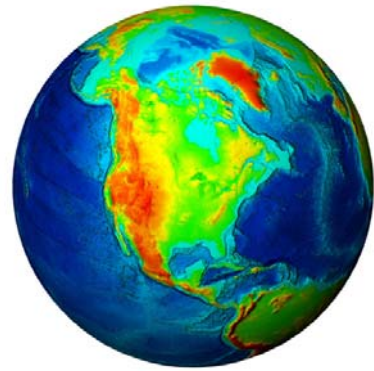


# Geol 341-342 Introduction



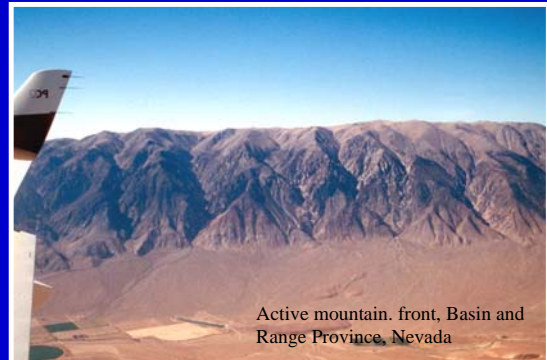
How do we explain the major features of the Earth?

## Why are there mountains?



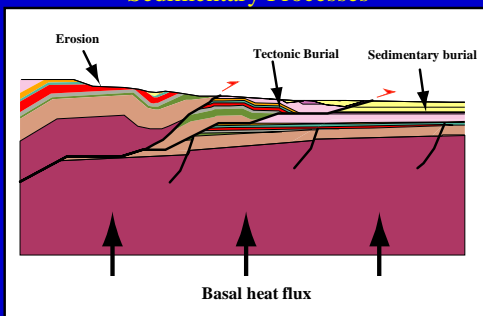
Matterhorn, Swiss Alps

## How do faults relate to earthquakes

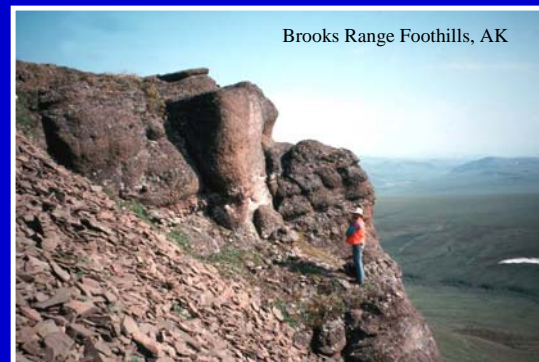


Active mountain front, Basin and Range Province, Nevada

## Interaction between Structural and Sedimentary Processes

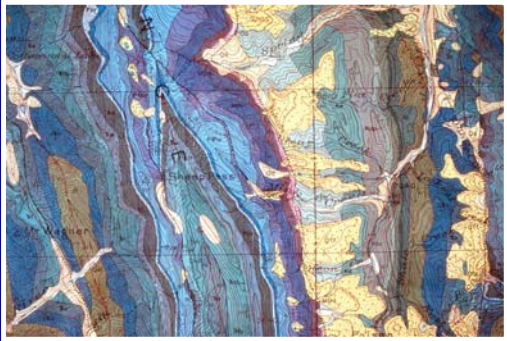


## It all started with field observations



Brooks Range Foothills, AK

A basic tool: the geologic map



A structural cross section:  
Determine deep structure from  
surface data



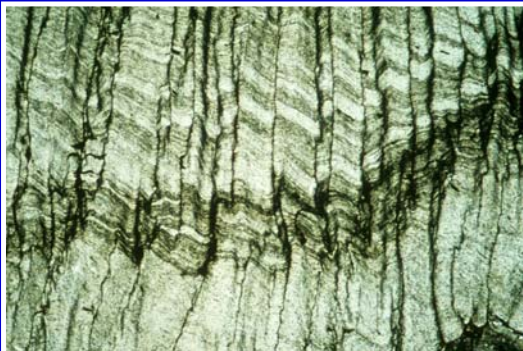
Study  
structures at  
all scales

How can solid rock flow like taffy?

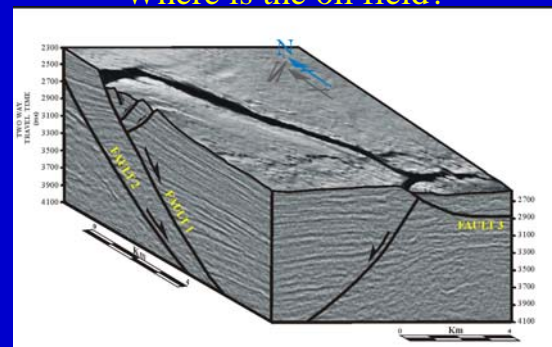


Morcles Nappe, Swiss Alps

Microscopic view: How strain is  
accomplished



Practical applications of Structure  
Where is the oil field?



What happens to the stress field when you make a well, or a mine



Fracture systems and their role in fluid flow or mine stability

