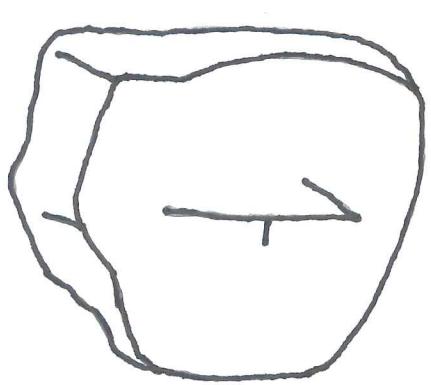
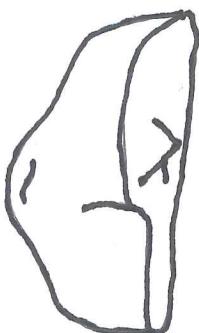


1.

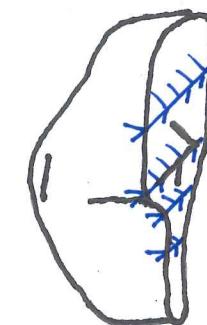
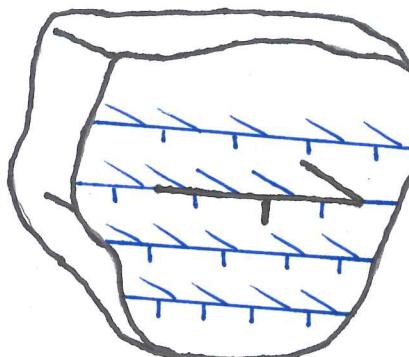


Side view



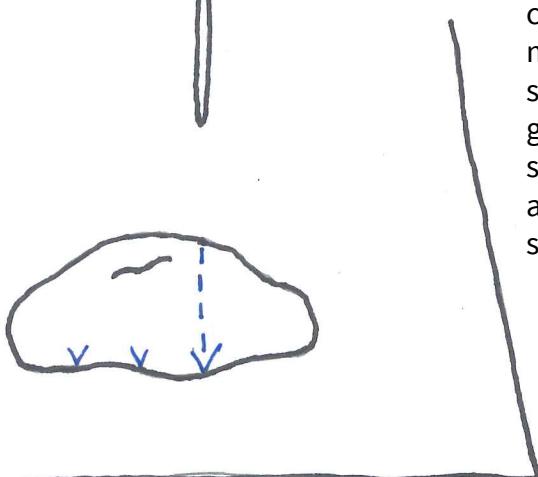
The block sample should have one relatively flat face that has been oriented in the field and labeled with a strike/dip mark, as above. The horizontal line with the arrow represents the strike of the face; the dip tick indicates which way the face was tilted downward (the down-dip direction).

2.



Use a ruler or another straight-edge to make several strike/dip lines in the same alignment as the original and add redundant markings to them (in blue above). This ensures that the oriented face can be found again if the initial cut goes bad. Additionally, I like to make tick marks on the sides of the rock face—this helps with aligning the cut on the table saw.

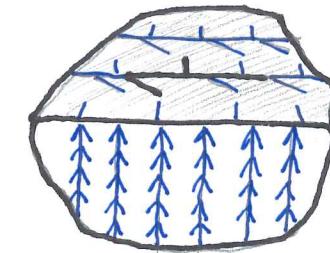
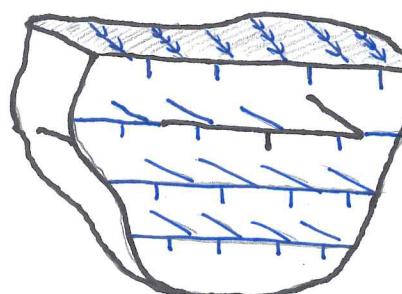
3.



Place flat face down on table saw platform. Use the side marks (or any other reference mark that works) to align the strike line with the saw blade. Make the cut while maintaining this alignment; you can improvise with table saw materials to stabilize the rock sample. As you start the cut, it is good practice to pull out the sample a few times to ensure you are cutting parallel to one of the strike lines.

4.

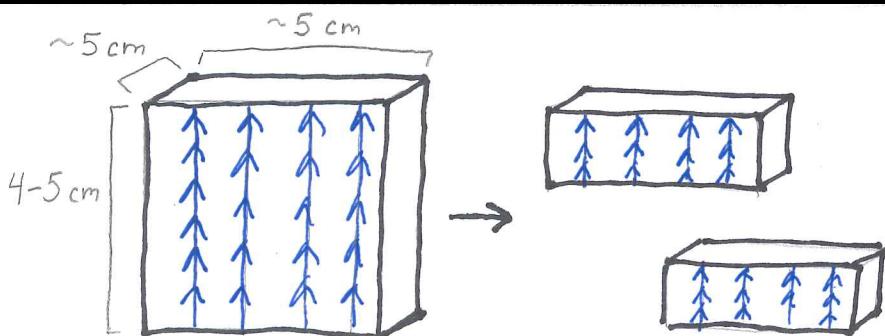
On the freshly cut face of the **down-dip** part of the rock (see above) draw several arrows pointing toward the face labeled with the strike/dip marks.



KEEP TRACK OF THIS FACE THROUGHOUT THE REMAINING STEPS!!

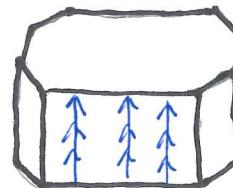
This face is analogous to the scratch mark on paleomagnetic drill cores and allows us to use the same orientation convention in our data files. Even if the sample shatters completely during cutting, we would theoretically still be able to measure the sample reliably as long as this face and its arrow markings are preserved.

5.



Use the original flat face and the newly cut face to make successive 90° cuts until you have cut a $\sim 5 \times 5$ cm cube. Aim for a height of 4–5 cm (see above), although making the cube as tall as possible will help ensure that a sufficient number of intact samples can be recovered. Cut two specimens (if possible) from the cube, aiming for a height of ~ 2 cm.

6.



Cut or sand the edges so the sample conforms roughly to the shape of a typical core sample (see glass cylinder or drill core for reference). Label with white-out pen according to the convention (also see posted instructions in the lab for labeling drill cores):

- single arrow, with dots on top and bottom
- site (e.g. "Z22-"), sample (e.g. "1") and specimen (e.g. "a") on top
- sample and specimen name on bottom