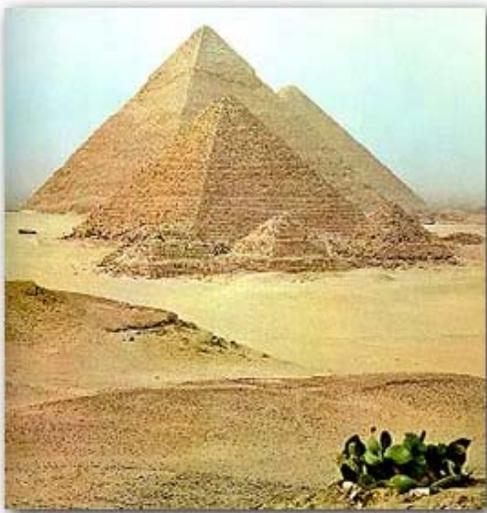


Structures Influenced/Quantified by Cosmic Ray (Muon) - Neutrino Detectors

- **Gran Sasso/MACRO - Italy (with ~ 10 years data)**
 - **Shadow of the Moon**
 - **Overburden of Mountain Ranges**
- **SNO - Canada (with ~ 0.5 year data)**
 - **Fault**
 - **Sand Filled Iron Ore Mining Region**
- **Homestake - NUSL (TBD)**
 - **Multi-Level Drifts**
 - **Folded Ore Bodies**



Archeological / Geological Cosmic Ray Imaging



Examples:

- **Absence of Hidden Rooms in a Pyramid**
- UC Berkeley / Egyptian Gov.
- **Volcano Eruption Prediction**
- U Tokyo
- **Historic Conservation**
- Fed. Highway Adm.



Mapping of Cosmic Ray Flux at NUSL - Geophysical Imaging Development

- **Low Resolution ($\sim 3^\circ$) Mobile Sensor along Drifts**
- **High Resolution ($\sim 1^\circ$) Stations at Multi-Levels**
- **Calibrated with EM, Seismic Images**
- **3D Density Structure Modeling instead of
1D Standard Rock (Constant Density) Interpretation**

