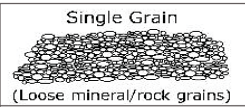

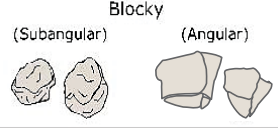
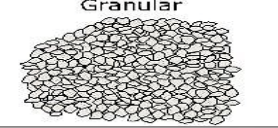
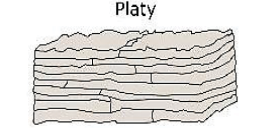
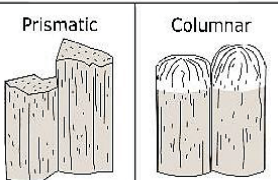


Type	Kind	Class	Size (mm)
Structureless: no observable aggregation or no definite orderly arrangement around natural lines of weakness.	A. <u>Single grain structure:</u> incoherent mass of individual particles as in sand.		
	B. <u>Amorphous</u> (massive) structure: a coherent mass showing no evidence of any distinct arrangement of soil particles.		
Blocklike: soil particles are arranged around a point & bounded by a flat or rounded surfaces.	A. <u>Blocky</u> (angular blocky): rectangular & flattened, vertices sharply angular.	Fine blocky Medium blocky Coarse blocky V.C. blocky	< 10 10-20 20-50 > 50
	B. <u>Subangular blocky:</u> faces subrectangular, vertices mostly oblique, or sub-rounded.	Fine subangular blocky Med subangular blocky C subangular blocky V.C. subangular blocky	< 10 10-20 20-50 > 50
	C. <u>Granular:</u> spheroidal and characterized by rounded vertices.	Fine granular Medium granular Coarse granular	< 2 2-5 5-10
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces.	A. <u>Platy structure:</u> horizontal planes more or less developed.	Fine platy Medium platy Coarse platy	< 2f 2-5 > 5
	Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces.	A. <u>Prismatic structure:</u> vertical faces well defined and edges sharp.	Fine Prismatic Medium prismatic Coarse prismatic Very coarse prismatic
	B. <u>Columnar structure:</u> vertical edges near top of columns are not sharp. May be flat, round or irregular topped.	Fine columnar Medium columnar Coarse columnar Very coarse columnar	< 20§ 20-50 50-100 > 100

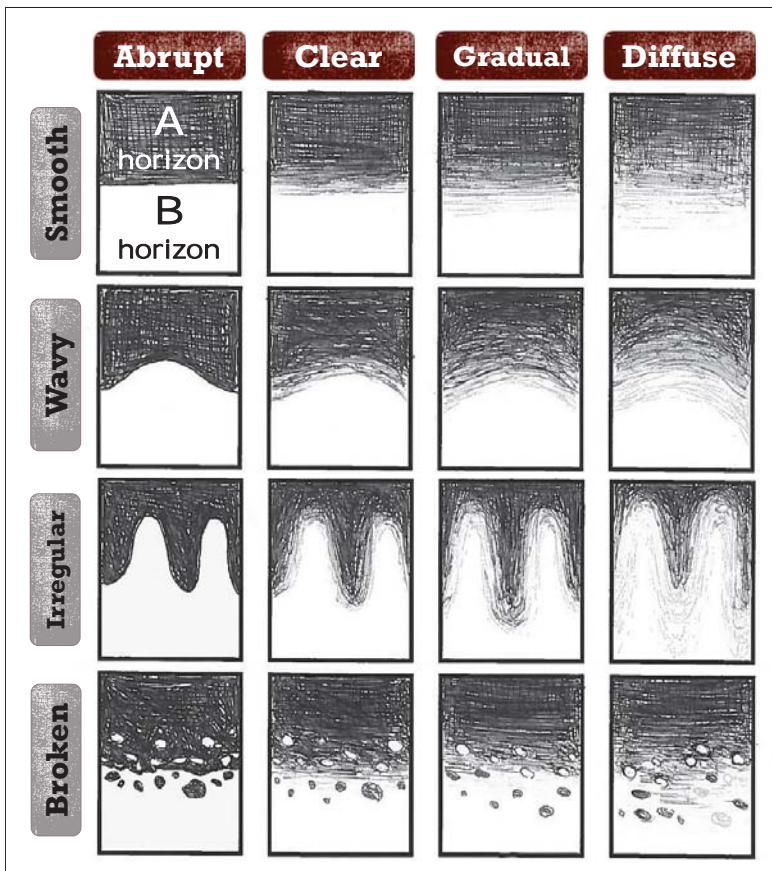
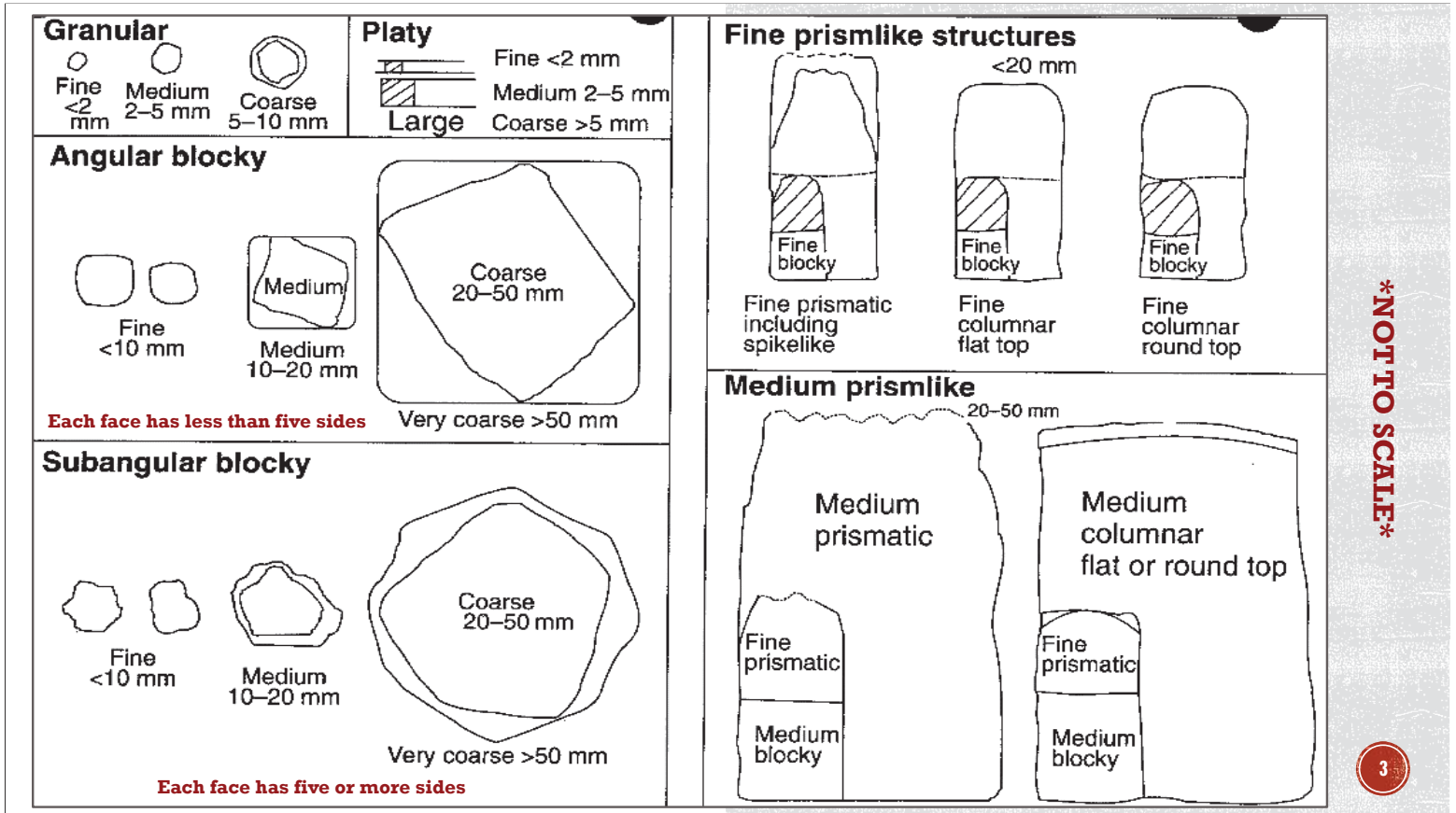
SOIL STRUCTURE

- **Type:**
 - Most basic structural form of soil
- **Kind:**
 - More specific shape of peds (i.e., soil aggregates)
- **Class:**
 - Size ranges of peds
- **Soil Grade:**
 - Describes the ease with which soil peds break apart
 - **cannot be applied to structureless types**
 - **Grades:** weak, moderate & strong

Type	Kind	Examples
Structureless: no observable aggregation or no definite orderly arrangement around natural lines of weakness.	A. <u>Single grain structure:</u> incoherent mass of individual particles as in sand.	 <p>Single Grain (Loose mineral/rock grains)</p>
	B. <u>Amorphous</u> (massive) structure: a coherent mass showing no evidence of any distinct arrangement of soil particles.	 <p>Massive (Continuous, unconsolidated mass)</p>
Blocklike: soil particles are arranged around a point & bounded by a flat or rounded surfaces.	A. <u>Blocky</u> (angular blocky): rectangular & flattened, vertices sharply angular.	 <p>Blocky (Subangular) (Angular)</p>
	B. <u>Subangular blocky:</u> faces subrectangular, vertices mostly oblique, or sub-rounded.	
	C. <u>Granular:</u> spheroidal and characterized by rounded vertices.	 <p>Granular</p>
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces.	A. <u>Platy structure:</u> horizontal planes more or less developed.	 <p>Platy</p>
	Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces.	 <p>Prismatic Columnar</p>

SOIL STRUCTURE

- **Type:**
 - Most basic structural form of soil
- **Kind:**
 - More specific shape of peds (i.e., soil aggregates)
- **Class:**
 - Size ranges of peds
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 - Describes the ease with which soil peds break apart
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HORIZON BOUNDARY

Distinctness:

- 1: Abrupt (<2 cm deep)
- 2: Clear (2-5 cm deep)
- 3: Gradual (5-15 cm deep)
- 4: Diffuse (>15 cm deep)

Form:

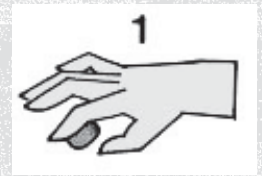
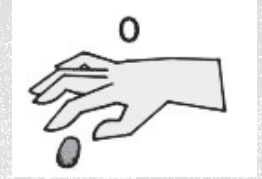
- 1: Smooth (nearly a plane)
- 2: Wavy (pockets wider than deep)
- 3: Irregular (pockets deeper than wide)
- 4: Broken (discontinuous)



SOIL CONSISTENCE

▪ **Soil consistence** is the measure of the strength or *stickiness* of the soil aggregates

- 0 = non-sticky
- 1 = slightly sticky
- 2 = sticky
- 3 = very sticky



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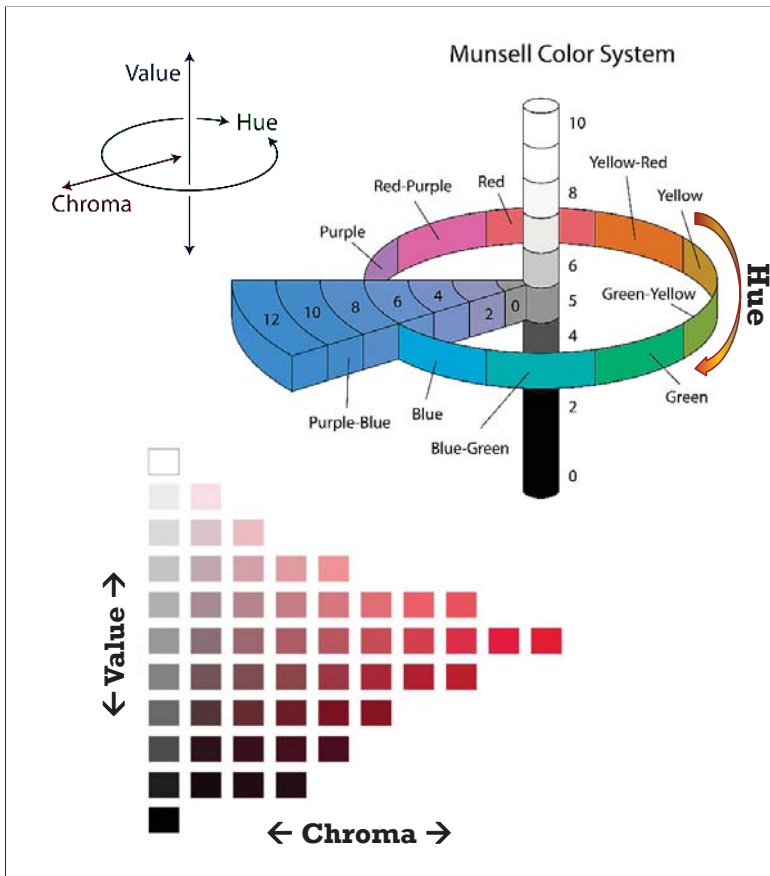
SOIL PLASTICITY

▪ **Soil plasticity** is the measure of the pliability of the soil aggregates (plasticity is the property of changing shape continuously under applied stress)

- **Non-plastic:** 4 mm thick, 4 cm long roll cannot be formed
- **Slightly Plastic:** 4 mm thick, 4 cm long roll can be formed but cannot support its weight
- **Moderately Plastic:** 2 mm thick, 4 cm long roll can be formed but cannot support its weight
- **Very Plastic:** 2 mm thick, 4 cm long roll can be formed and support its weight



NOT TO SCALE



SOIL COLOR

- **Hue:** dominant spectral color
- **Value:** degree of lightness
- **Chroma:** richness of color; amount of a particular hue added to a gray

