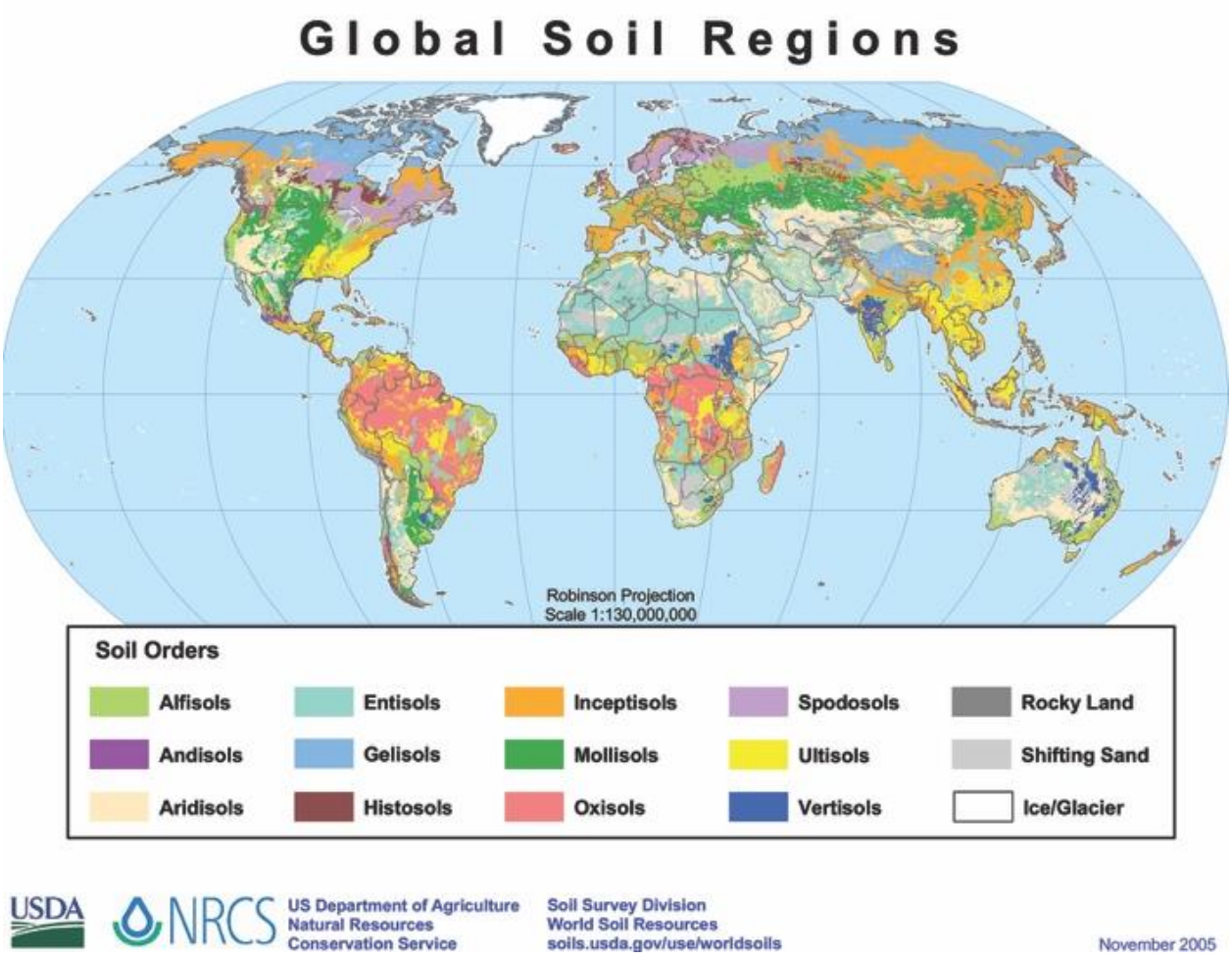
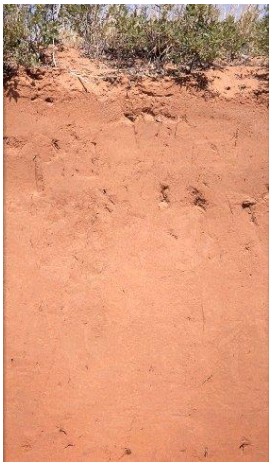


An Ode to Soil Orders

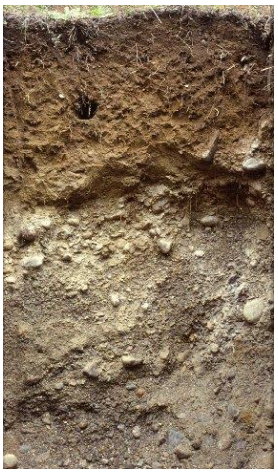
Pete Bier

It's about time you got down to hard-core learning
Cause I know you got some really good questions burning
About soil, which is affected by parent material and time
As well as climate, relief, and organisms like thyme.
We'll spend time talking about all 12 soil orders
That range far and wide across international borders.

We'll start with the youngest soil order out there
Which are Entisols, derived from recENT should you care.
They usually only have an A horizon, no E, C, or D.
They're also a very large group with great diversity.
You can find them on rocky hillsides or large river valleys.
Not preferred for crops, they can still put food in your galleys.



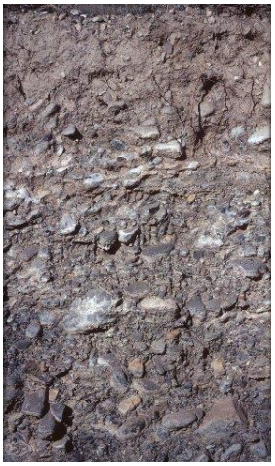
After a great deal of weathering, a new soil order have we.
The great Inceptisols is what this next soil order will be.
They have slight horizonation, surely more than the former.
And they can be found both in climates colder and warmer.
More people live on these, than any other order we'll name,
Its poor horizonation has its resistant parent material to blame.



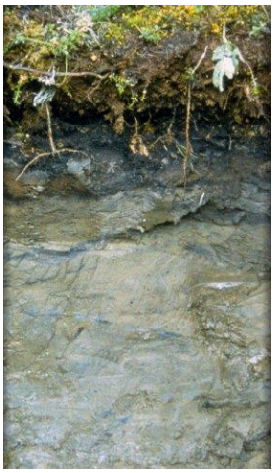
After many more years, another soil order does not tarry.
Next comes the great Mollisol, the soil order of the Prairie.
It might have an A, B, and C horizon, but usually no O.
It's also incredibly fertile, helping many plants to grow.
It has tremendous organic matter from dead plants of before,
And you'll drive right over them, they're halfway shore to shore.

We'll now take a break from this weathering schtick,
And talk about how climate affects how an order gets picked.

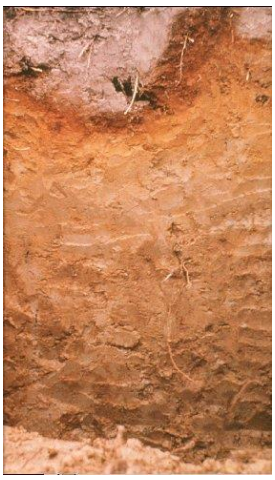
Aridisols are formed in places with no rain at all,
Regardless if its winter, spring, summer, or fall.
They can accumulate calcium carbonate and other such salts
But don't blame the soils, it's truly the climate's fault.
They can have a high pH, which means they are a base, not acid.
They're in the Western US, you won't find any in Lake Placid.



Let's look at temperate forming soils, not rain that is lacking.
The Gelisol can be found where you go Polar Bear tracking.
They must have permafrost at least 2 meters under your feet.
When it comes to sinking carbon, this soil cannot be beat.
And consider yourself lucky if you witness their cryoturbation.
But that won't happen until your next Arctic exploration.

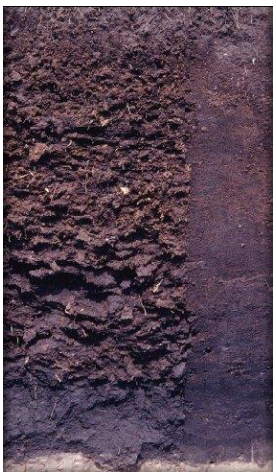


Spodosols are a product of climate to a certain extent,
But they absolutely must have a spodic subsurface content.
These horizons have black or red amorphous material.
And they have an E horizon, which is crazy looking, for real!
The climate affects these soils, by preventing decomposition.
Which limits inputs of new matter, as the old move down in position.



Now, there's another unique entity that can dictate order as well.
Soil order can depend heavily on its parent materiel.

A Histosol is an order with parent material needs.
Organic matter definitely must be this soil's seeds.
You need to have organic carbon at least 20 cm thick.
They're mucks, peats, and bogs. Your feet just might stick.
Most of these soils are saturated for the entire year,
And if you're in Madison, some are just north of here.



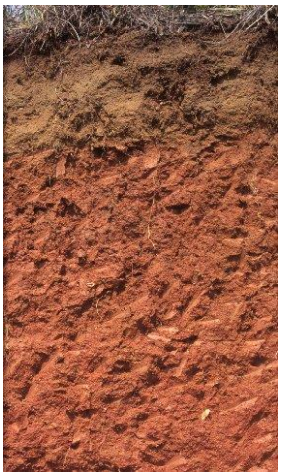
In this next case, volcanoes are this soil's driving factor,
And they have been known to do fairly well neath the tractor.
Andisols are formed from volcanic ash of very old.
They're in the Pacific, but also Iceland, which is cold.
They have a low color value, which is dark to the eye.
And their melanic horizon must be 30 cm high.

Finally, Vertisols is our last soil order of this group.
And believe me, this one will really throw you for a loop.
They're rich in shrink-swell clays, which get bigger and smaller.
Don't build a basement here, or you'll be destined for squalor.
They can be found down south, near Louisiana and Texas.
I hope after this explanation, Vertisols don't continue to vex us.

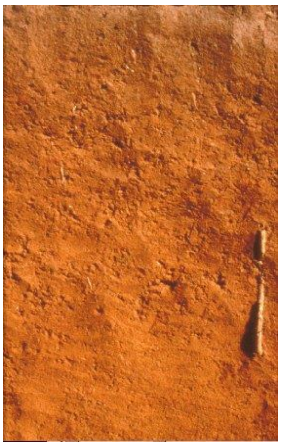
Now if climate or its parents don't dictate its formation,
Weathering once again resumes our soil fascination.

The prairie Mollisols will change after many a fortnight,
And trees will start to grow everywhere in your sight.
They'll give way to the Alfisol, an order to be respected.
High fertility and moderate leaching can be expected.
This soil is great for both Axe-man and farmer.
Antigo silt loam is our favorite. We will never harm her.

After many an eon, our soils can change once again.
They're common down south, where the Civil War did begin.
Ultisols are intensely weathered, with whole lots of clay.
And they're found in areas, where its humid all day.
Their cation exchange capacity is not usually the highest.
It's not my favorite soil order, but from Wisconsin, I'm biased.



Lastly we come to the splendid Oxisol.
This soil order is the most highly weathered of all.
Their oxide minerals tend to make them very red.
They have low fertility, but this soil isn't quite dead.
They don't hold on to nutrients, except for Phosphorus.
There's none in Wisconsin, which is lucky for us.



There you have it, you've learned about the orders, all twelve.
And into a book, you didn't even have to delve.
You know what they're made of, and how they might look.
You know if they're fertile and produce things you can cook.
You know where to find them, say, the Arctic or Madagascar.
You know, I think this poem is over, let's head to the bar.