HW week 1

Lecture 1:

We were introduced to soil and how important it is to the world as we know it, and learned about our professor. We learned about the four components of soil: air, organic matter, minerals, and water. We also learned about the 6 main functions of soil: it is a medium for plant growth, it is part of the recycling of nutrients and organic matter, it is a modifier of the atmostphere, it is a habitat for soil organisms, it is an engineering medium, and it is a key part of water supply and purification. Just to go a little bit more into the only two non-obvious functions, water supply and purification is in regards to soils role in allowing rivers and acting as a filter to ground water. Engineering medium is in regards to how it is the basis of buildings we construct.

Lecture 2:

Soil Profile is the vertical section of soil through all of it's horizons. The soil horizon is a layer of soil profile that differs in properties and characteristics from adjacent layers. Master Horizons are the biggest and most important of the types of horizons, they are: OAEBC. Top soil has O and A, O being organic matter and A being mineral soil high in organic matter. Sub soil has EB and C. E is a subsurface horizon light in color due to leaching and is the site of eluviation processes. B is clay accumulation and the site of illuviation processes. C is substratum and is the deepest of all the soil horizons. As a note, soil may have anywhere between 1 and 5 master horizons. Older soils usually have more distinct horizons. Sometimes plants and animals stir the soil through "bioturbation" and ruin the layers. 3 key ideas: soil is alive, it is 4 dimensional, and it is self-organizing.

Lecture 3:

Talked about soil color and soil structure. Soil structure labeling involves grade, size and type. Afterwards, we talked about the upcoming projects and met with group members.