Overview: Field nearly finished Saltito
2 days on San Juan de los Plana Road Fault
Most effort on San Antonio area + St. George.

SJP - Road area
- Granite/gravel contact very interesting
- Paleo geomorph as system.
- Why is so much granite around, especially on the footwall?
- Not obviously active
- Could do topographic across here
- Look for thin tectonic slices along faults
- Have to do more spot work, otherwise thinner
- 12 days of mapping to go

- San Antonio: Gravity on Fandango, complemented by gravity along SJP Highway

- 8 days to finish the SJP F mapping
  + Gravity Lines: Saltito
  - SJP Highway
  - X Fandango

Saltito - Fault near beach is Santa Cruz Fault
- 600m long

Genaro: Tracing, help
North to last major drainage and up it.
- fan summit at 2000 ft. Could this fault? established plan feed rate?
- granitic granite w/1 cm open fractures, v. thin white schist, oz 1 cm
- White behren and gneissic granite, sheared & fractured w/
  fracture planes, in fractures + purple+ maroon.

- NVA 95 NW - ex. fracture + lava representative
  NVSE 555E 592E 6E - major slips on NNE fault surface
  Thrust plane

S 0 E 4 1973 NW 90 NE rake - delta above about
20-30 m wide fault zone is upsloped + local incision nucleated on a white gneissic rich, very felsic granite.
- Beautifully fractured granites here.

W end of mapping - 200 m wide NB 2E - trending cataclastic
zone of clay solids between brecciated zones

- Summary: AQA z is max aggregation. The granites in gray fault
  assoc. w/it (chert core) correlated + all granitoids & lots
  of intermediate rocks do separate fault sets + throw/steady accumulations.
  No faulting of AQA z. Although, occasional every where &
  heavily fractured. -> NNE-EW fracture and fault trends, generally
  steep.

Note that the last stop of the day was on the highway @ the fault where
the AQA z is clearly hinted into AQA z surface by 100 m. So, above
mapping and commentary should have the AQA z redescended as AQA z

Items:
Pablo - Exhumation ages for SJP?
- No data, gravity?
- Trench site?
- SJP footwall structure?
Plan: Melanie + Josh map fault to main younger map overlap while I map north along young scarps + cross through drainages to west where second fault on contact is evident.

Meet back at truck at 5:30pm

3.05.07A 0595107 2645093
- overview of drainage. Grassy hard+ gravel comprise footwall units. Older ones (main cliffs) are tan, younger (or reworked) are more gray.
- Scarp to south is hard to get a sense of because veg.

3.05.07B 0594762 2644962
- Scarp in gentle + low hill, developed in Qyaq before.
- I mapped fault in mid scarp position on map.

3.05.07C 0594730 2645051
- Right on the fault here.
- Granite to west, grayish, ill展演 to e.
- Major joint set in granite = 290-355° + vertical
- Low-angle faults w/ lepidolite contents + nicely slice (some infill here): N55E 20NW 0.5°
- Granite: crs gr = 1cm pink feldspars, ven. Qtz, 0.2-0.5cm white feldspar, fine (0.1cm) biotite

3.05.07D 0594827 2645973
- Topographically unit - 3cm pebbles, pebbly, rare cobble. Unit is mostly plane bedded here, pebbly gravels are usually clast supported, right to moderately indurated. I think lean is clay unit from soil formation after deposition, unit underlies Qyaq which was its depositional culmination.

3.05.07E 0594569 2645369
- Seems to be the fault here w/ granite on west side, but the block of apparent gr to s seems too jar & will break.

3.05.07F 0597534 2645422
- 110, 055W 1010, 90 on fractures in weathered/fractured granite

3.05.07G 0594571 2645416
- Fault here; gray hard + pebble cgl against grs/granite - completely fractured, but debris/pegmatites still evident
- Fractured granite to w/ overprint of 5cm plane bedded tan unit w/ zones of 340, 90° fractures with no obvious shear- see sketch next page
OCT 230-096 sketch

300°, 340°70°

hard granite

fractured granite

tan unit

Serano: Guadalupe Rancho Cañada

3. arcad problem for Melanie and Josh

worry about cutting the plants for mining

exploration 1?

3.05.07 H 059905 2645074

Lunch spot in entrance to granite gorge

Grande is heavily faulted. Many polished epidote surfaces:

330°, 25° NE dip, slip: 060°, 60° SE dip, slip: 160°, 05° NW, 70° west

Upper dip appears to be more weathered granite (not tax unit?)

5 070°, 45° SE Strike-slip: beautiful striated green epidote fault surface

3.05.07 E 0594051 2644810

Water in creek, lots of pretty fahn trees.

Granite on both sides of gorge to top of slopes - possible tax unit under Rancho Benito

Granite at upper level of gorge had nice banding block, ultra-mafic-like or pseudotachylite.

3.05.07 E 0994055 2649699

00°, 060° in unmineralized dikezone in granite. Suggestion of dike slip

5° maybe gray Calcs.

3.05.07 K 0597250 2644566

Heard weathering about the tan unit, but the top of this block in this area show granite or weathered granite. What represent uplifted pelmatite?

3.05.07 L 0597897 2644639

All granite here. Fracture density seems higher than to last. Here a dm elsewhere a few dm spacing(?)

3.05.07 M 0593728 2644658

Nice klinker with fractured granite.

3.05.07 M 0594001 2644835

These, 10-20 cm thick ultramafic dike, fault zone (prob also epidote) N30° W, 105°, inc.

by thin, very individual and intense, 250° trending shear (ultramafic zone filled faults).
Definitely have tan unit at top of ridge to s. Here it is bedded and clearly overlying heavily pulverized granite (light zones on photo). Evident boundary in photo: 335, 50 NE fault putting fractured granite over pulverized, gorged white, grey, pink granite.

30.07.P 0593900 2645117
- 60m thick pulverized fault zone bounded here by another sharp fault contact 355, 60 N.

3-05-07 Q 0599294 2655050
Quickly mapping top of ridge. Harder to define tan unit (bedded tan, clay rich material). But the unit is a few meters thick on the flat tops of ridges where veg is also more lush. All drainages quickly expose granite.

Composite cross-section though clay’s map:

Idea: U-Th-He on some of these granites to put zone max age on the pediments? (and Oya?)

3-06-07 R 0593900 2646585
- Continue letter from yesterday
- Start on single fault trace near and into where it bifurcates from preschool (?) pulverized fault zone in western part of yesterday’s map area.
- Start here is >4m w/slab, but bedrock-cored faultwall

Simple GPR scarp profile starting at: 0593982 2646607 E-W

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3-06-07 S 0594127 2646385
- Tan unit caps pediment granite locally here. I will call it W, but it seems to merge with Oya. Contact w/granite in hills to west in consistent w/ depositional w/ lower units to E.
Another topo profile

Profile

GPS across Scarps

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Lunch stop
- Scarps are weak to non-existent in this transect. There are clays adjacent
  of them at the right places, but only that.
- No granite in hanging Wall soups (1.5m deep).

U. 06-07 0594231 264.27
- Scarps at top: marked zone is slightly stripped tan unit; 3-4 cm probably/surface
- Deeper fault zone, if there, is marked by 1.50 cm wide vegetation lineament.
- Difficult to see any topographic variation. 100m N, some gullies head at approximate
  level lineament

Profile: start at 0594921 264.5732 end at 0594203 264.5922

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Lunch stop
- No evident diagonal GPS from 264.15 to 264.8
on top of arkosic granite zone. Top unit not mappable. Top unit broken by 350° fracture.

3.06.07 W 059 4302 269 5685
- Beautiful节点 pot-hole chert embedded in drusy chert above top of unit.
- 120.40 NS on a bedded quartzite, hard cut (down to) by 025. 4556 epidote coated fault.
- Fault zone is 20m thick, similar to 3.05.075. Top unit thin above footwall > 15m thick on hanging wall. Growth points developing in hard granite w/away from fault.
- 340, 49 NE on definite fault of gouged granite against tail unit.

3.06.07 W 059 4565 269 5554
- Add to the fault zone. All 3.05.076 chert: Western fault is important and
  drops top unit contact down 10-15m to 3. Major fault in western one
  Top unit above here is definitely fractured.

3.06.07 W 059 3972 269 4885
- Top all have ridges do not have top unit, but are flat. I mapped them as top, but
  this may just be eroded down to

3.06.07 W 059 3974 269 5547
- Clearly top unit/chert contact down faulted to 3 about 2m. 004° local trend for fault
  and fracture. Steep dip to 3.

Genaro - April 1 - 8
Cuadrado - Alicia
Sara

- Hurricane access = unusable
  - Domain

Gerard Roe - Colliu stand passes on Typhoon Taiwan interaction