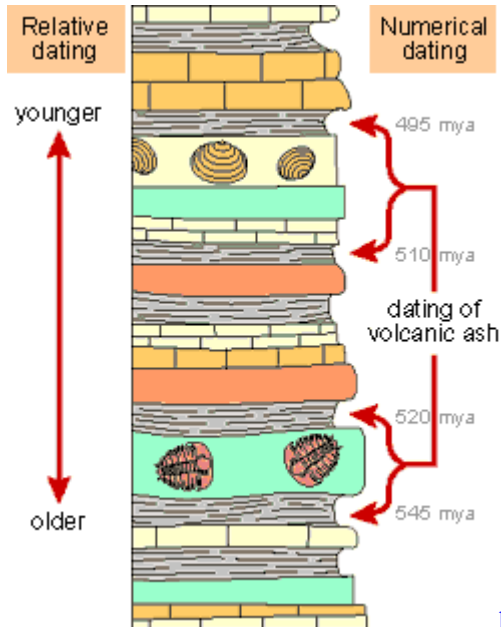


G203 Notes 4/21/10 Geological Time
Amanda Maxwell

Relative Ages: is related to other data, geologic term.

Absolute Ages or (Numerical): is a range, number associated with the data.



http://evolution.berkeley.edu/evosite/lines/images/strat_column.gif

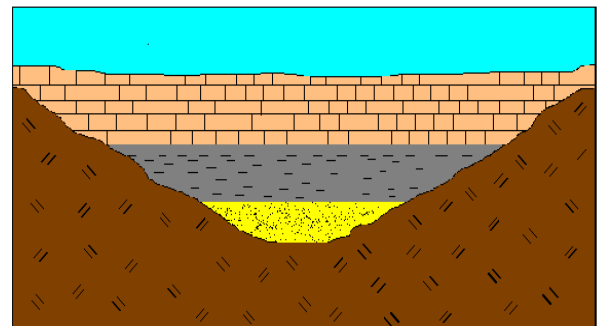
Six Fundamental Principles:

1). Superposition- Undisturbed sequences of sedimentary layers are deposited with the oldest on the bottom and the youngest on the top.



<http://upload.wikimedia.org/wikipedia/en/thumb/a/a9/MakhteshGadolSection2007.JPG/256px-MakhteshGadolSection2007.JPG>

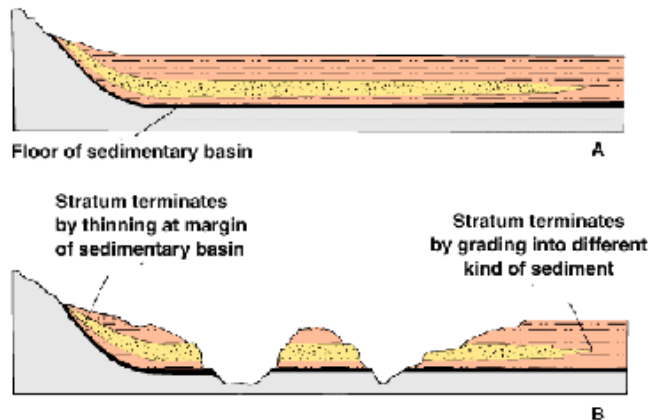
2). Original Horizontality- Sediment is originally deposited as flat layer.



Original Horizontal Strata

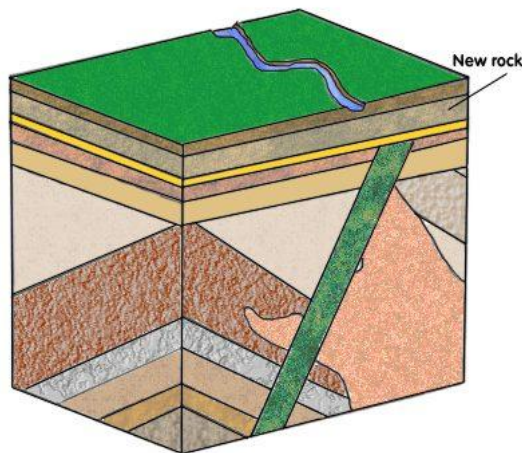
<http://www.library.csi.cuny.edu/dept/as/strat/Image21.gif>

3). Lateral Continuity- Sedimentary rocks extend sideways in all directions until it thins o or pinches out.



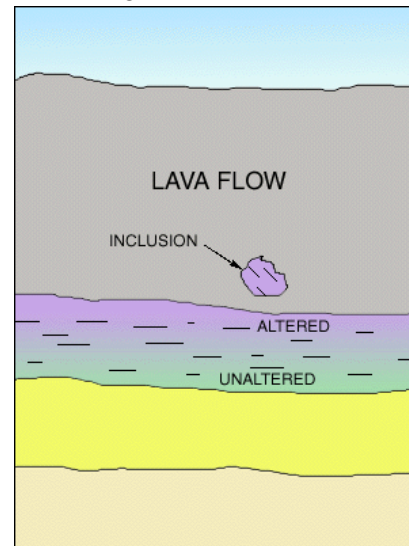
http://www3.interscience.wiley.com:8100/legacy/college/lewin/0470000201/chap_tutorial/ch01/images/le01_04.gif

4). Cross Cutting- an Igneous **Intrusion** or fault must be younger than the rocks it intrudes.



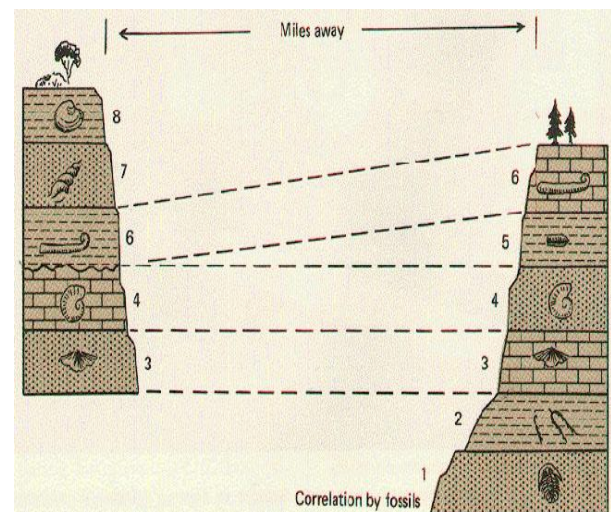
<http://www.geologyrocks.co.uk/system/files/u2/image8.jpg>

5). Inclusion- an **Inclusion** is older than the rock containing them.



http://academic.brooklyn.cuny.edu/geology/leveson/core/topics/rocks/field_relationships/graphics/replace4.gif

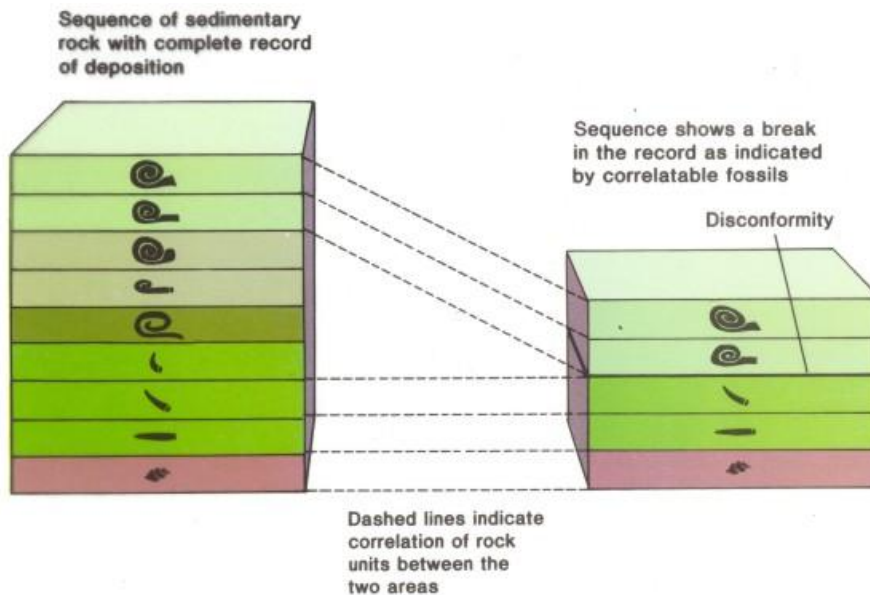
6). Fossil Succession- Sedimentary rock contain fossilized flora and fauna and these fossils succeed each other vertically in a specific, reliable order that can be identified over wide horizontal distance.



<http://www.uvm.edu/perkins/evolution/ganda/time/faunal succession.jpg>

Hiatus- an interval of time for which there is no rock record in a column of rocks.

The boundary layer between two rock units that represents a hiatus is called an unconformity.



68 Disconformity
Figure 15.31

Runway, Charles C., and David McGarry, Physical Geology, 6th Edition, 1998, McGraw-Hill, Inc. All Rights Reserved.

<http://web.arc.losrios.edu/~borougt/GeologicDating/Unconformities.jpg>

Non-Conformity-There are sedimentary rocks on top of either Plutonic igneous or metamorphic rocks.

Angular Unconformity- The rock layers above and below are **not** parallel to one another and are made out of sedimentary rocks.

http://science.jrank.org/article_images/science.jrank.org/unconformity.1.jpg

Disconformity-Sedimentary rocks layers above and below are both parallel.

