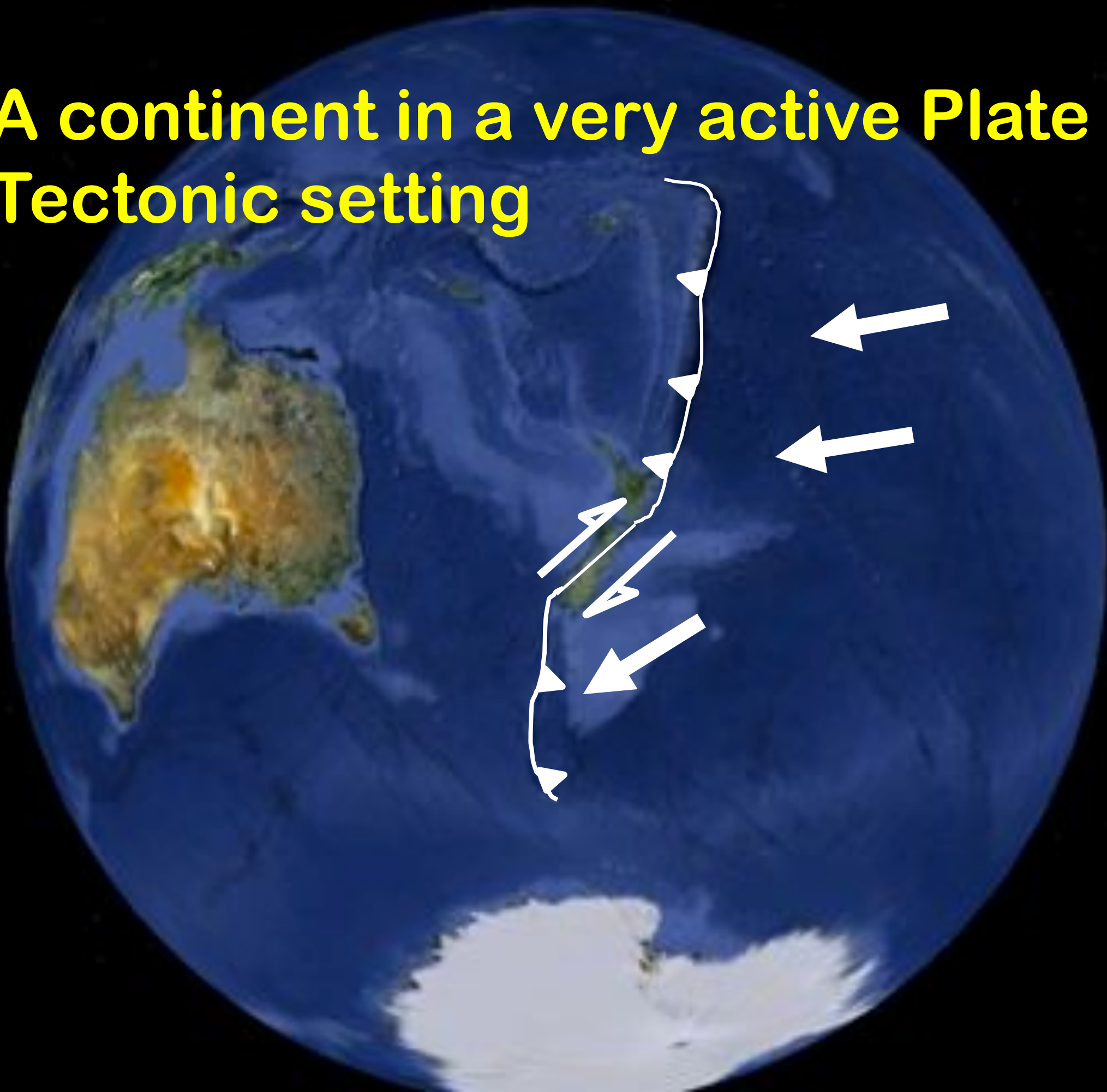


Geology in New Zealand

Winter 2016



**A continent in a very active Plate
Tectonic setting**




**Some results of this Plate
Tectonic Activity:**
**Sediments that were until very
recently beneath the sea**



Some of Earth's most active
volcanic systems





Southern Alps are
experiencing crazy fast
tectonic uplift



Temperate climate glaciers:
Catch them before they're gone!

Deep incision: Fiordland



**You can see the alpine
fault from space**



**Compressional tectonic forces deform rock,
and we study this a lot...**

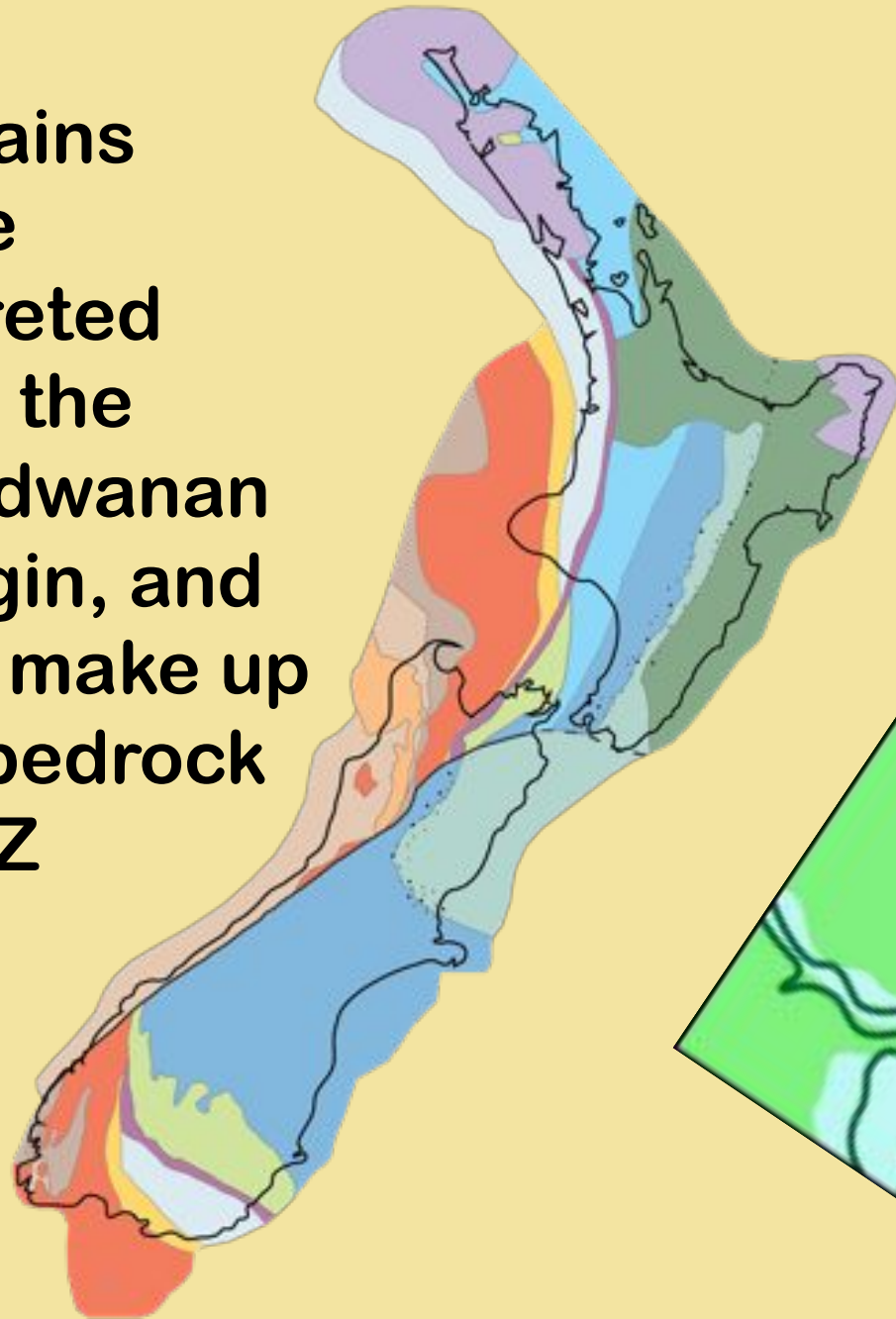


Down-side to this is earthquake hazards

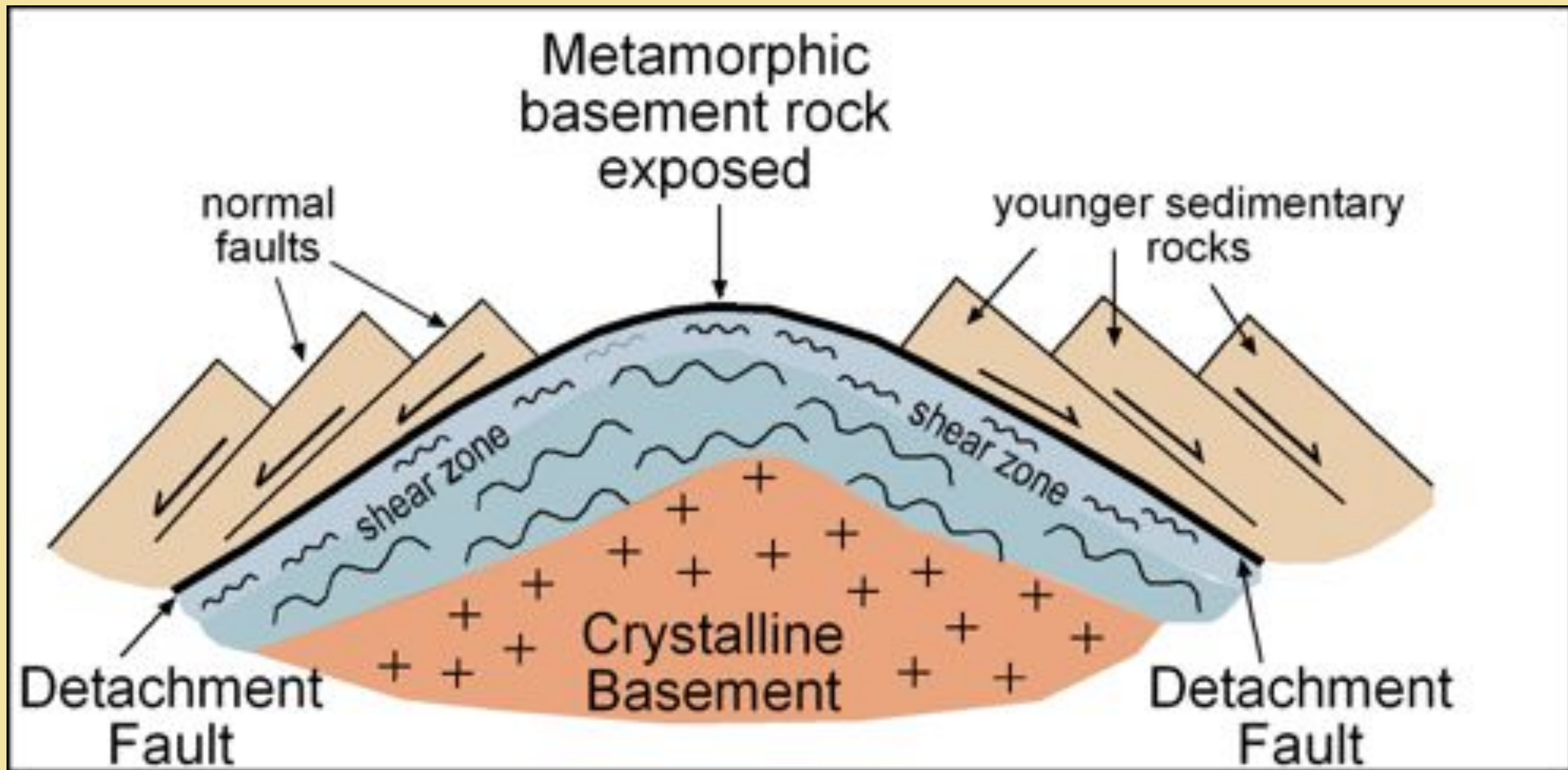


There is a Gondwana story here, too, on both Islands

Terrains
were
accreted
onto the
Gondwanan
Margin, and
now make up
the bedrock
of NZ



**To tear New Zealand from Gondwana,
there was great stretching of the crust**



A close-up photograph of a rock surface showing a complex, layered texture. The rock is composed of dark, fine-grained material with lighter, more crystalline patches and veins. A dark, circular coin is placed in the upper left corner to provide a sense of scale. The text "A chance to study rocks of every type" is overlaid in yellow in the lower center.

A chance to study
rocks of every type

2016 PROGRAM LOGISTICS and General Information



North Island 1st five
weeks

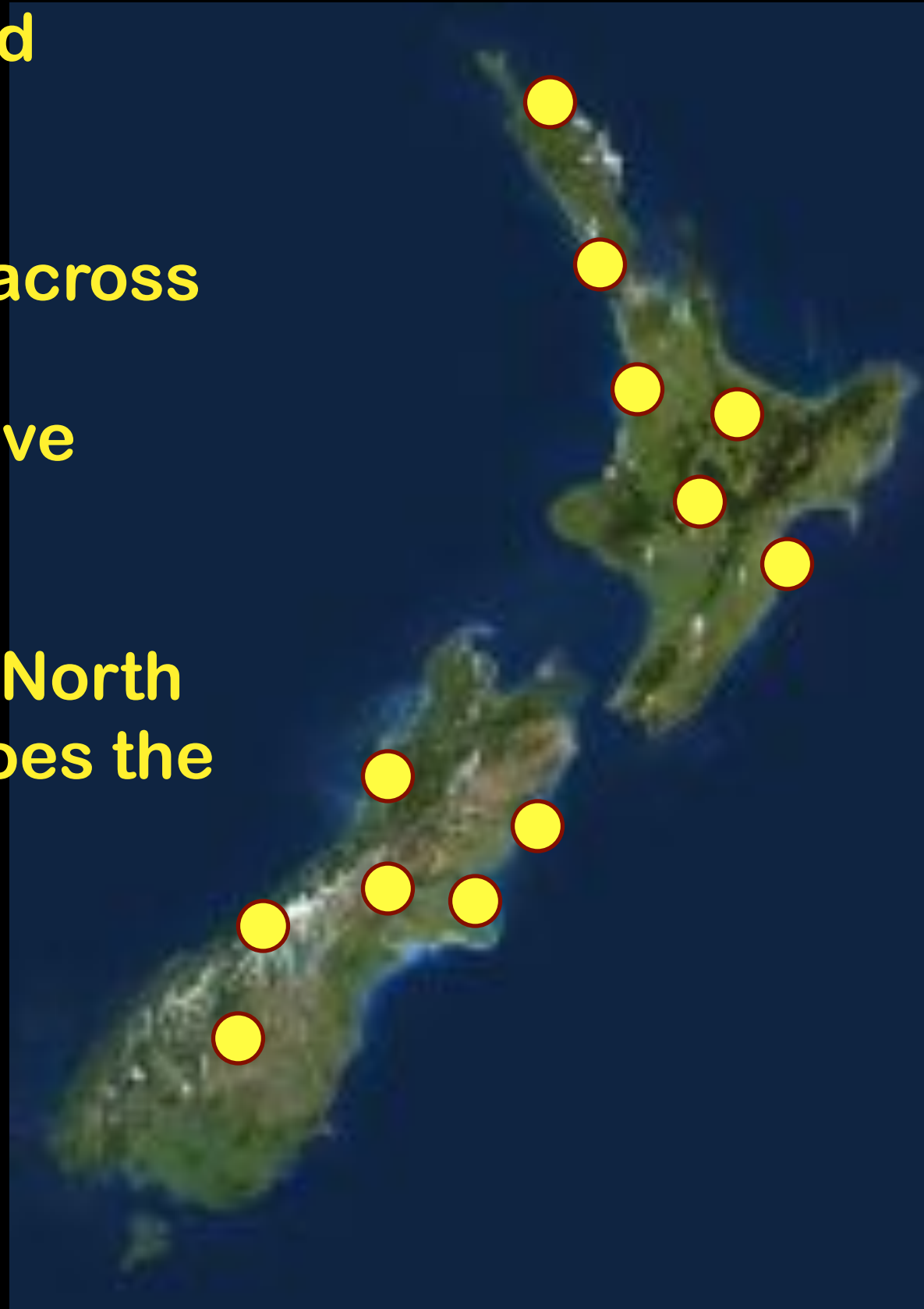
South Island 2nd five
weeks



**Project – based
curriculum**

**Wide ranging across
both islands
(means we move
quite a bit)**

**Clint does the North
Island, Cam does the
South Island**





Students are responsible for flights to and from NZ, and for MTB travel

(financial assistance available through the College)



**Programme
starts in
Auckland
Wednesday
January 6
at 10:30 am**

**(the program
does not
overnight in
Auckland)**

**5-day Midterm
Break between
halves (you get
yourself between
Auckland and
Christchurch)**



**There is an
allowance for
Housing & Food for
midterm break**

Long distance bus fares from \$1* New Zealand wide

*Conditions Apply

Search Now

Travel
between
Auckland
and
Christchurch
need not
break the
budget

AIR NEW ZEALAND 

[Search](#)

Create Itinerary

Traveler Details

Seat Select

Purchase Tickets

Booking Confirmation

Fares quoted below are per adult. [Learn more about our New Zealand domestic economy service.](#)

Time format ☐ 24 hours

Baggage allowances and additional charges may vary depending on the carrier/flights selected. Select all your flights to find out more.

1 Outbound - Auckland to Christchurch

	Fri 7 AUG \$186	Sat 8 AUG \$186	Sun 9 AUG \$186	Mon 10 AUG \$186	Tue 11 AUG \$186	Wed 12 AUG \$186	Thu 13 AUG \$186
--	-----------------------	-----------------------	-----------------------	------------------------	------------------------	------------------------	------------------------

Friday 07 August 2015

Programme ends in
Christchurch at noon on
Friday March 11
(we are NOT in Christchurch
before noon, so this is
important for planning
travel)



Daily life on the program is regimented (much like a department field trip)... We live, work and travel as a group. Some activities are strictly prohibited (SCUBA, rock climbing, surfing, etc.), and will lead to dismissal

BUT... students can use the adjacent Winter & Spring Break times, for unlimited personal adventure !

(Photo by Nick Roberts '13 Kaikoura)

**During the program,
expect some rugged terrain**



**You will need
these...**



**Field work is the best way to learn
Geology... even in the rain**



You will need one of these...



...and a good pair of these



Challenging conditions



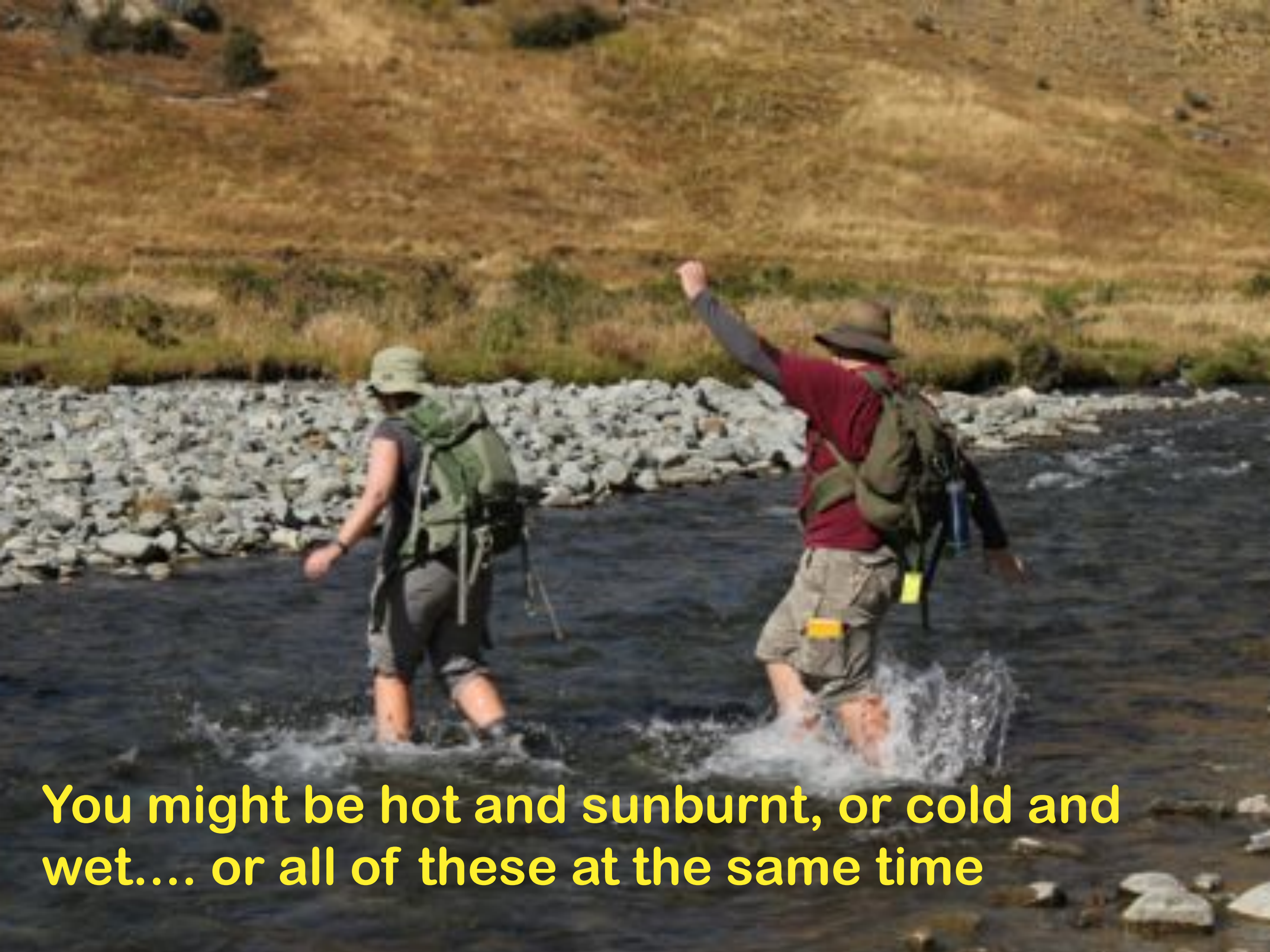
**many chances to wear
sunglasses**

**And always
wear
sunscreen**



Some days we might have to wake up before
5am to catch low tide... it will also rain on us





You might be hot and sunburnt, or cold and wet.... or all of these at the same time

(sometimes it's fun just being there,
especially during the northern hemisphere
winter...)



**We will be moving
around a lot, but not
camping**





Bunk style dorms or rustic cabin quarters
(there will be spiders...)

Communal and small group cooking for ourselves



**Almost all of the learning & teaching
will be in the out-of-doors**



**Because it's Carleton Geology, there
will be lots of teamwork LOTS OF
TEAMWORK**



We do real field science



Working puzzles out together



Presenting and defending
your interpretations



Some truly unique geological opportunities



Getting to the outcrop
can be an adventure



Local Geologists will join us at most sites

Dr. Darren Gravley

Dr. Lorna Strachlan

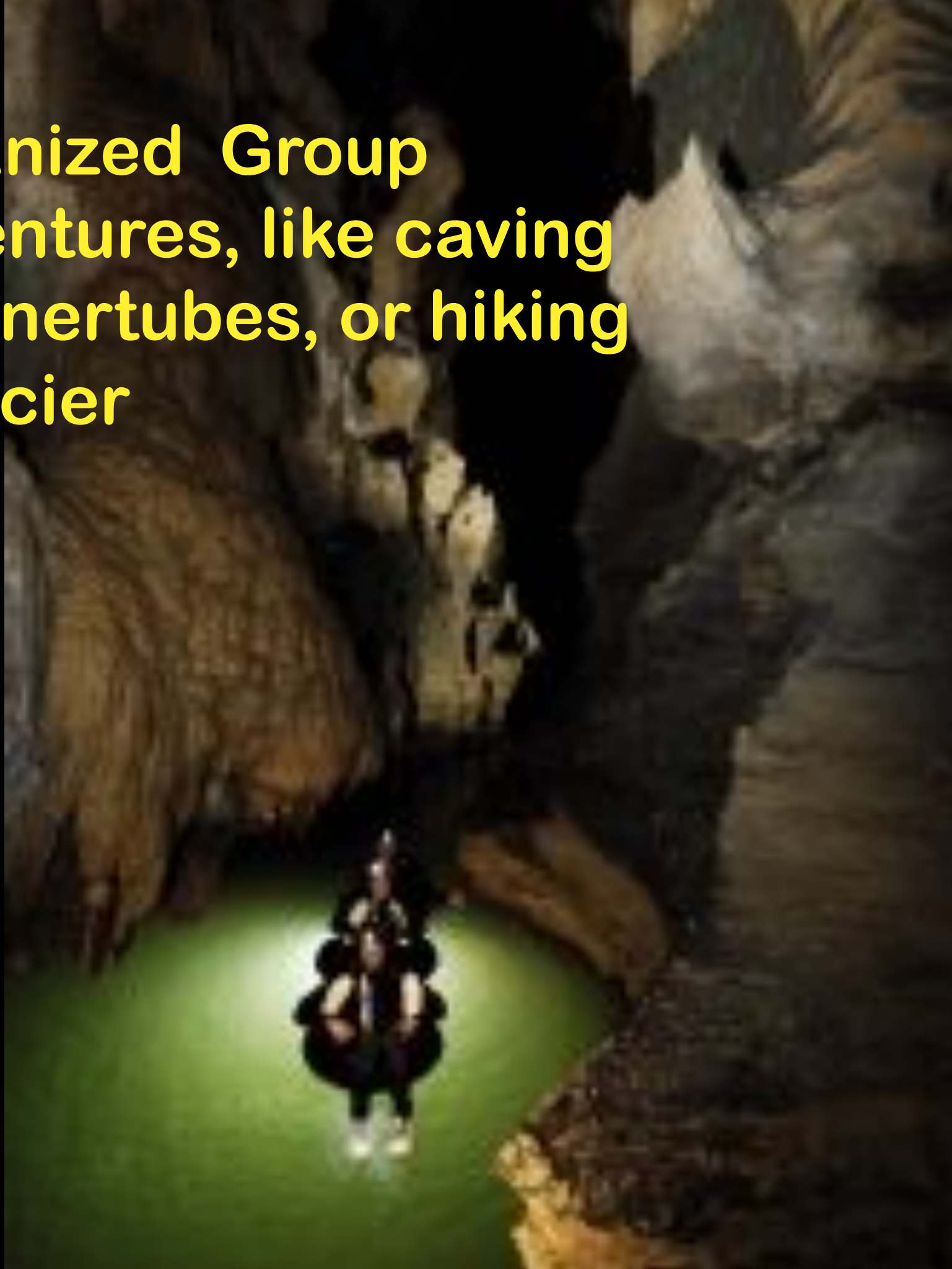
Dr. Dan Hikuroa



Marae stay with Dan Hikuroa, geologist and head of Matamātanga Research Centre at the University of Auckland




Organized Group
Adventures, like caving
on innertubes, or hiking
a glacier



- **18 Carleton Credits**
- **6 count toward the Geology Major**
- **(plus more field experience than most geologists ever get)**





Prerequisites: at least one 200-level course in Geology by Fall Term 2015, and the ability to get along well with others

**Rising Seniors,
Juniors &
Sophomores
are encouraged
to apply**



Space (*literally*) for ~21 – 24 participants



**Application Deadline Wednesday April 15
(acceptance decisions before registration for
Fall Term)**

Questions ?

**Clint Cowan & Cam Davidson
(Mary Savina & Sarah Titus, too!)
Naomi Ziegler in OCS**

