GEOPRISMS Synthesis & Integration TEI

Day - Breakout 2

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Starting off: 5 minutes thinking about gaps, burning issues

- Melt migration in rift system and subduction
  - How does melt migrate? Asthenosphere to surface? What is trapped in overlying lithosphere?
- Fluid rock interactions
- Mid ocean rifts
  - Lots of interest low density of people studying rifts
  - Ex. Boreholes through attenuated margins
- Understanding fault mechanics/ pore elasticity
  - Volatiles influencing rheology
- Redox processes
- Seismic gaps
  - Are places with no earthquakes really with no earthquakes, or do we have a temporal sampling bias? How much of along strike variability is due to temporal variability

If you could have a workshop (or "hash-out") to synthesize one topic/theme, what would it be?

Themes

- Benefits
  - New problems
  - Novel approaches to classic problems
- Topics
  - Exhumed rock record
  - Serpentinites and hydration, water fluxes
  - Magma fluxes and relationships to other mass fluxes/ chemical cycling
  - Fluid fluxes and faulting (F^3)
    - Feedbacks between rock mechanics and chemistry, fluid fluxes
    - Slow slip earthquakes, mantle rheology

Sites

- Benefits
  - Easier to discuss when have a physical place in common
  - Diverse, invested groups good for synthesis
- Topics
  - Hikurangi
  - Primary sites

Integrating data sets

Short course, CIDER model

What activities, aside from (or in tandem with) workshops, could we do to enhance interpretations of existing data?

- Review articles
  - Example of RiMG, subduction factory volume
  - Can be in tandem with site specific workshops
  - Can help with bringing community together/ aligns with goals of GEOPRISMS
  - Can help give a timeline to individual PI's
- Open source review volumes
  - May be a more equitable way to publish
- Series of videotapes lectures for classrooms
  - Bridge gap between textbook and talks
- Wikipedia page summary of people's work
  - continuously updated, can link to article doi
- Course contents that use actual data for activities

What aspects of the GeoPRISMS program are essential to preserve? What structures do we need within funding agencies to keep this community from becoming dispersed?

- Community learning, welcoming and encouraging environment
- International and amphibious aspects
- Smaller schools without graduate programs is able to go to places like Cascades more easily than places like Aleutians

How do we voice opinions to funding agencies effectively?

- Go back to big questions, show successes and new technologies
- Linkage of science to hazards
  - Close the loop to hazards as much as we could (ex. Motivate with hazards, then dive into nitty gritty of individual site, but then make sure to bring it back)
- Would well done workshop help with broader impacts? Nicely done interactive maps, is a deliverable to congress, could be basis for future funding
- Two big things: Gathering, and financing of big amphibious projects
  - What is the mechanism for future funding of big amphibious projects
  - Topics chosen are frozen for several years in GEOPRISMS models, how to serve PI's who want more flexibility?
- How to motivate and reward synthesis efforts? How to incentivize synthesis?
  - Need mechanism to do this, RFP should state clearly that synthesis is goal
  - RCN could be a good model to do this, has mechanism to do this.