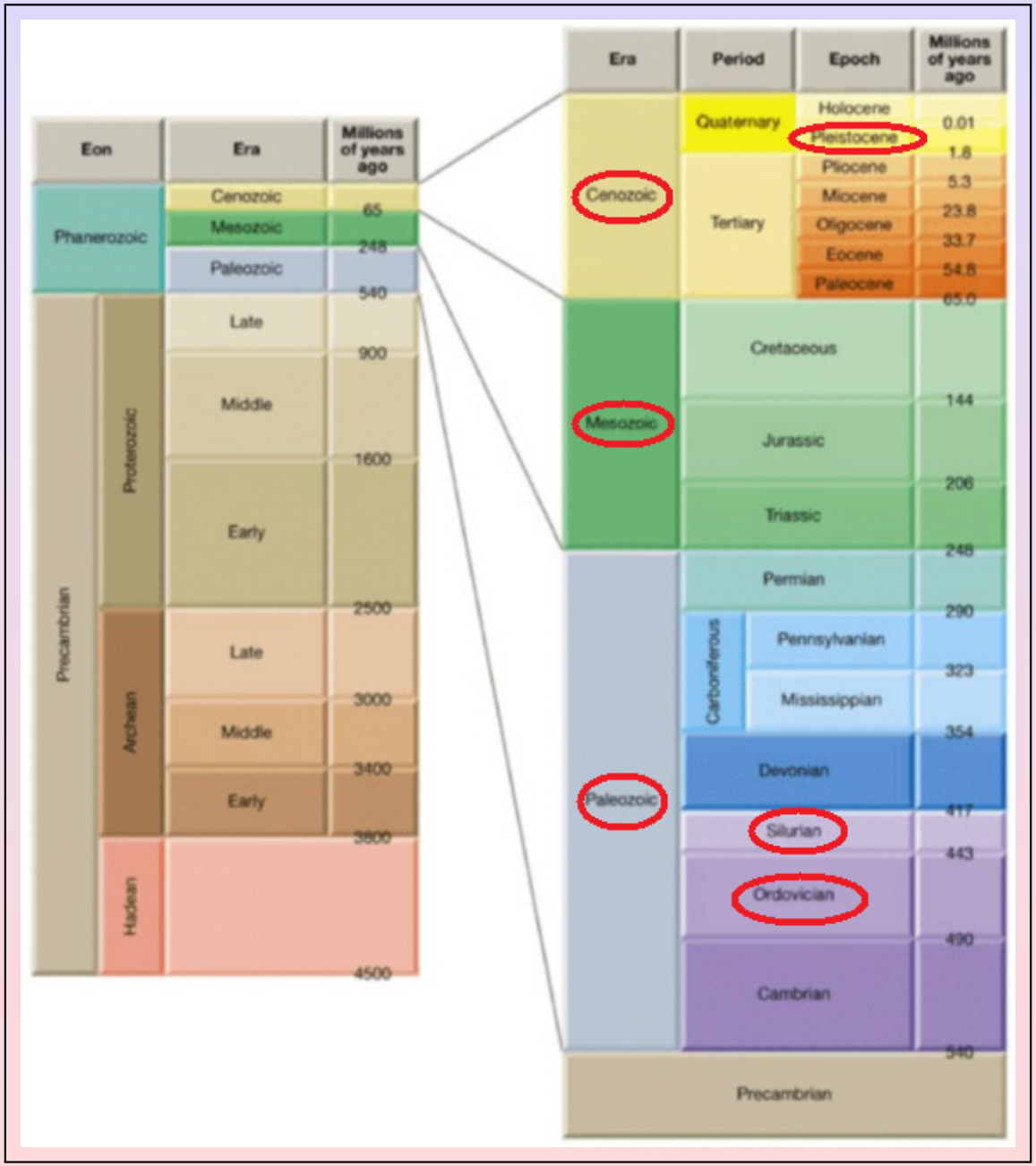
How we tell time: Absolute time

How we tell time: Absolute time

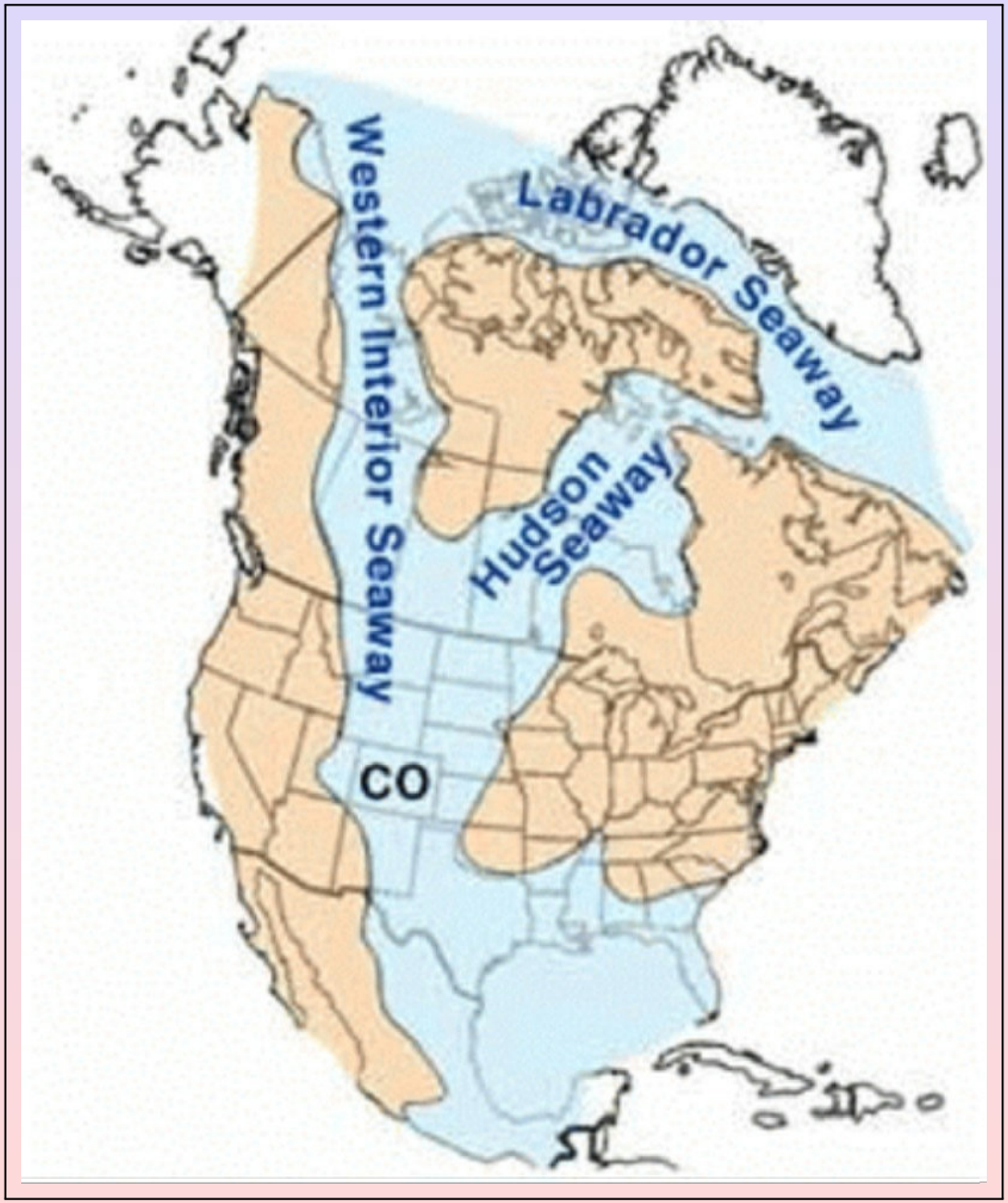


The geologic time scale

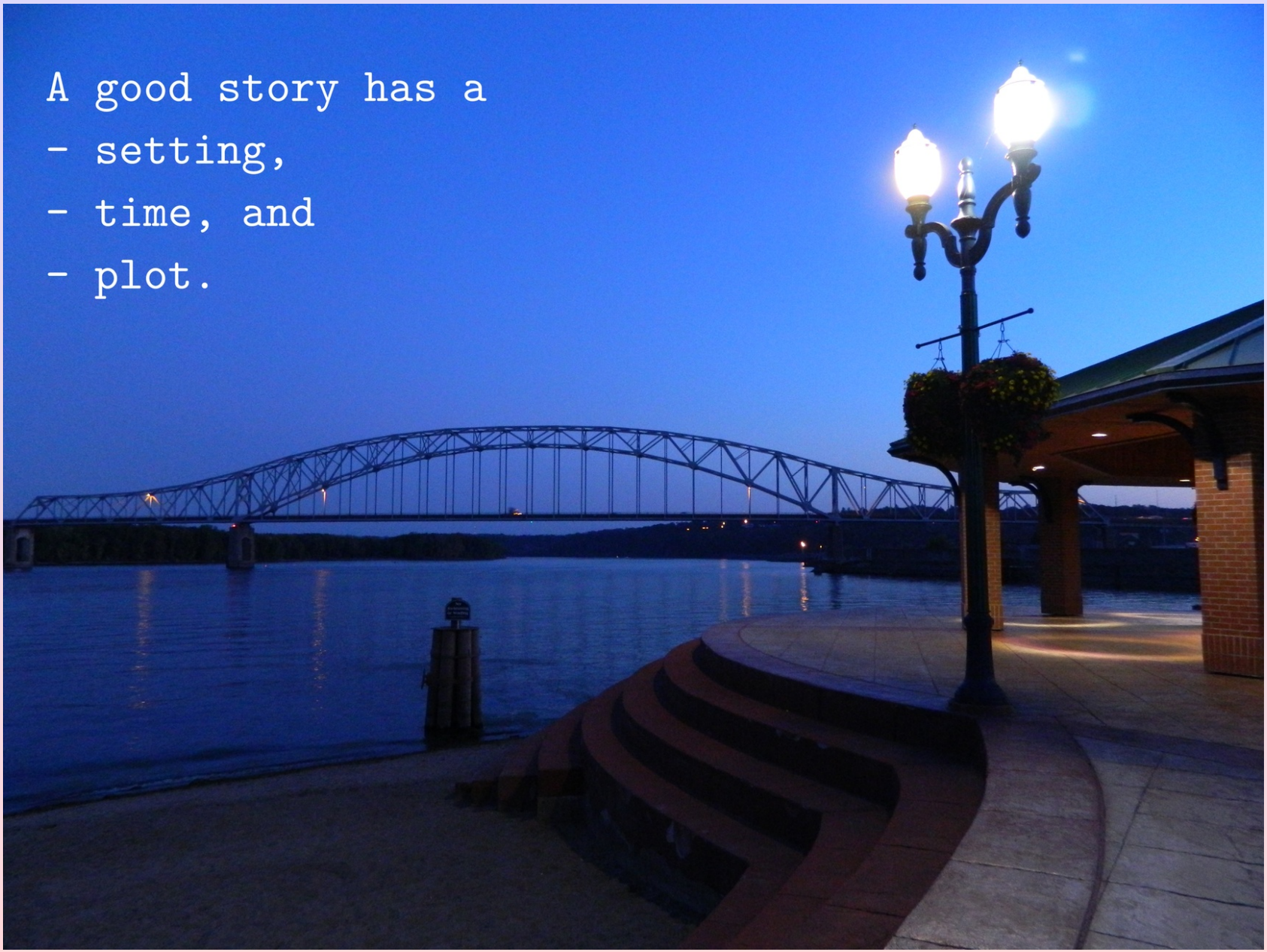
The times most important to us here



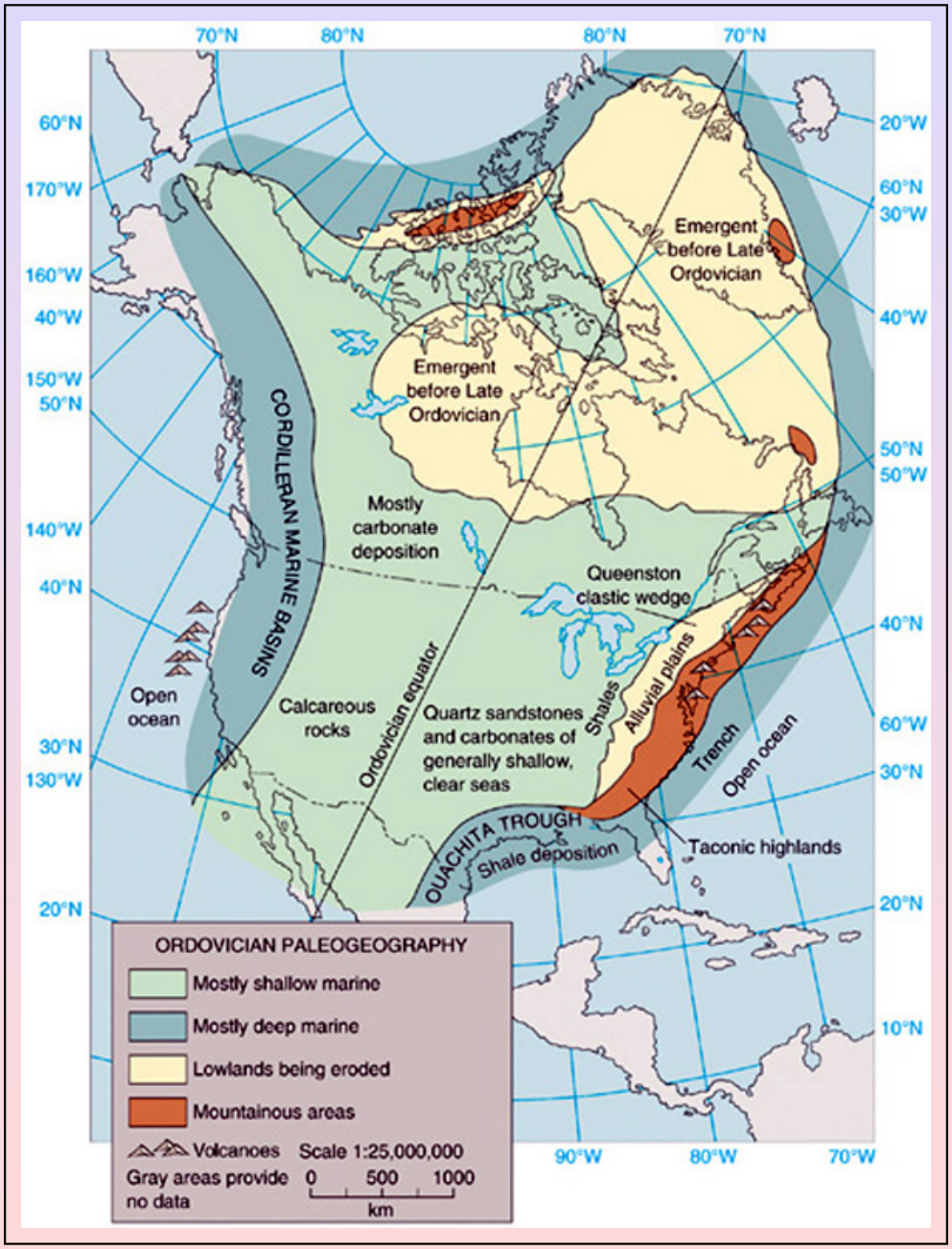
Pause: Your time



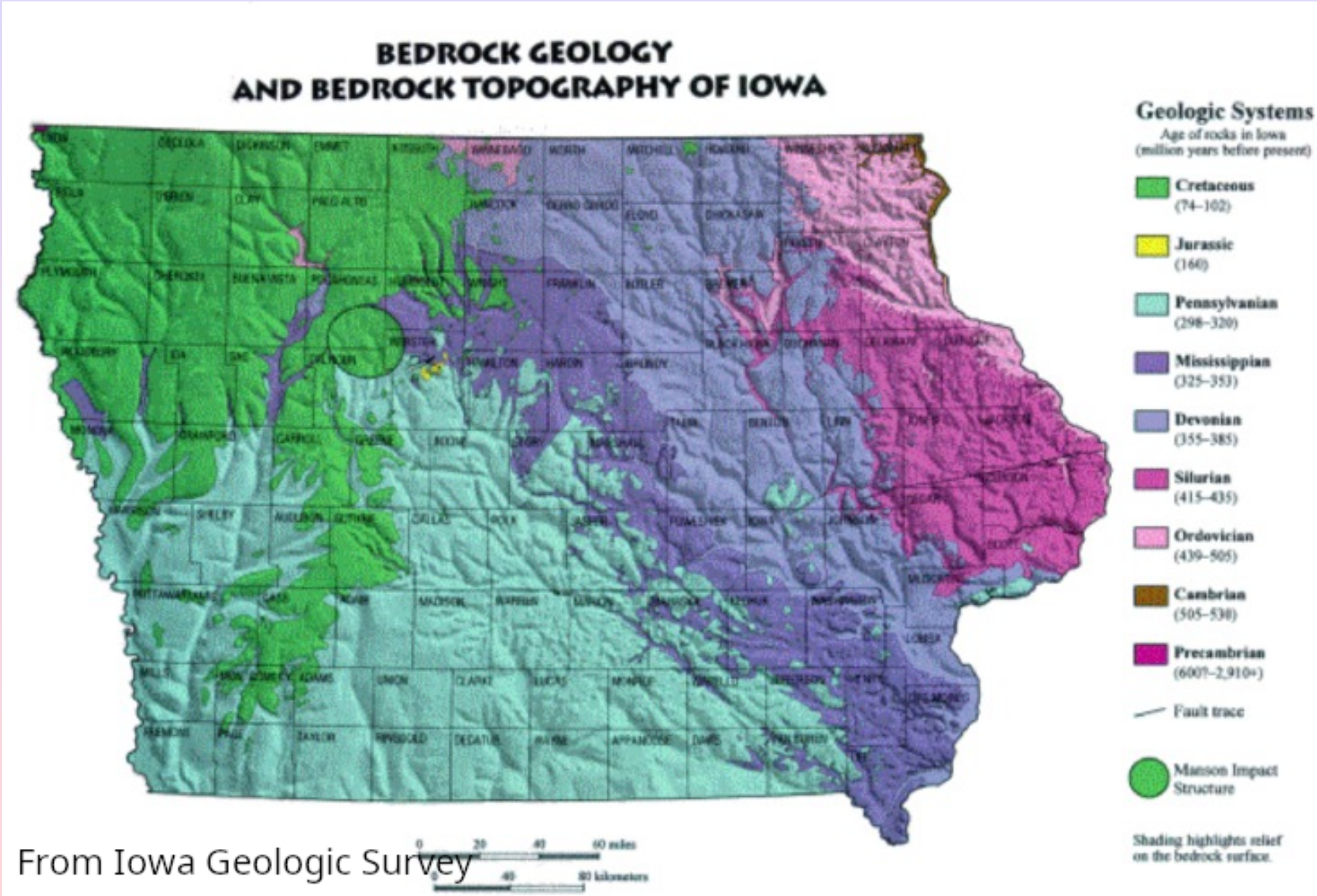
Plot: History shapes the landscape



Forming rocks from ancient seas



The sea recedes

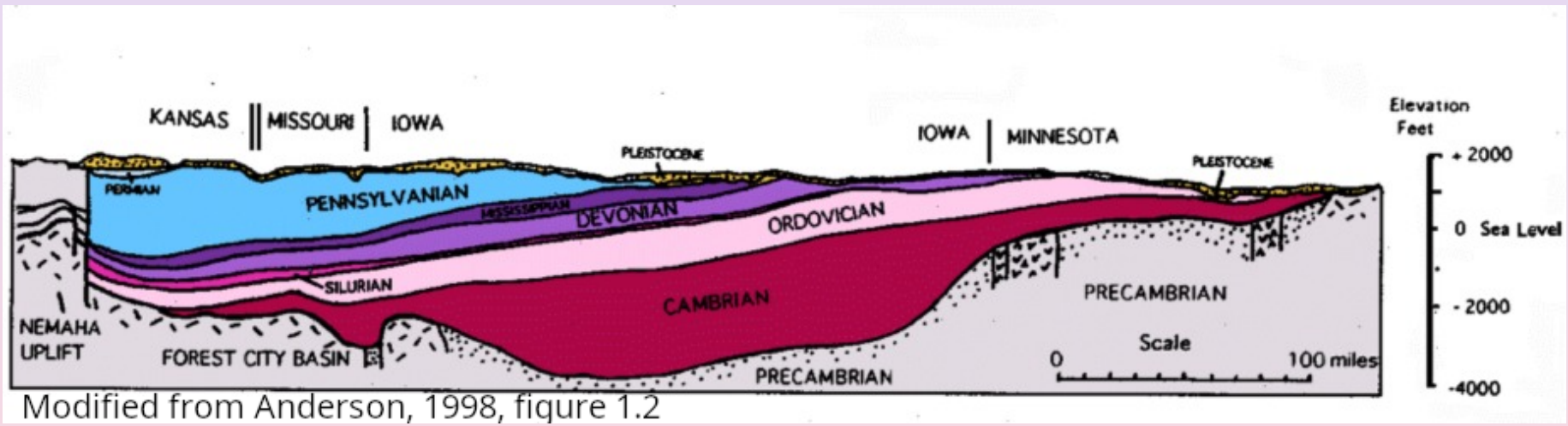


From Iowa Geologic Survey

Not much happening tectonically

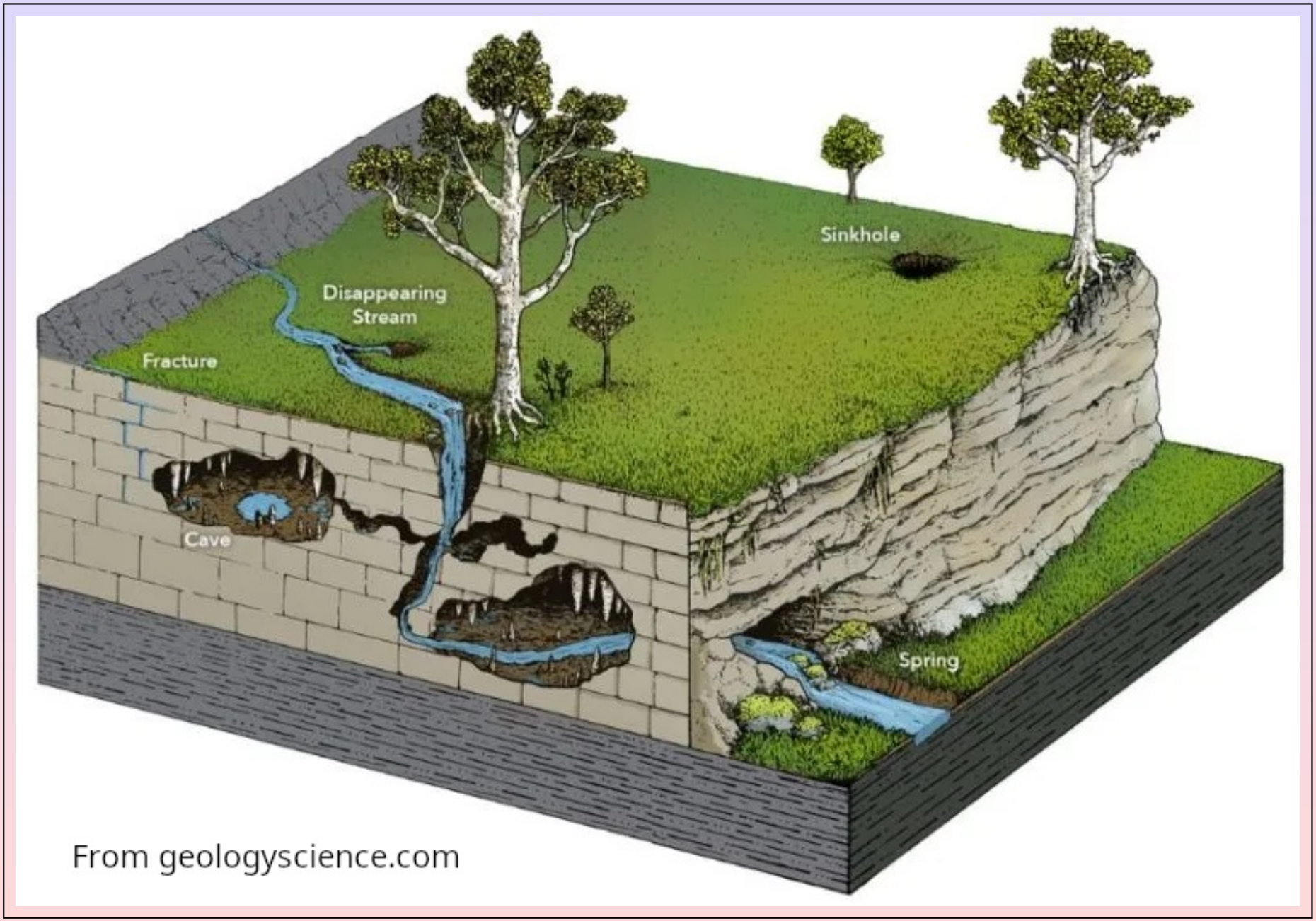
Then the glaciers!

A thin new skin



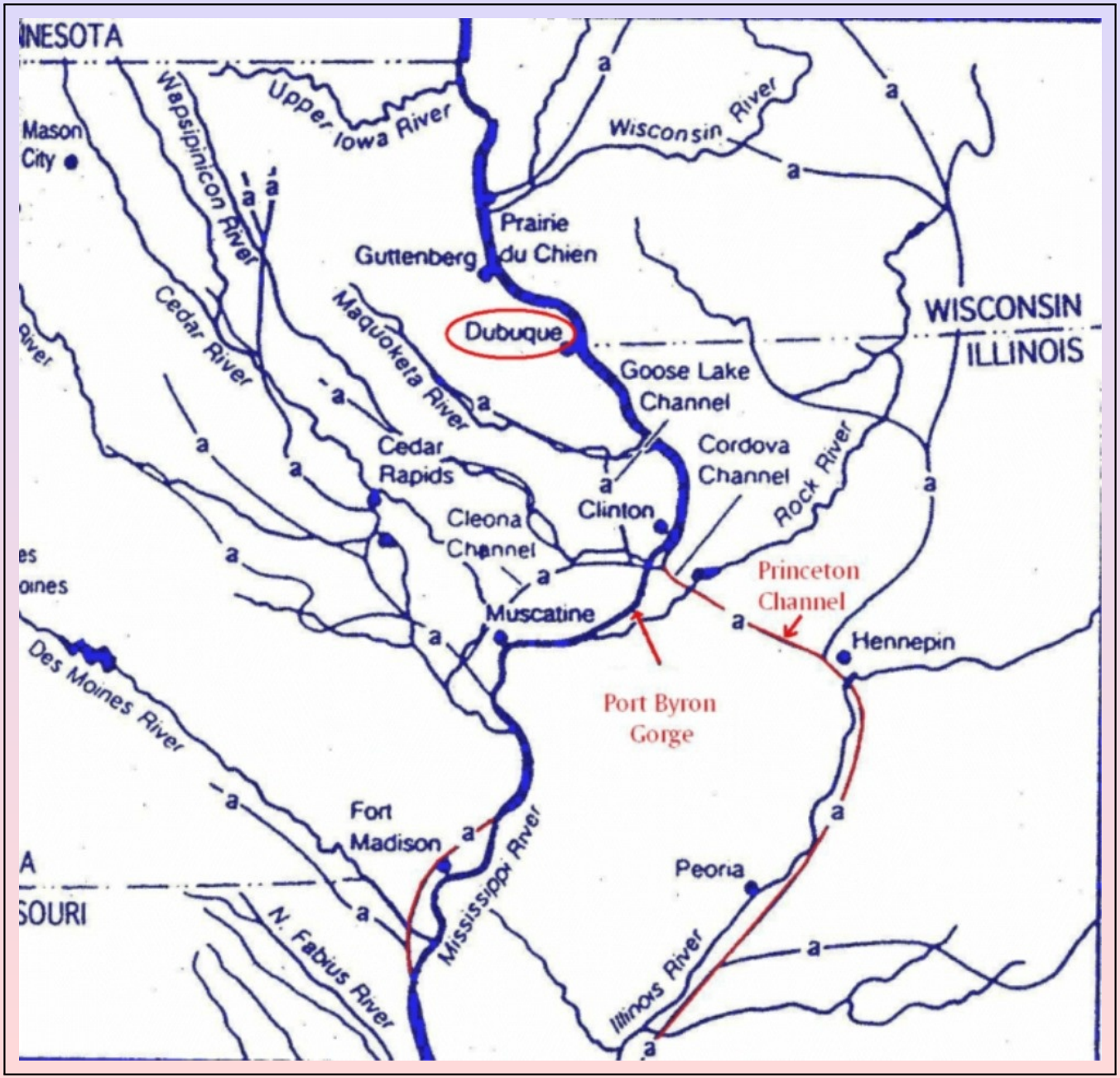
Modified from Anderson, 1998, figure 1.2

Karst develops: weathering of carbonates



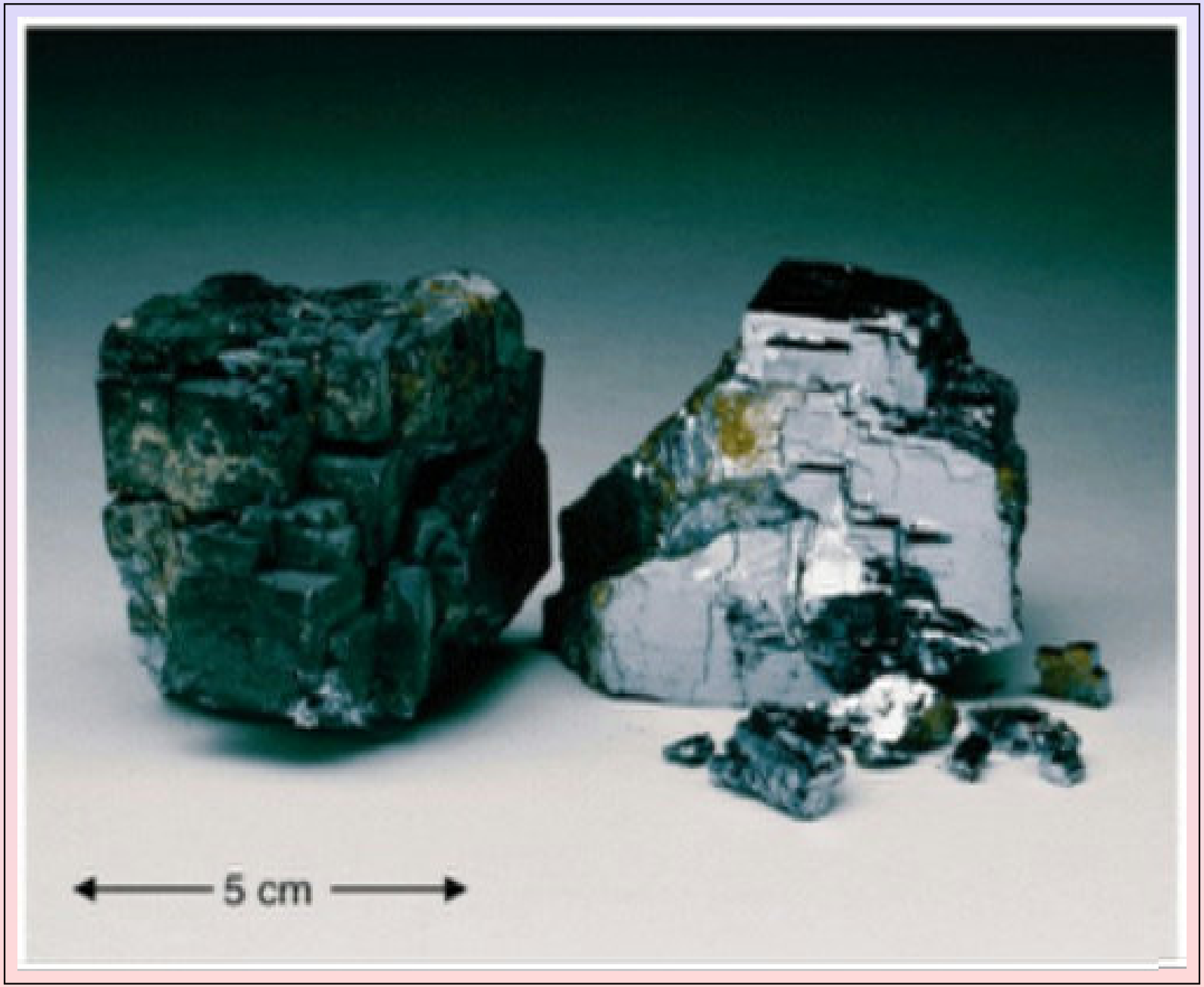
But not much here

Why no bluffs downstream?

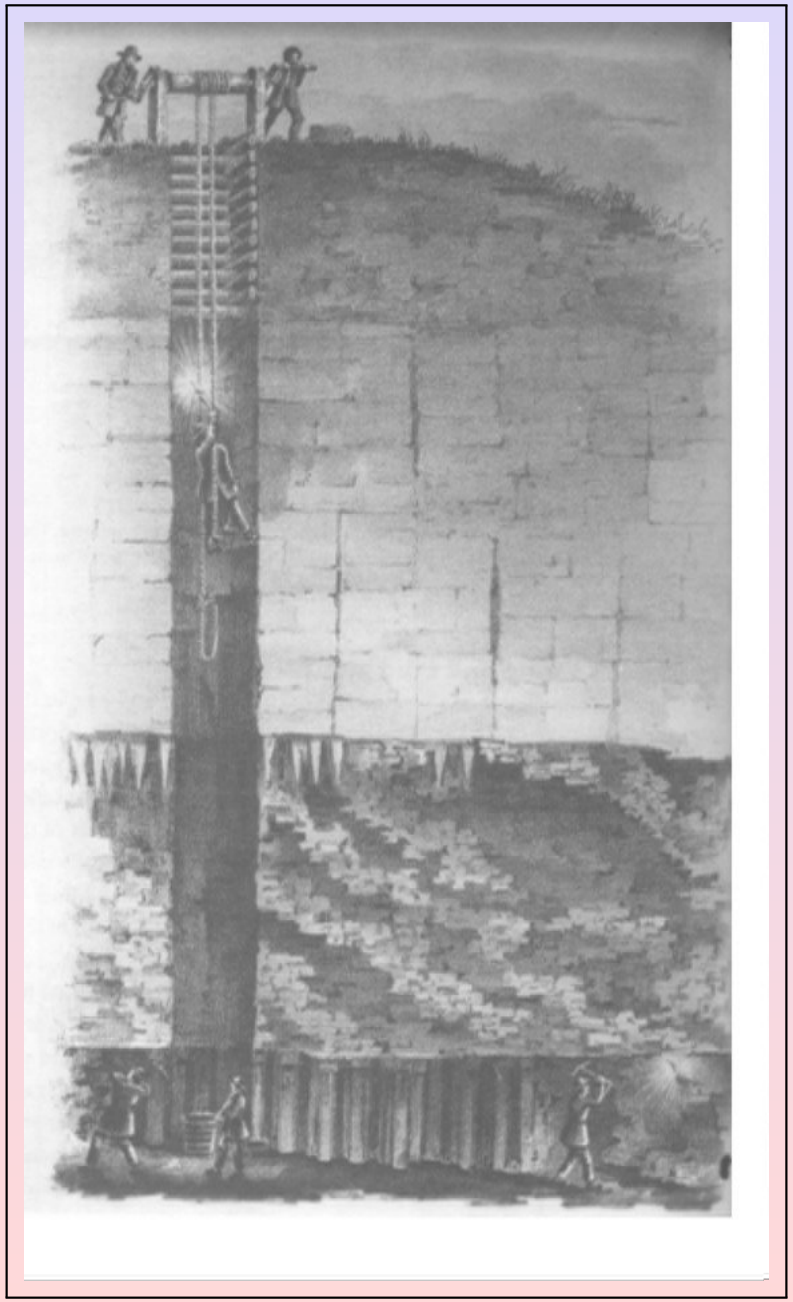


Ice in the fractures

Galena in the fractures, too



Julien Dubuque and the Europeans



Soil loss

Goat prairies!

CAFOs

Climate change: How we tell temperature

Pause: Your plot

Convinced that geology matters?