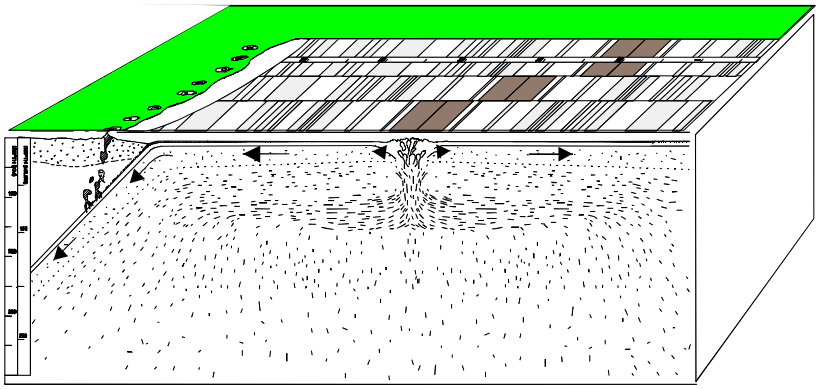
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

How to Build a Model Illustrating Sea-Floor Spreading and Subduction
Part B: Directions and Patterns for Model



by

John C. Lahr

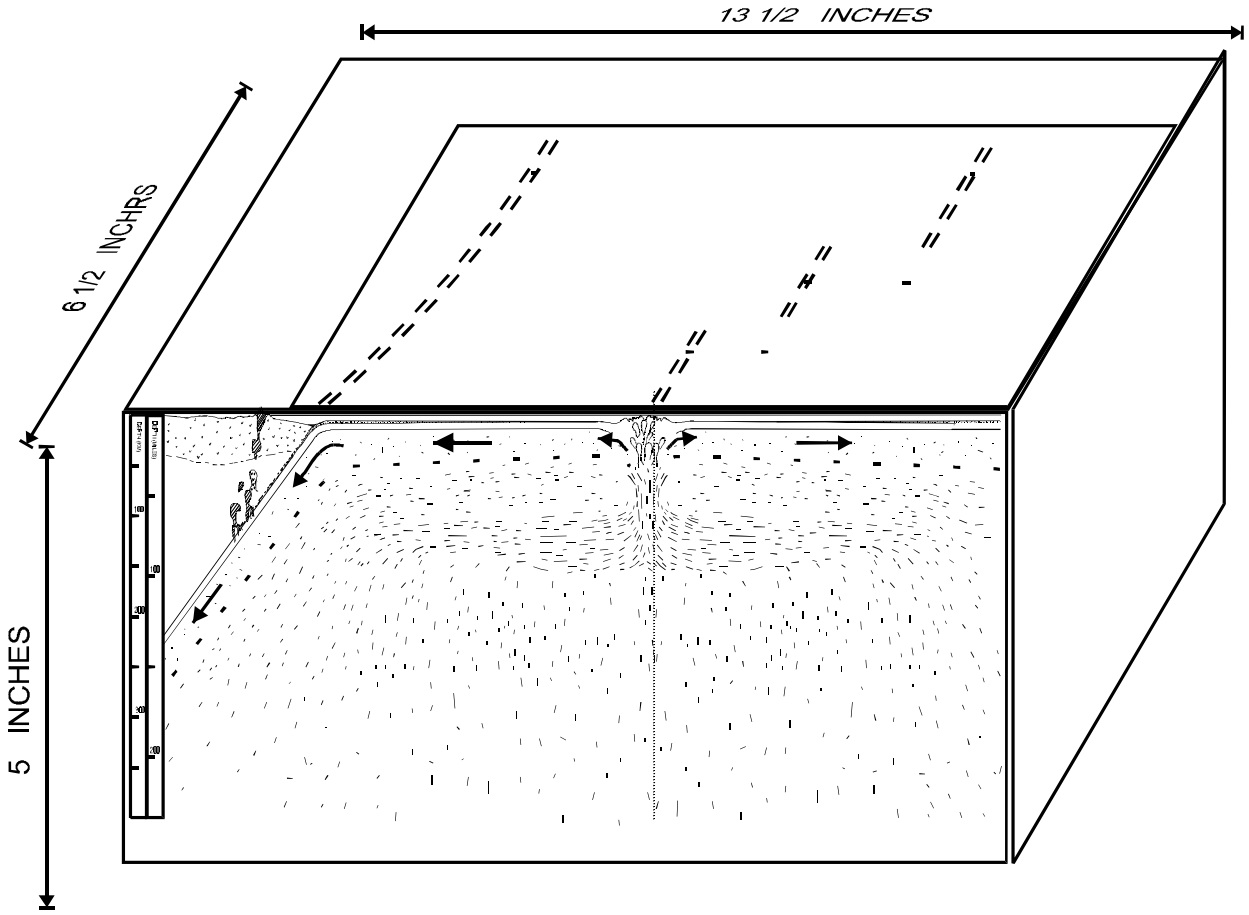
Open-File Report 99-132

Sea-floor Spreading Model Directions

1) Use a shoe box with approximate dimensions 6.5" x 13" by 5" deep.

2) Trim as indicated the pages labeled "Left portion of side of shoe box" and "Right ..." Glue these two pages together to form the cross section through the Earth.

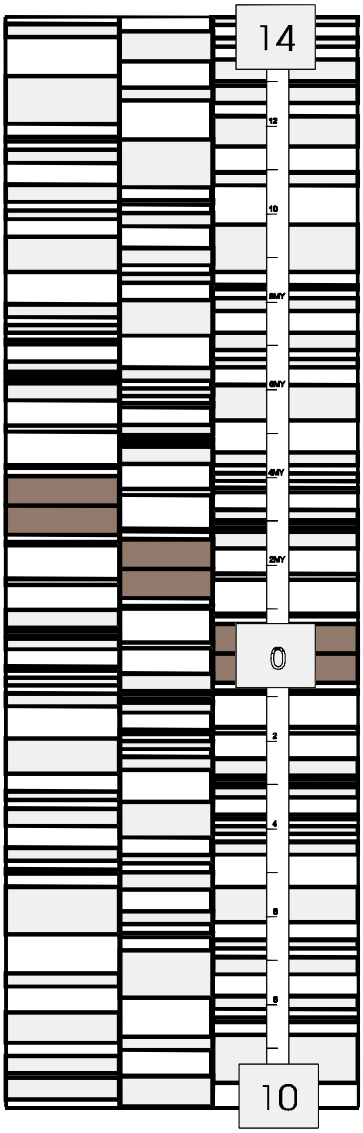
3) Turn the shoe box over, so that the opening is down. Glue the cross section sheets that you have just glued together to the long side of the shoe box. The surface of the ocean should be even with the top of the shoe box while the volcano wiill stick up a bit.



4) Trim as indicated the pattern for cutting slits in the shoe box. Orient the slit-pattern sheet as in the figure above, so that the mid-ocean ridge slit and the trench slit match the cross section on the side of the box.

5) Cut the four slits through the shoe box. Discard the slit pattern and the four tabular pieces of cardboard from the slits.

Directions (continued)



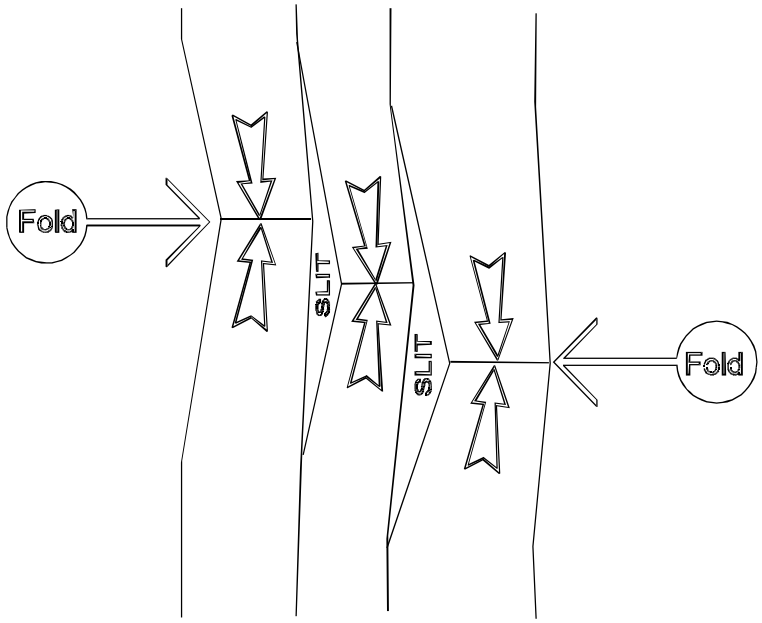
6) Trim the two sea-floor sheets and glue together so that the date-numbers run from 14 MY at the top, down to zero and then up to 10 at the bottom.

7) Cut two slits, as indicated below, each slit extending about 4 inches each way from the 0 MY lines.

8) Fold the three sea-floor strips down, as indicated, making a crease along the 0 MY line.

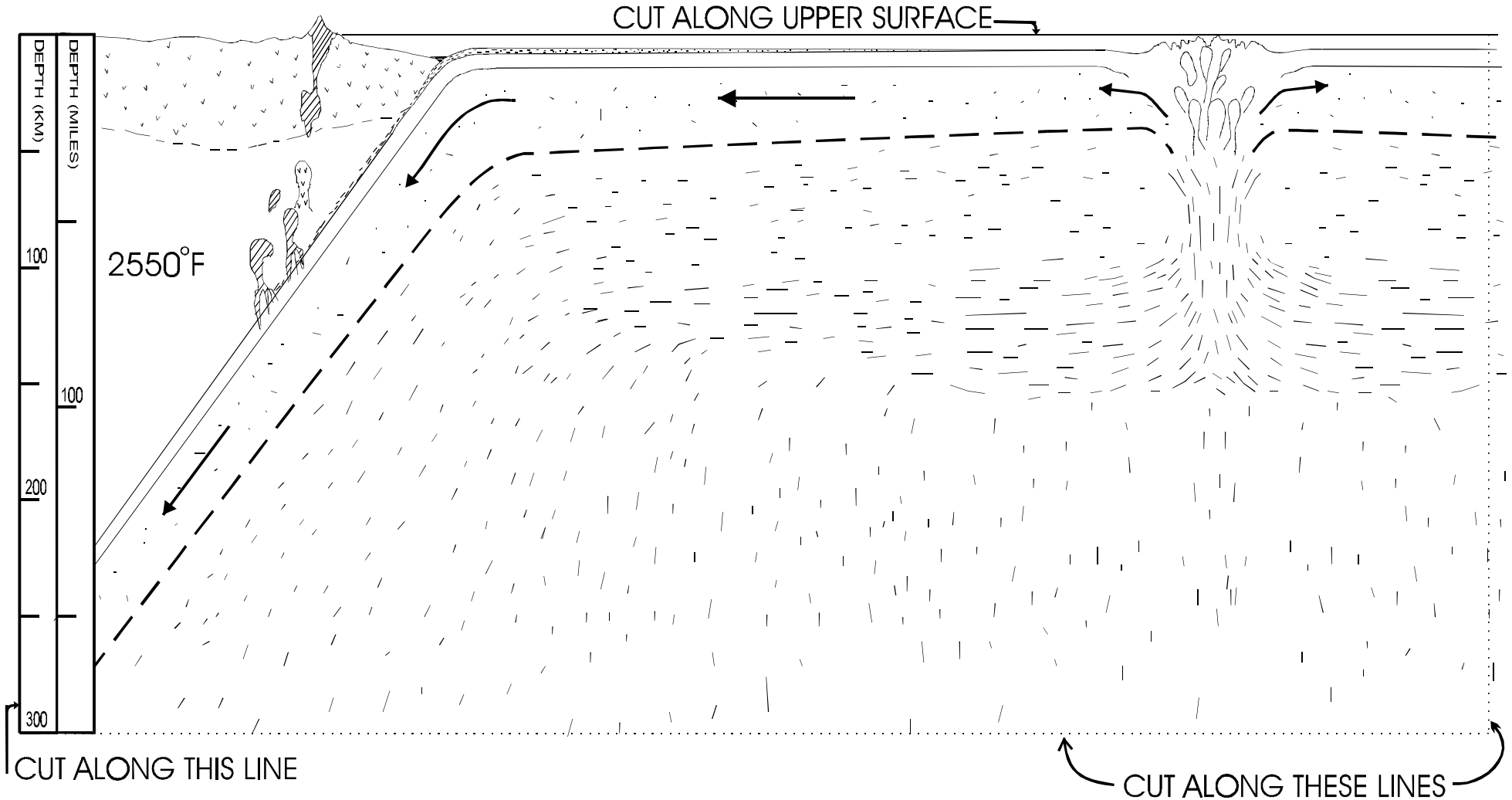
9) Slide the three sea-floor strips into the three ridge-crest slots in the box, and slide the 14 MY end of the sea floor into the trench slot.

10) Use the "pattern showing the location of land and volcanoes" as an example of where to draw the shore-line and the volcanoes. The exact position of the volcanoes and the shoreline is not critical.

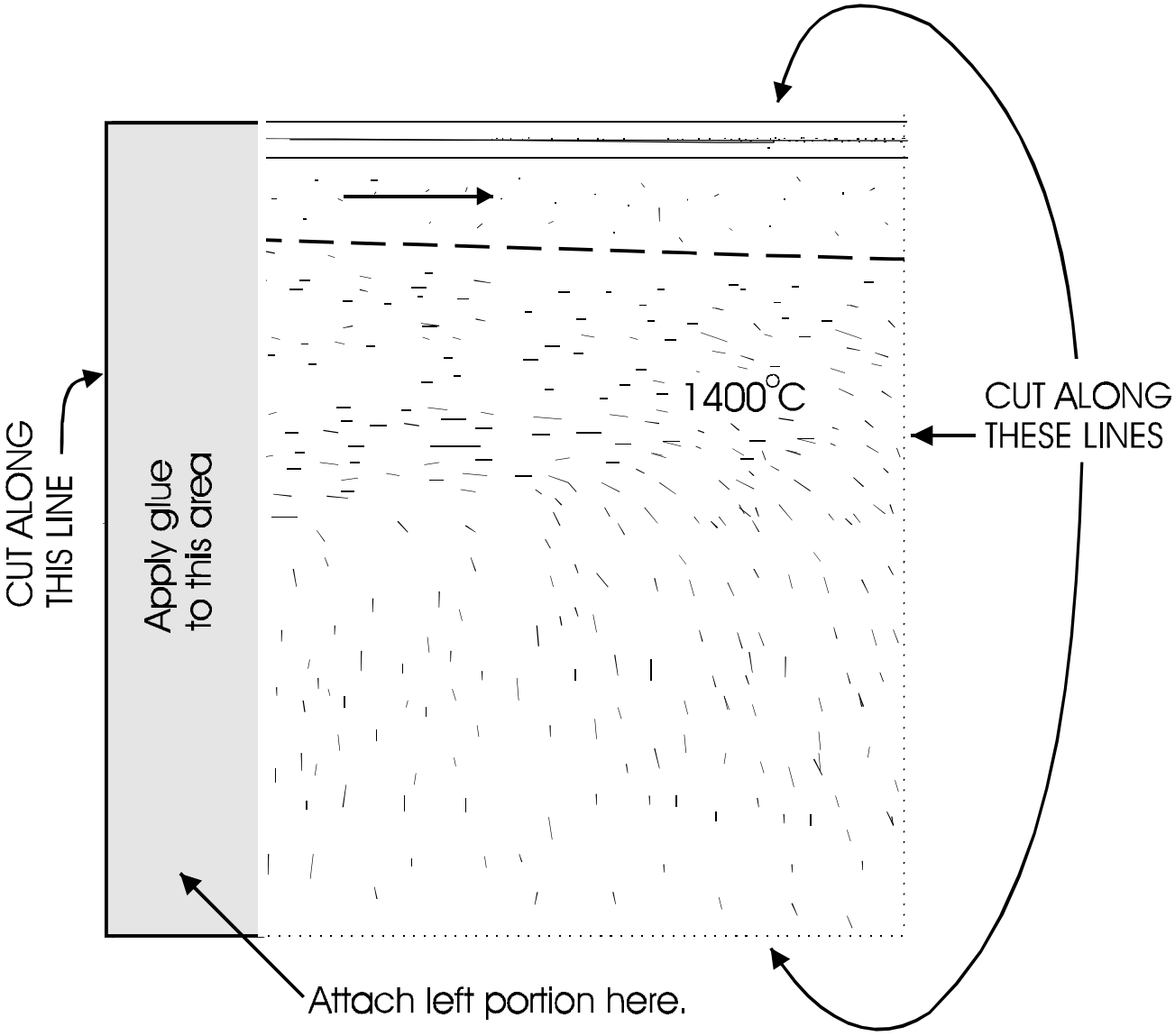


11) Colored marking pens or paint can be used to color the model.

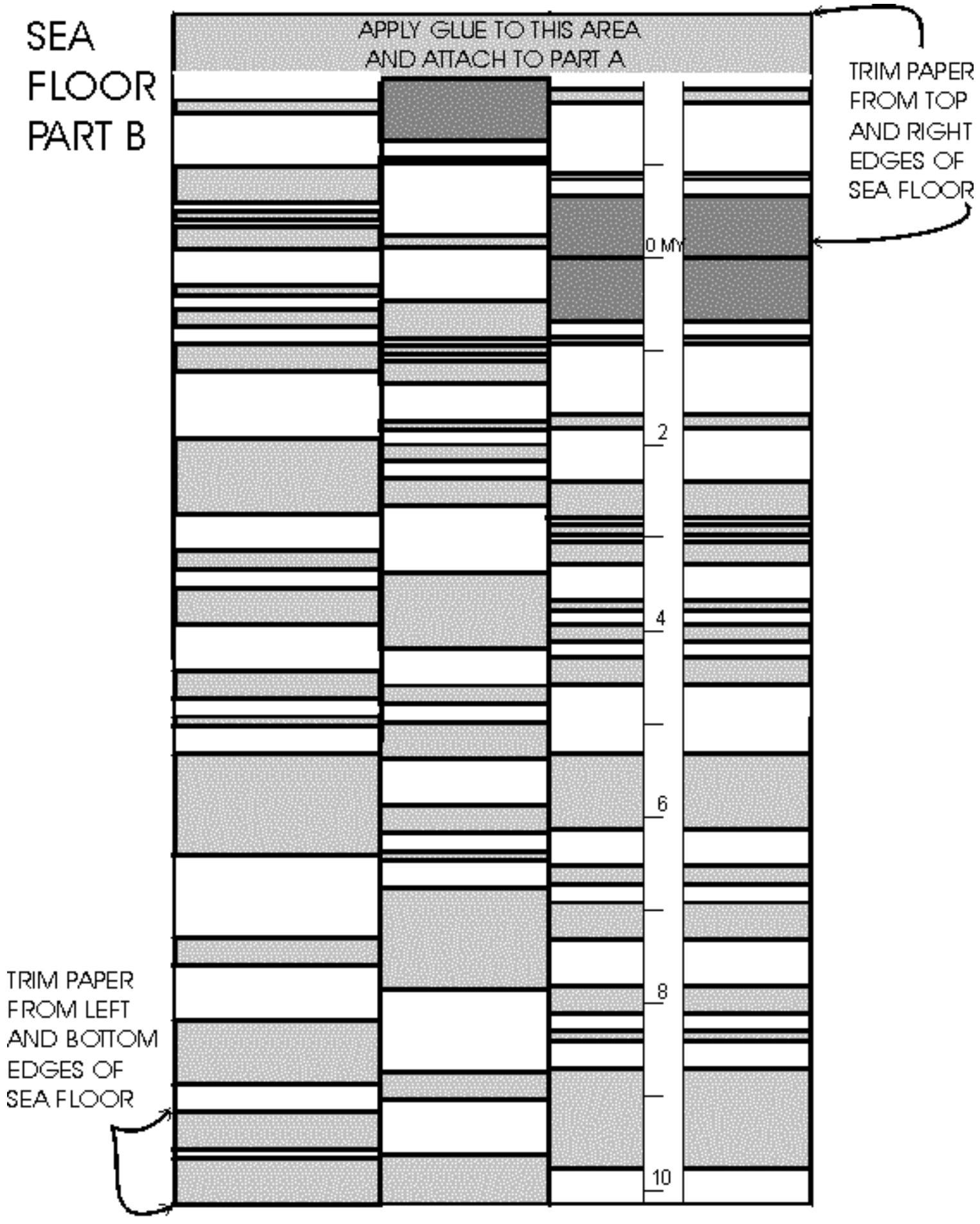
Left portion of side of shoe box.



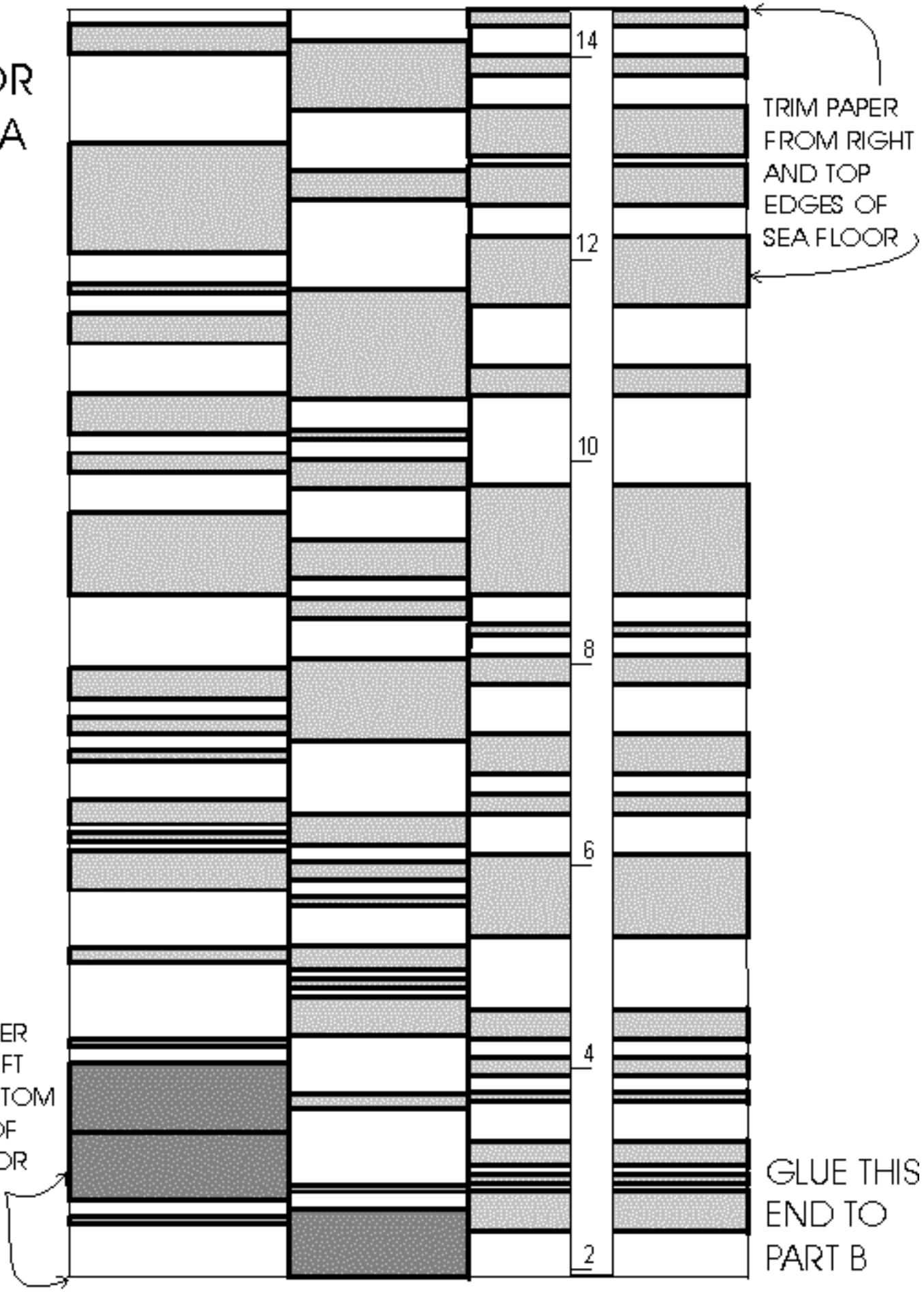
Right portion of side of shoe box.



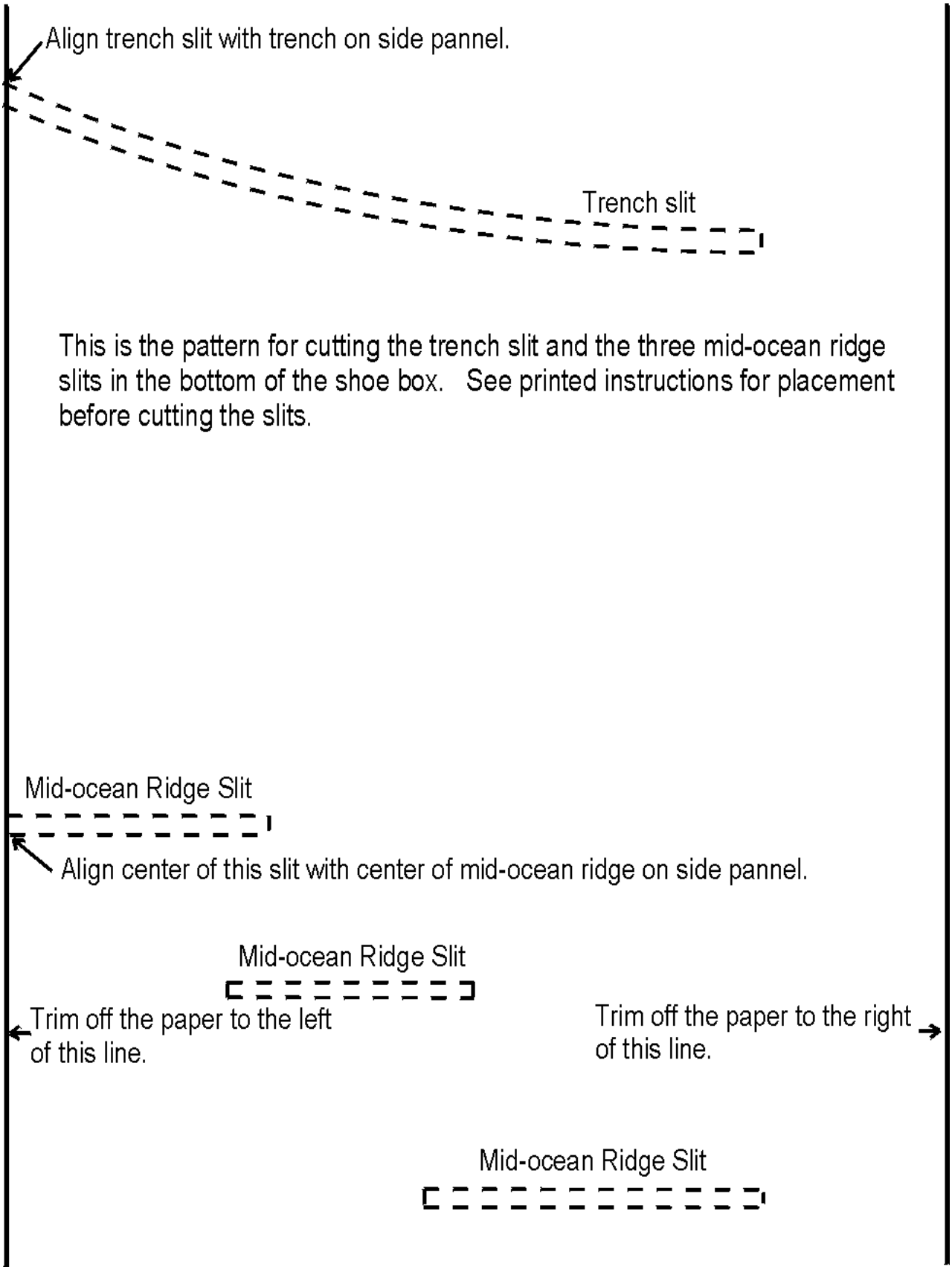
SEA FLOOR PART B

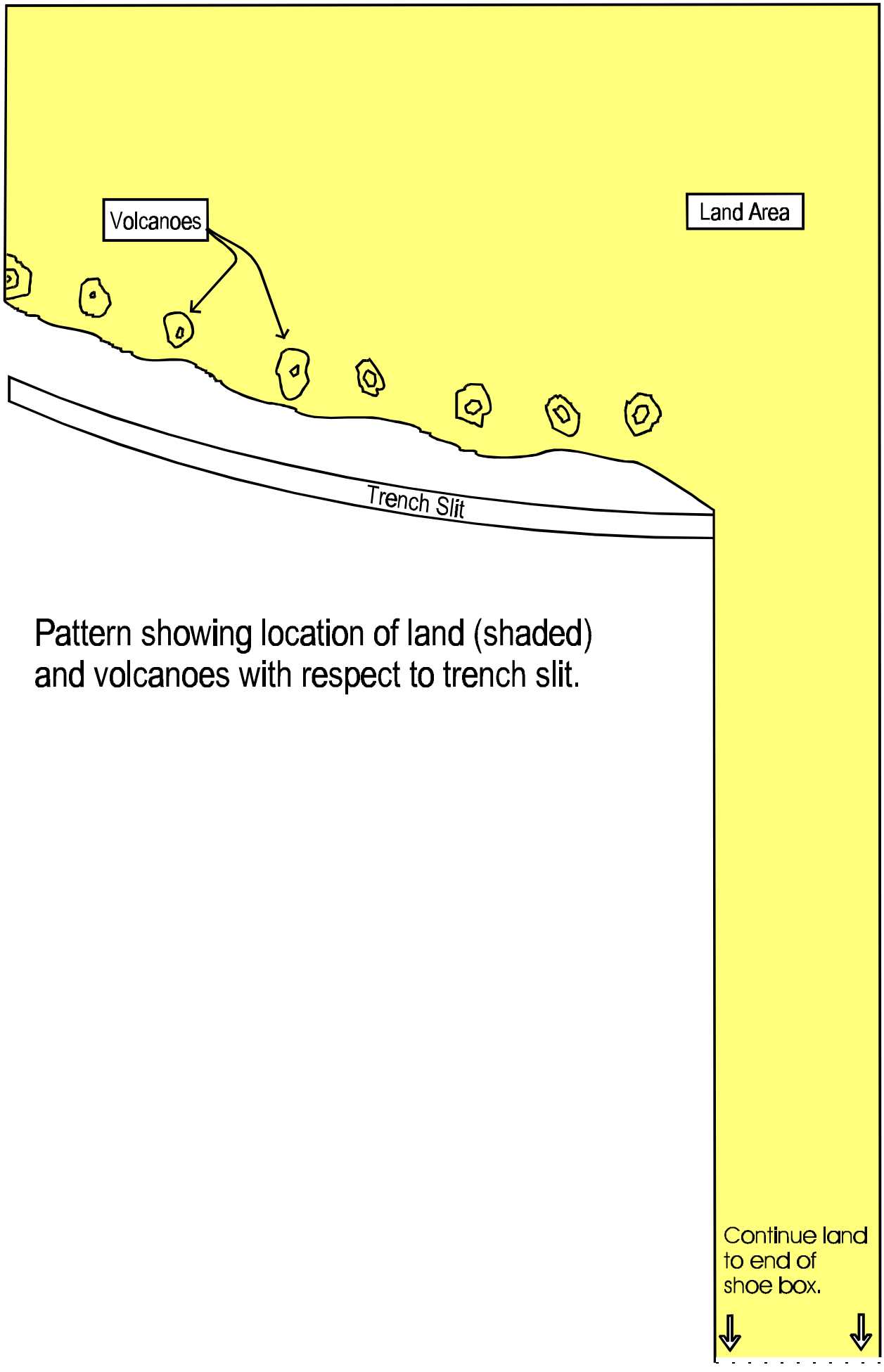


SEA FLOOR PART A



Pattern for cutting slits in shoe box.





Pattern showing location of land (shaded) and volcanoes with respect to trench slit.