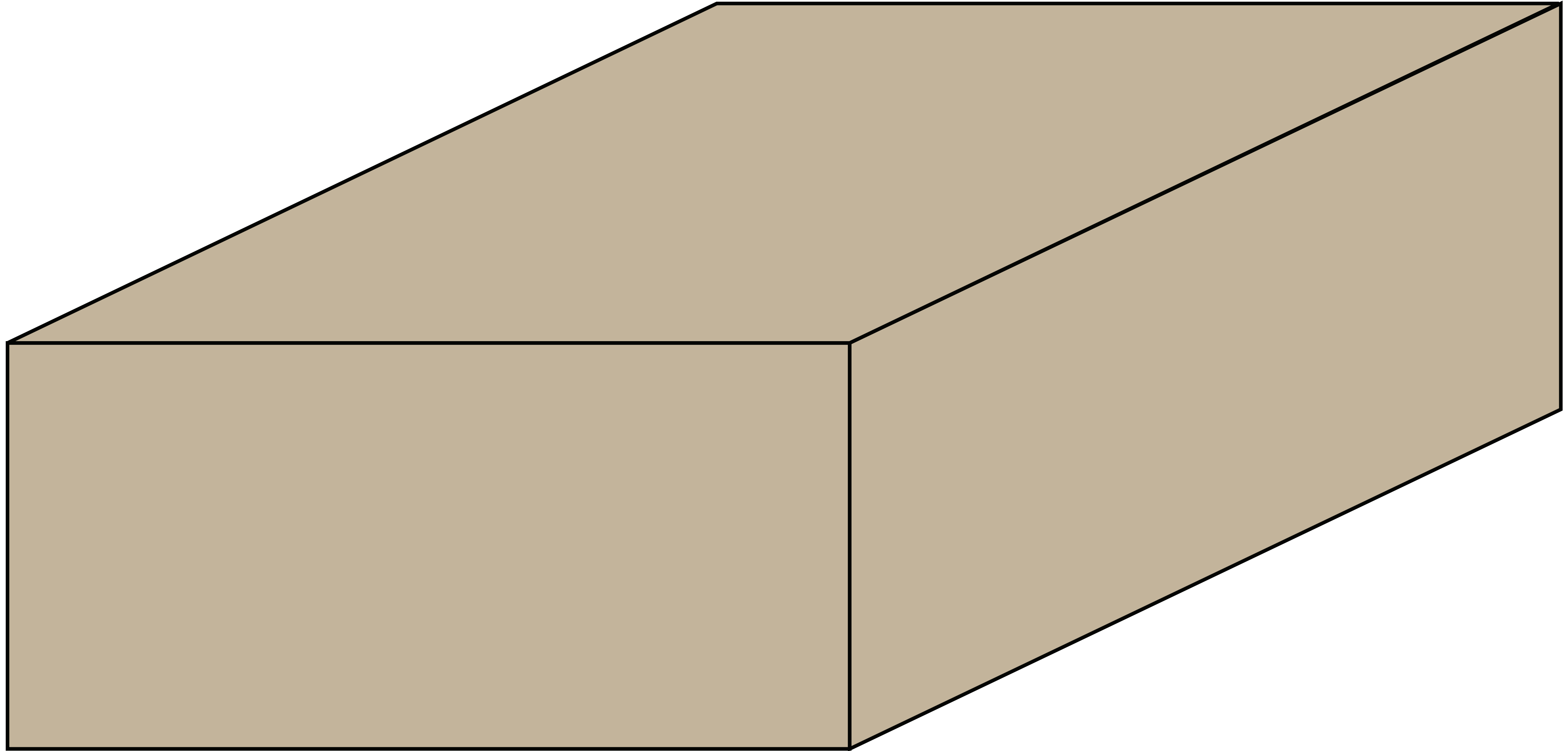


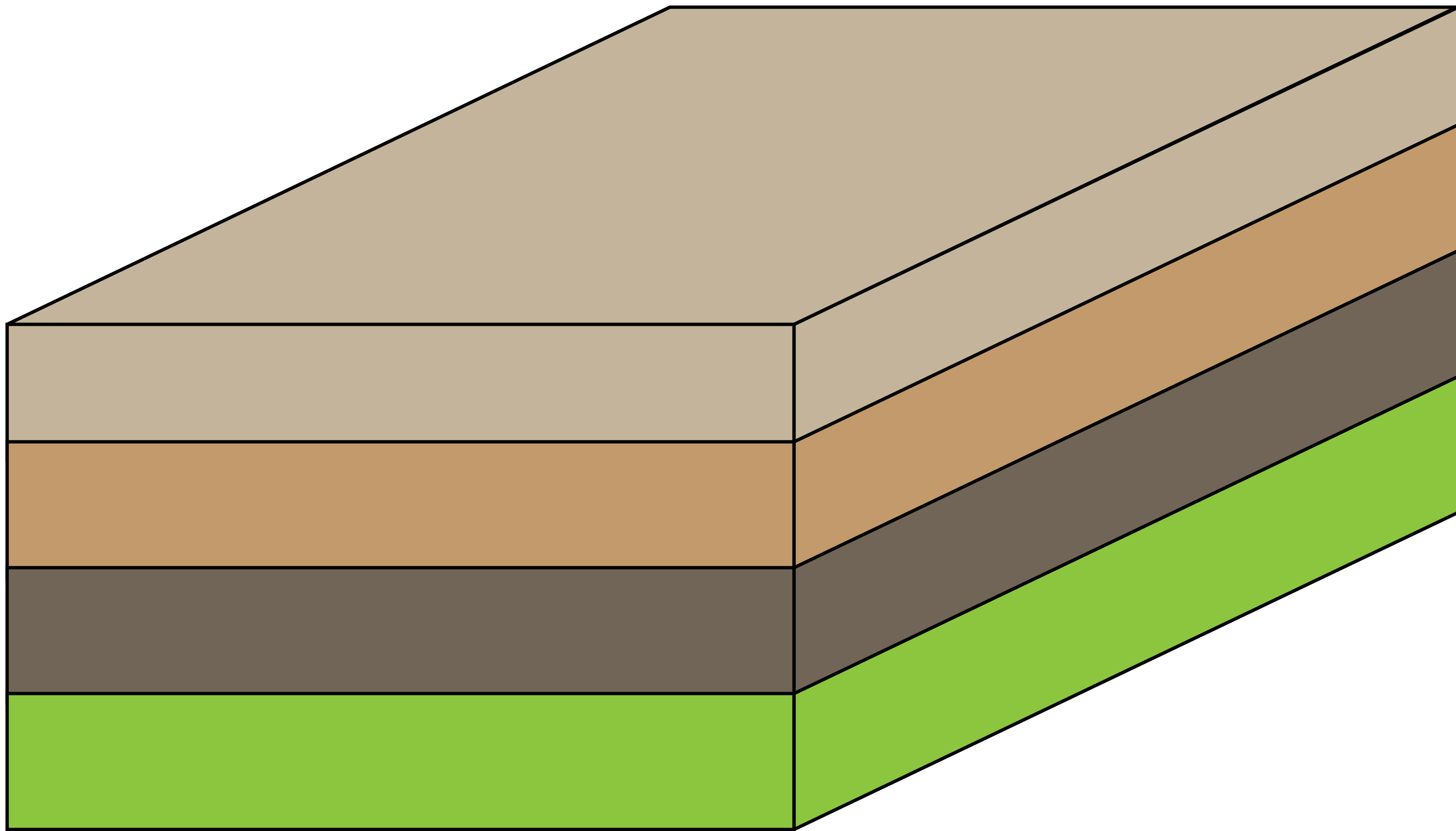
# 3D Geology Boot Camp



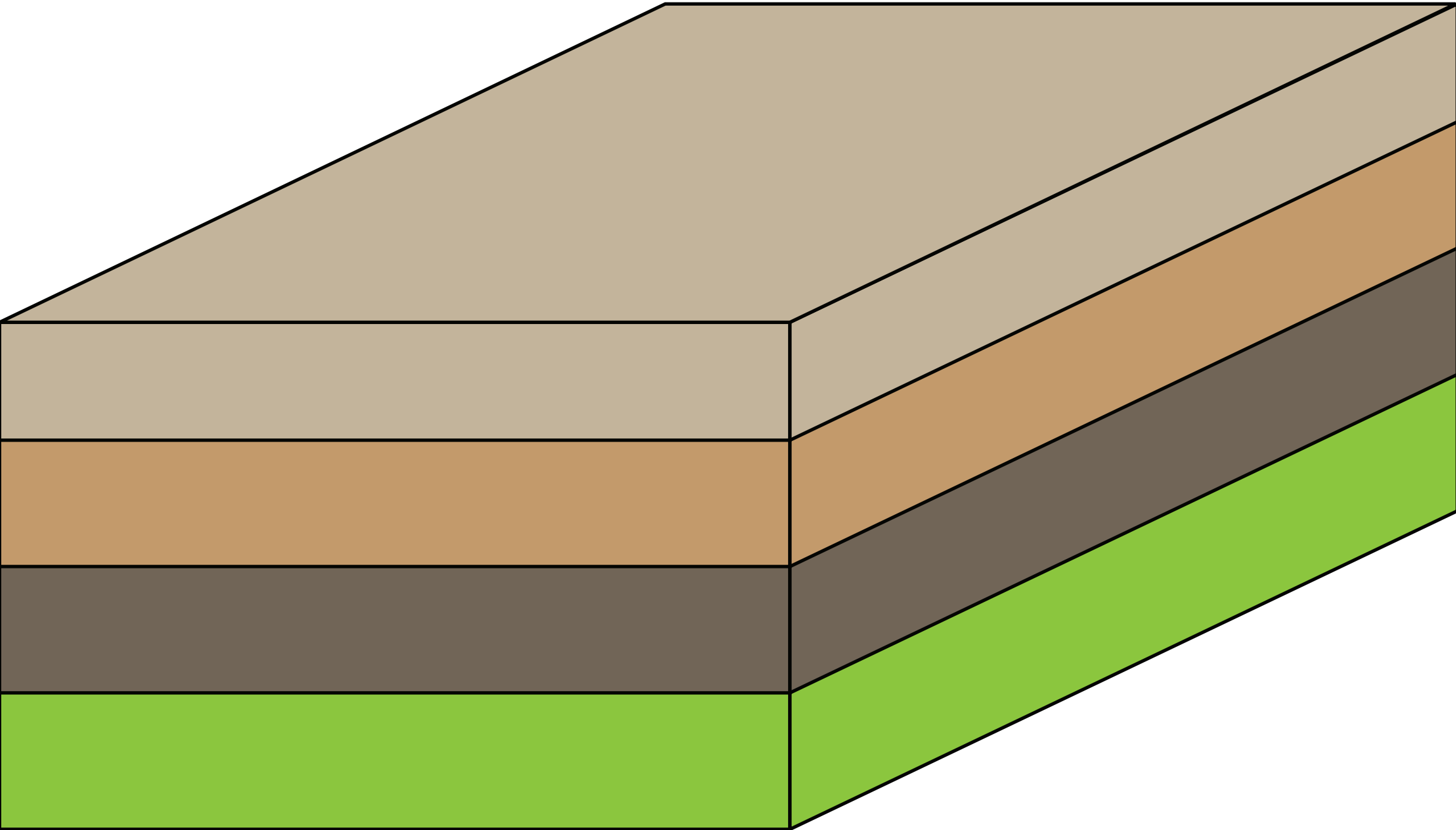
Dr. Ryan J. McCarty  
rmccarty@Saddleback.edu

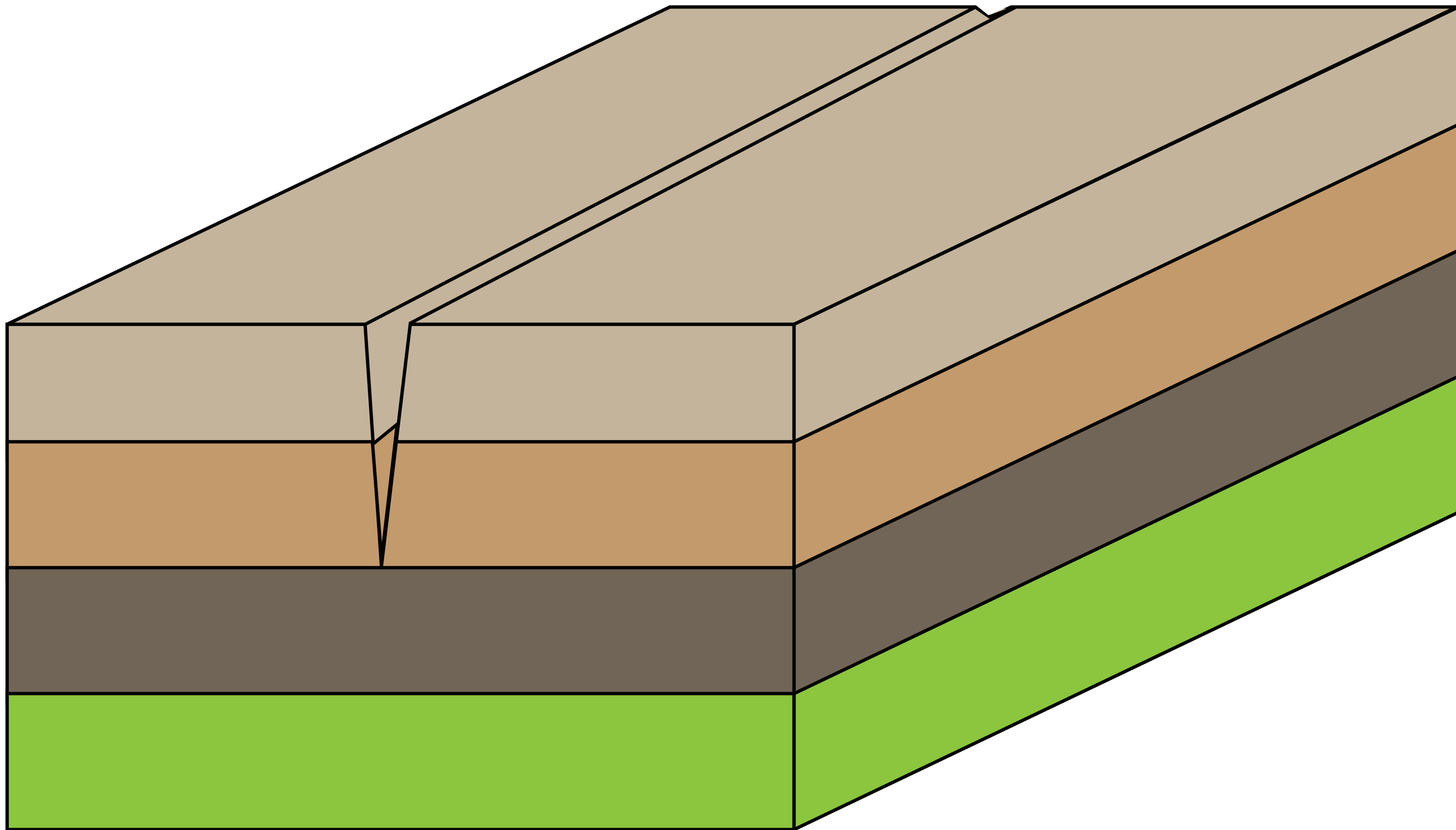
Office hours 8:30-9:00  
12:00-12:30, 5:00-6:00





Which layer is oldest?



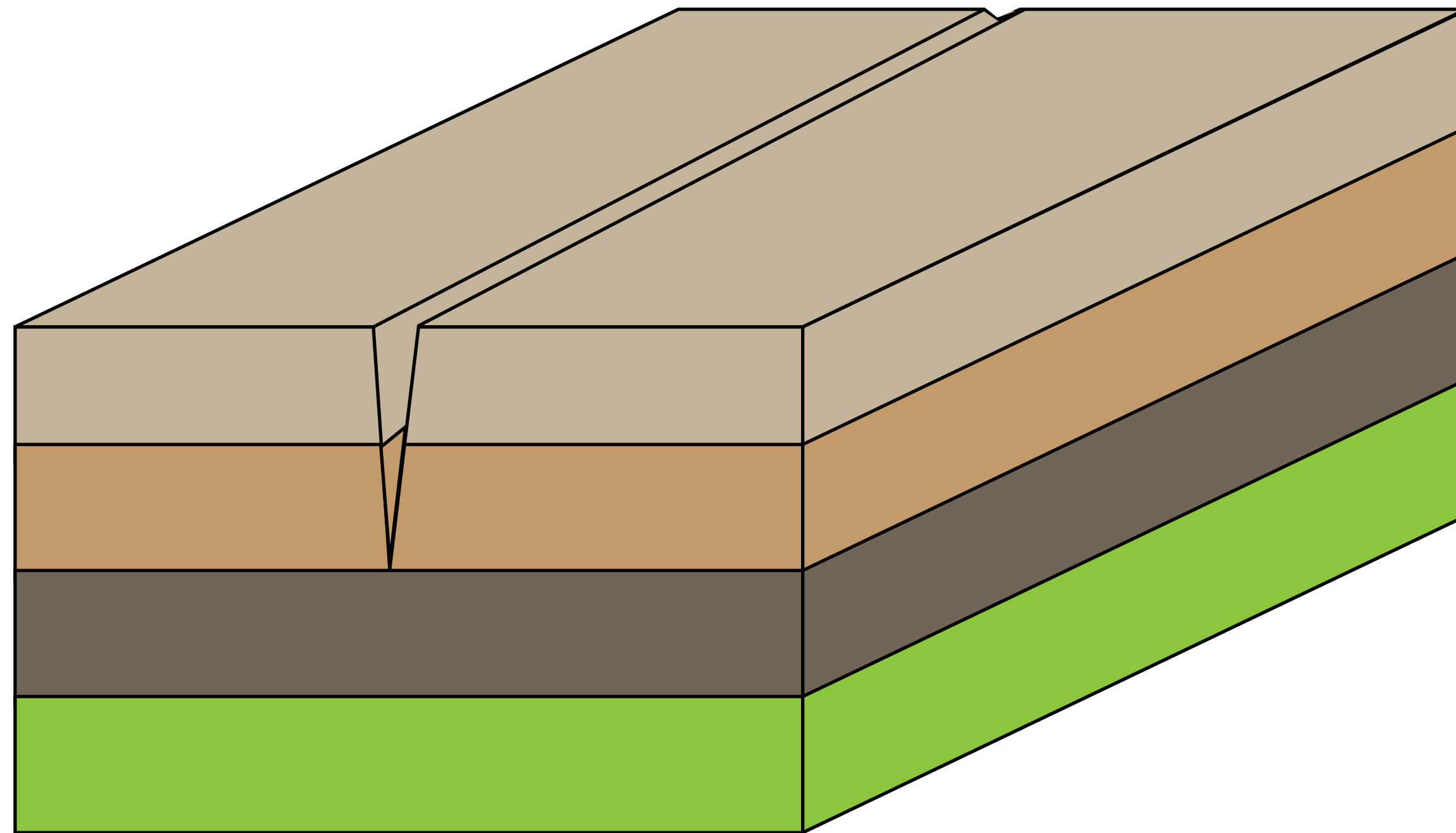


Which layer is oldest?

What is this new feature called?

What might have formed this feature?

Draw on arrows of where  
the largest stress is?



# Dip-slip faults

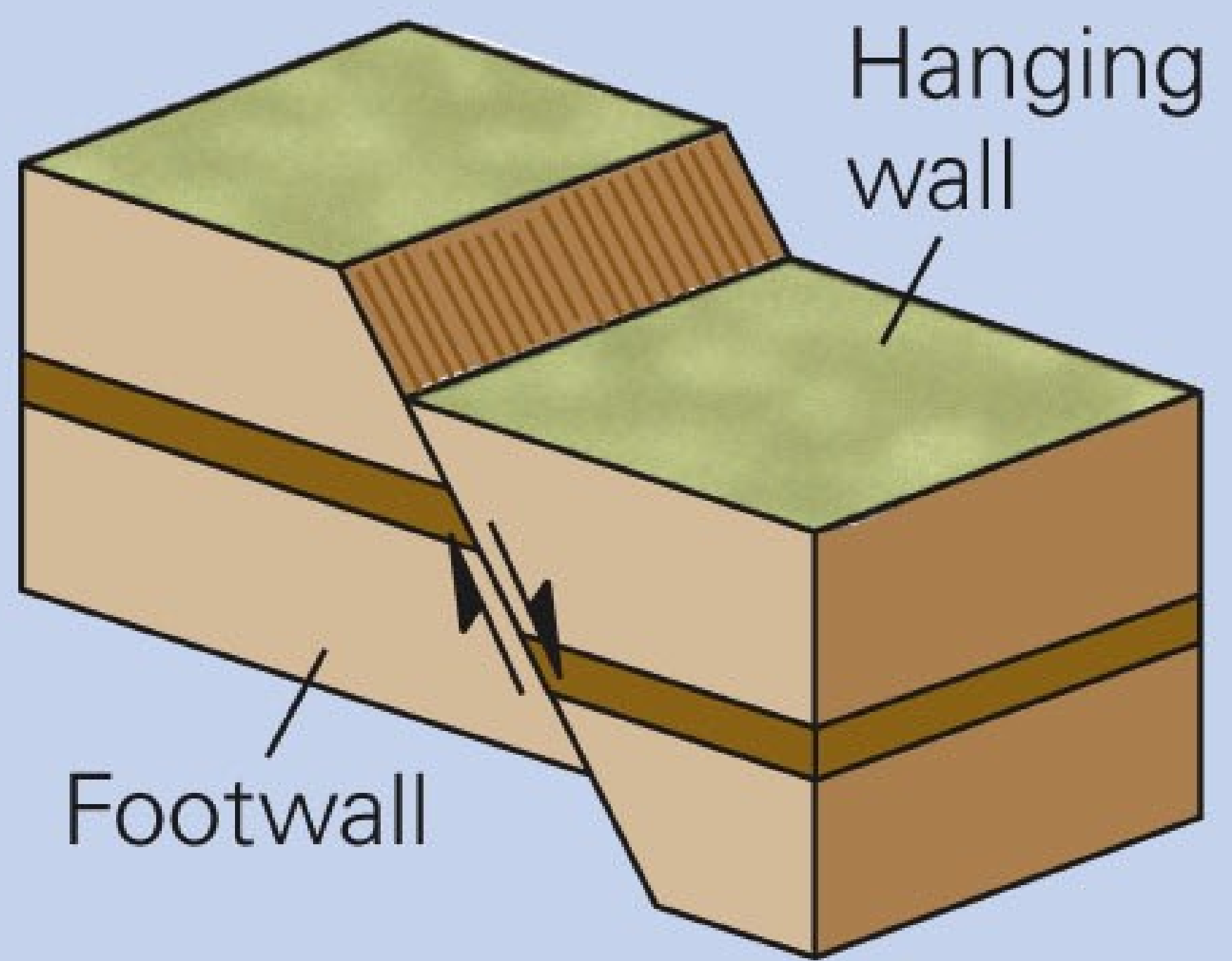
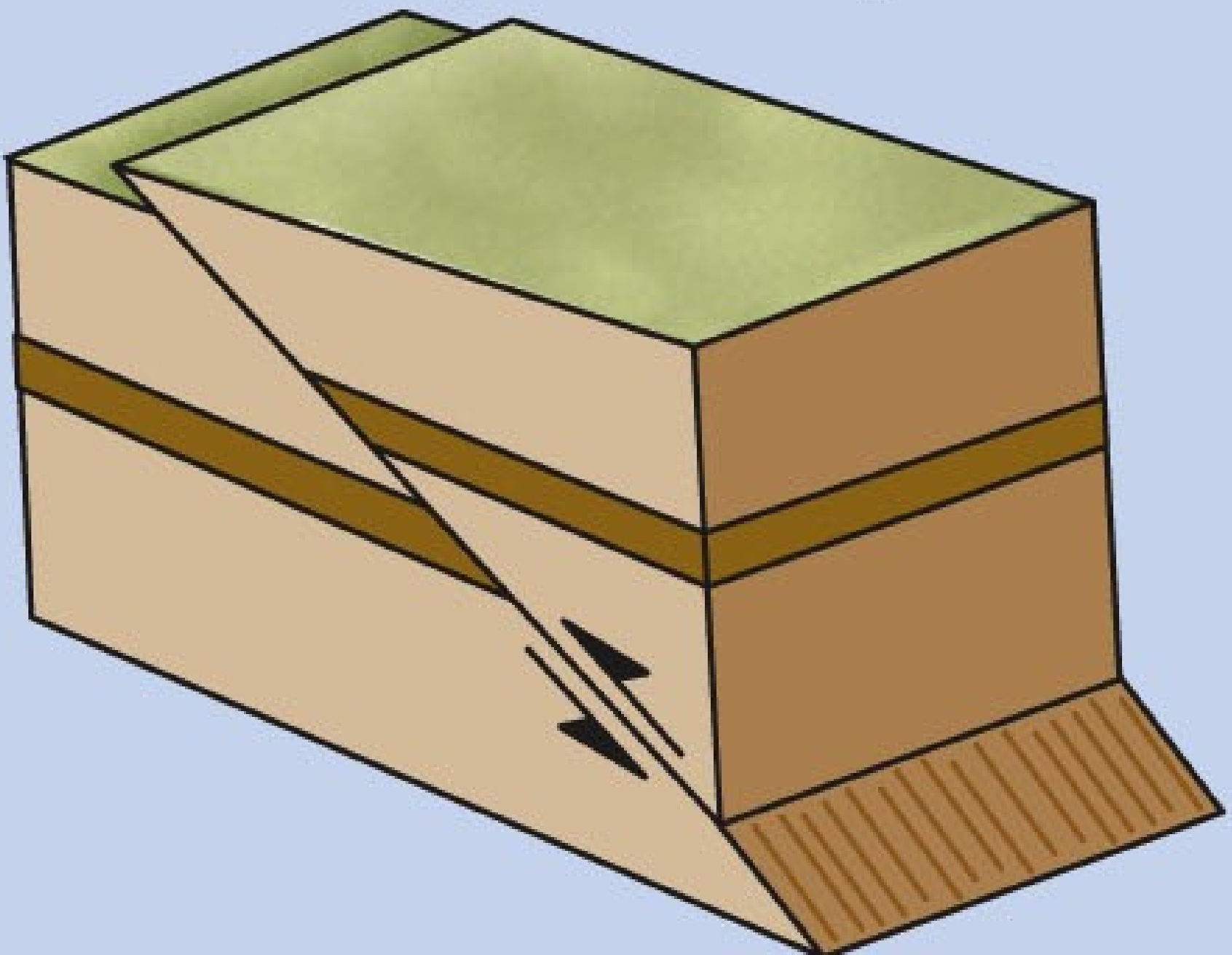
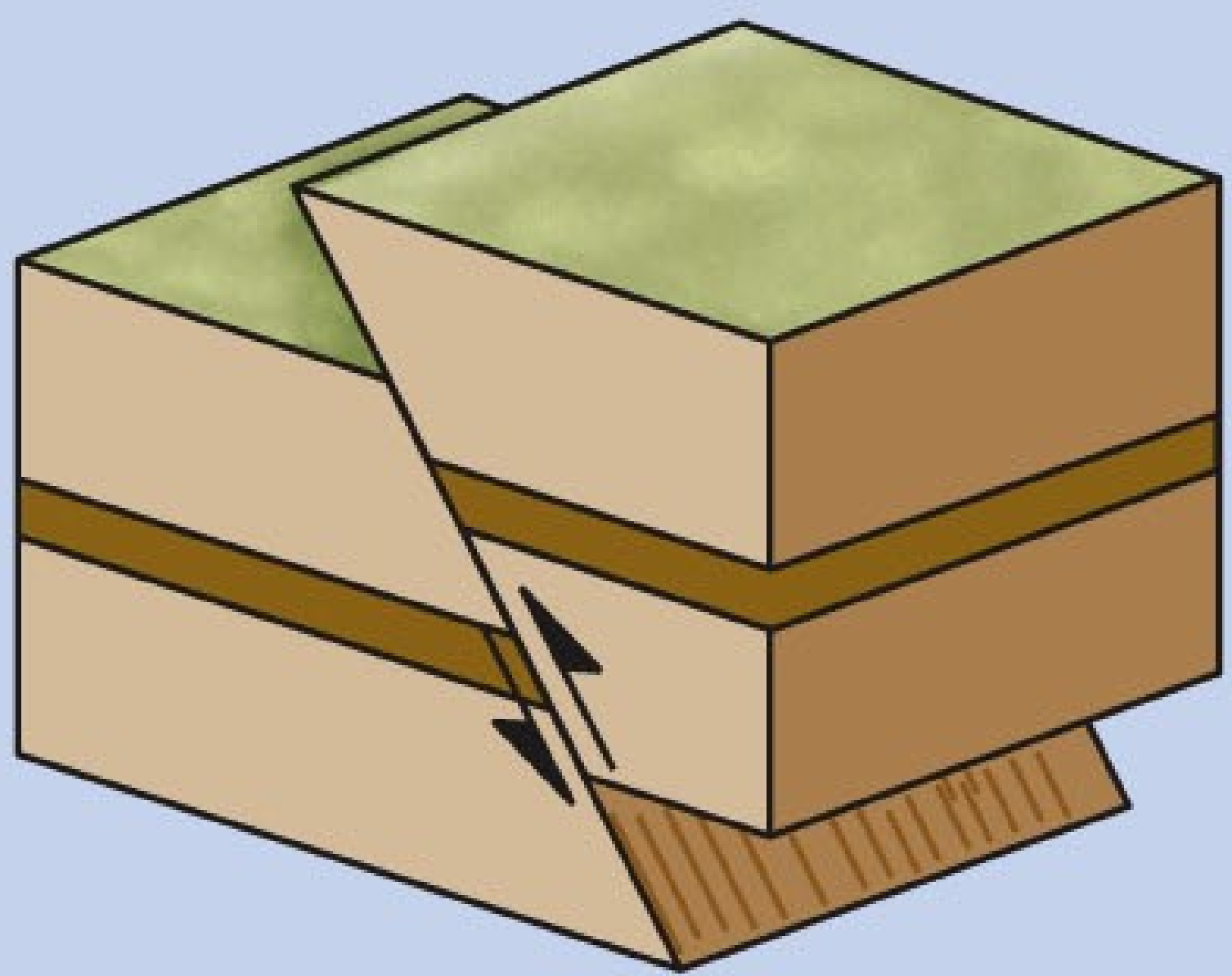
Hanging wall up

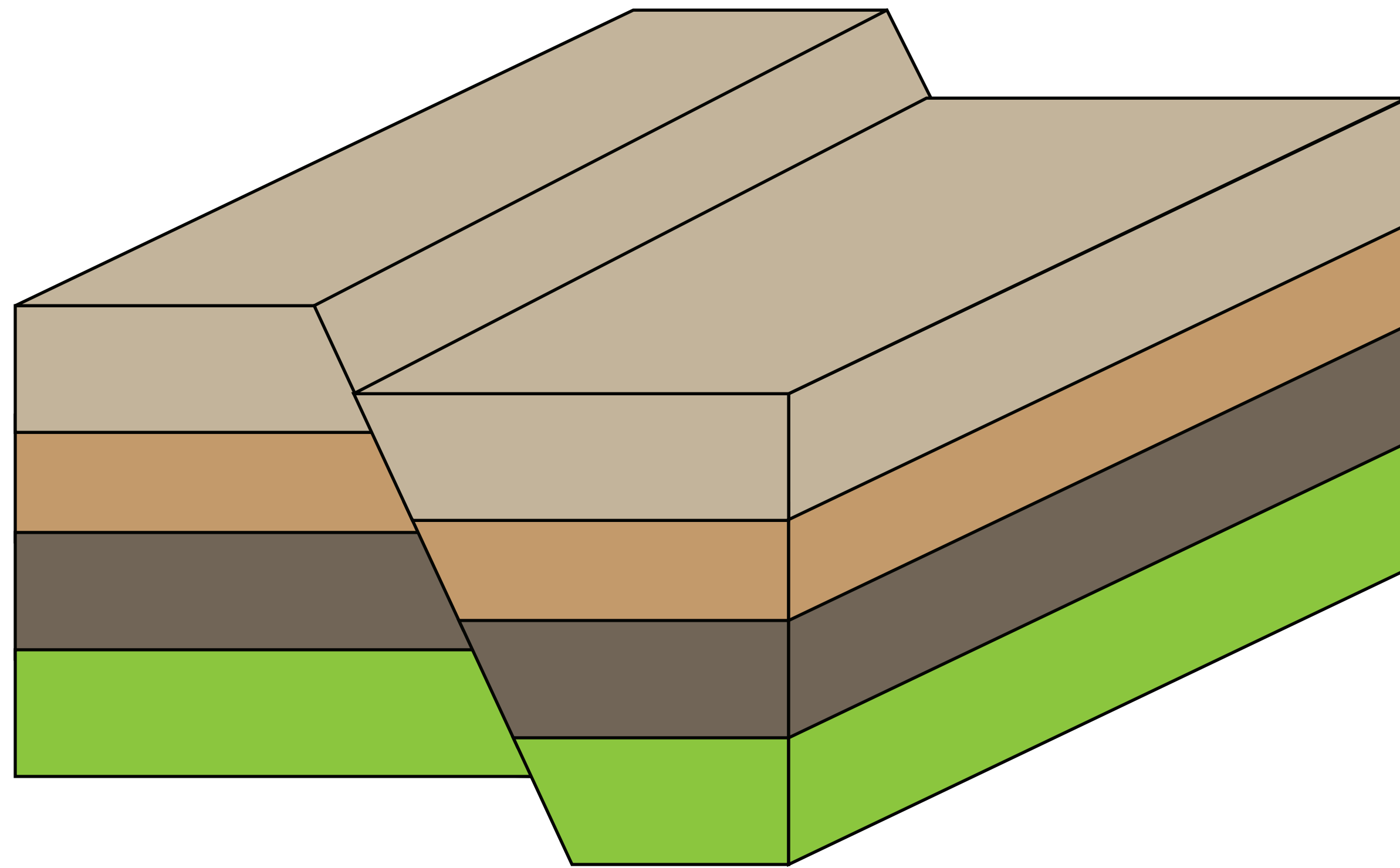
Reverse (steep slope)

Thrust (gentle slope)

Hanging wall down

Normal





Which block is the hanging wall?

Which block is the foot wall?

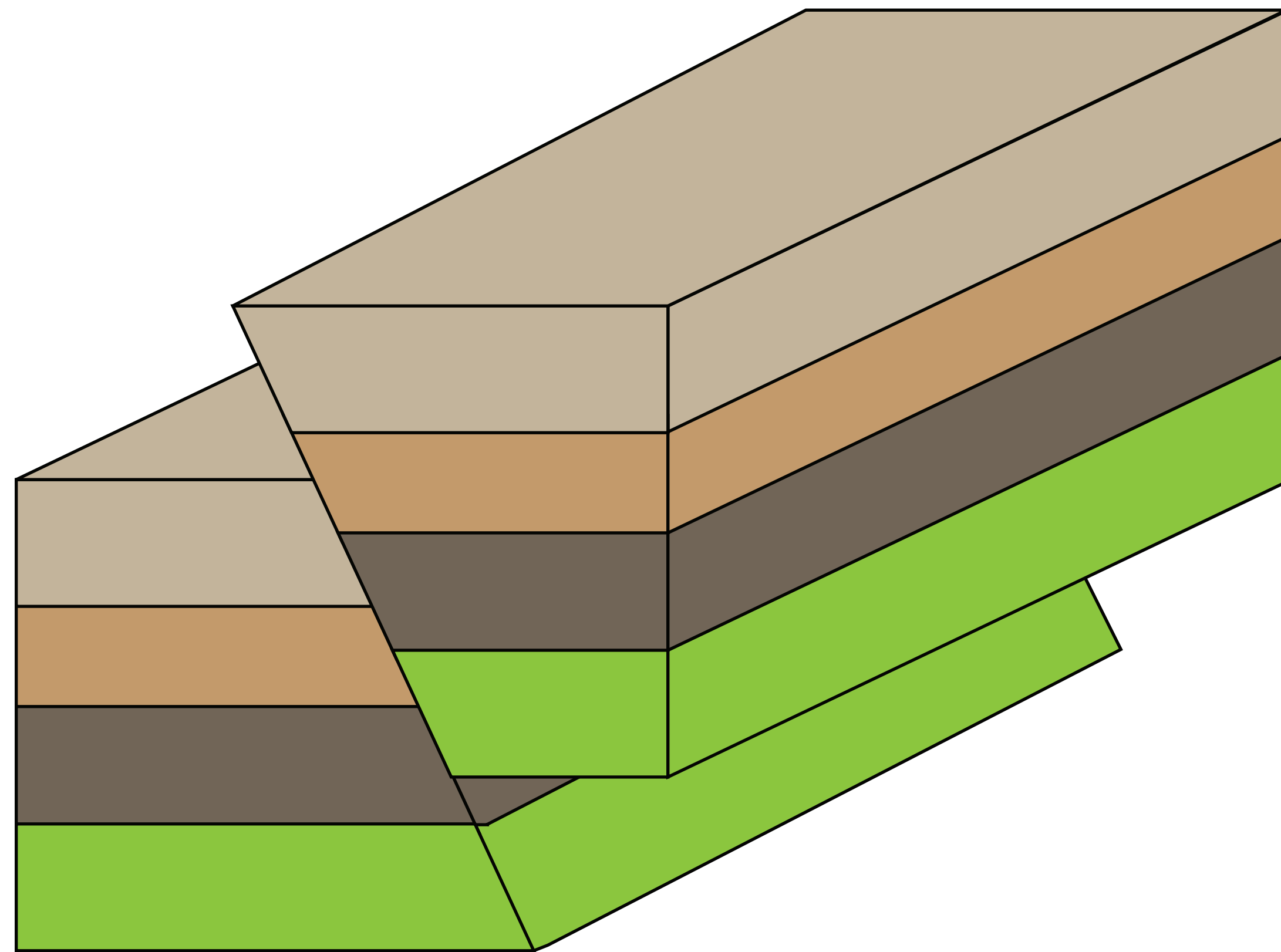
How do you remember this?

What type of fault is this?

Where is the fault scarp?

Draw movement arrows





Which block is the hanging wall?

Which block is the foot wall?

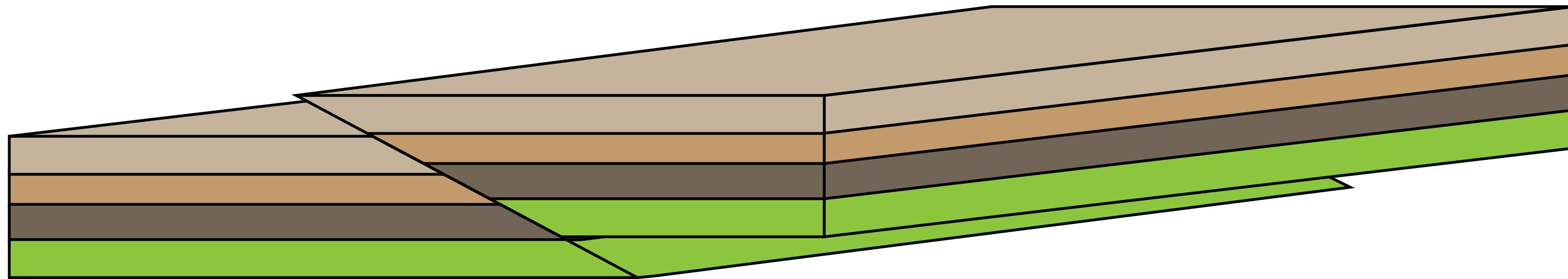
How do you remember this?

What type of fault is this?

Where do we measure the displacement?

Draw movement arrows

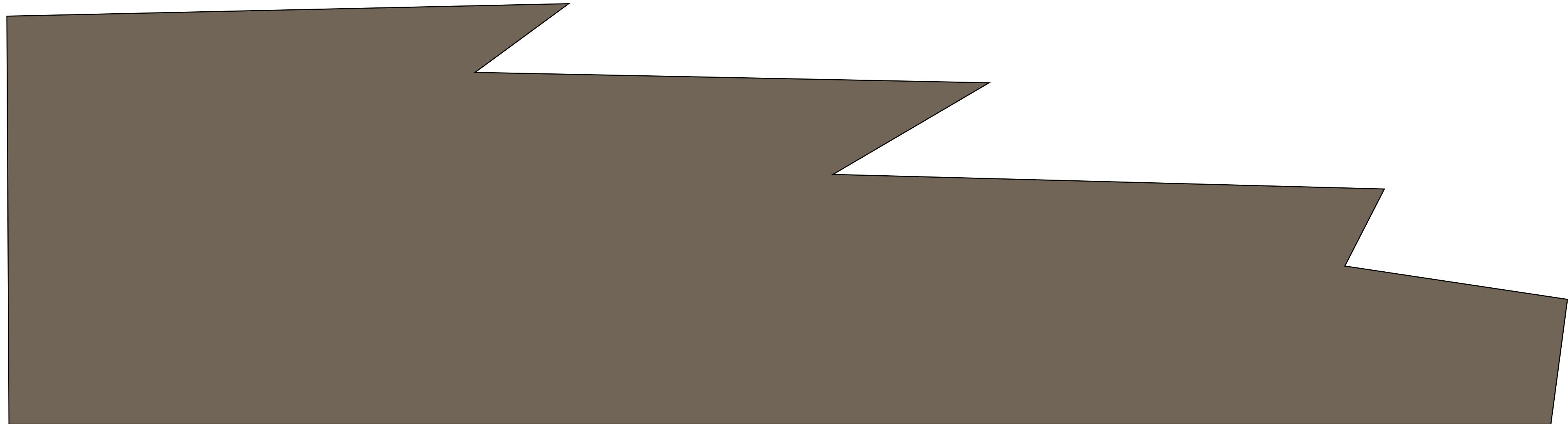
What type of fault is this?



## Polished surfaces called slicken slides



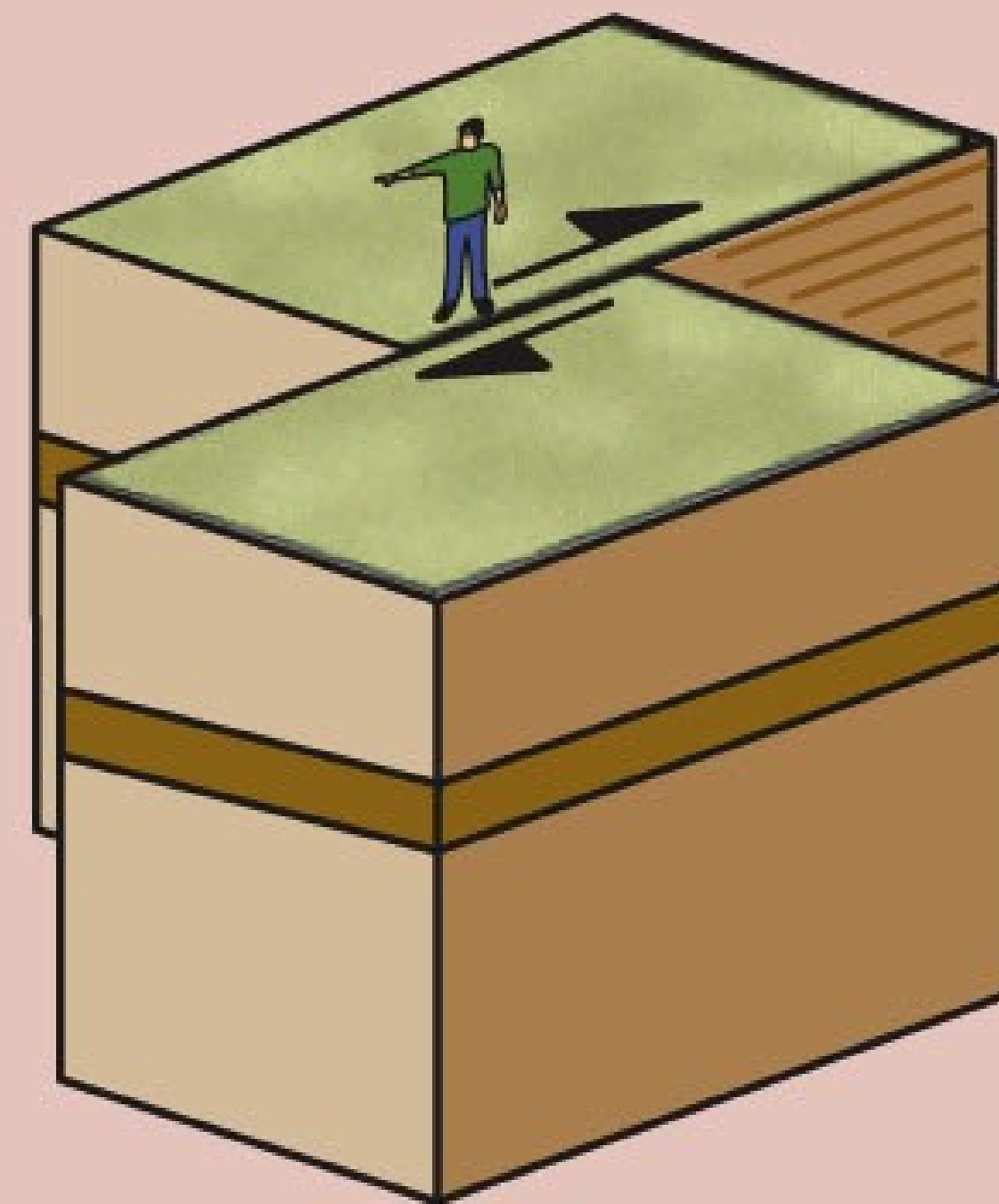
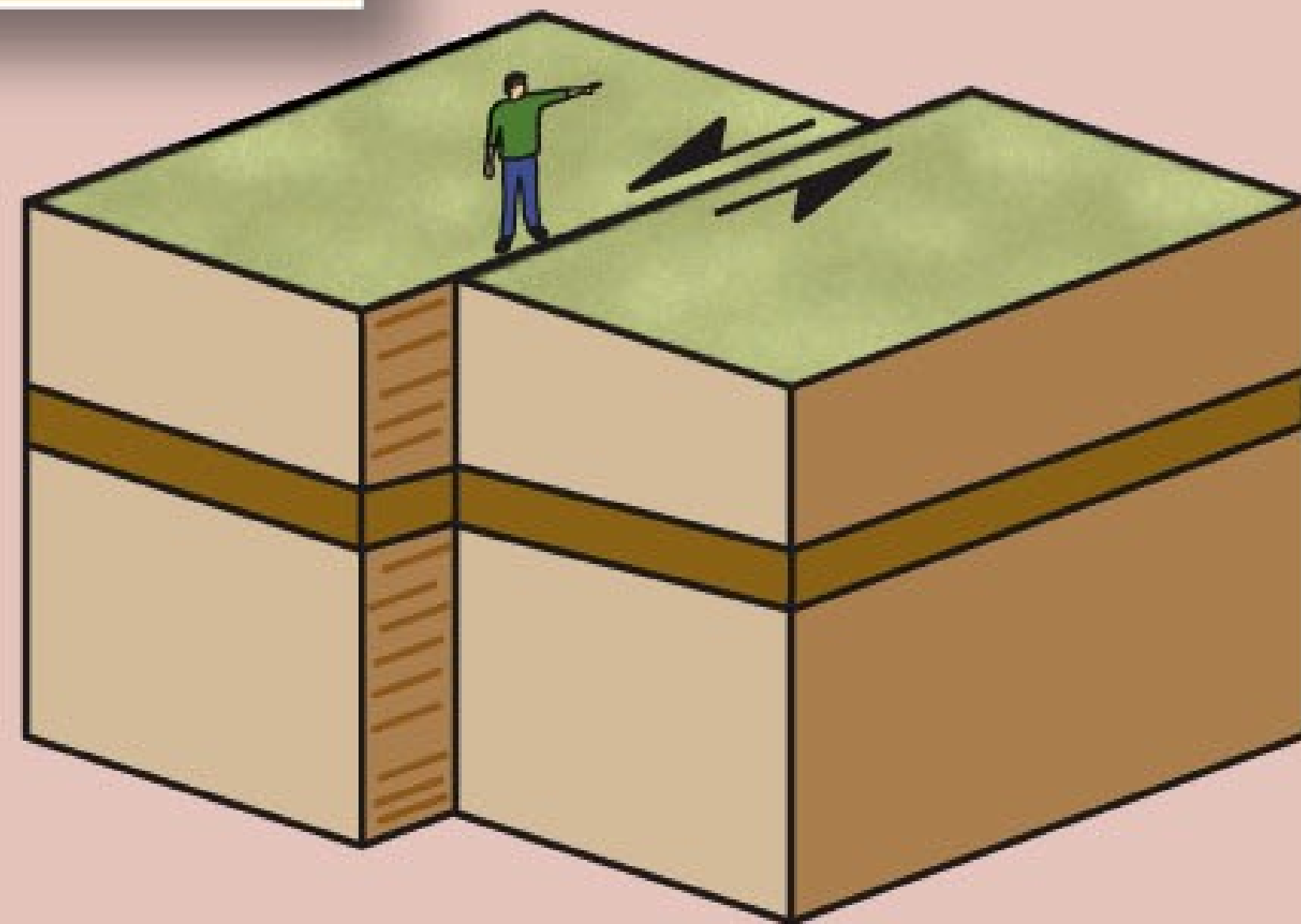
# Petting a hedgehog

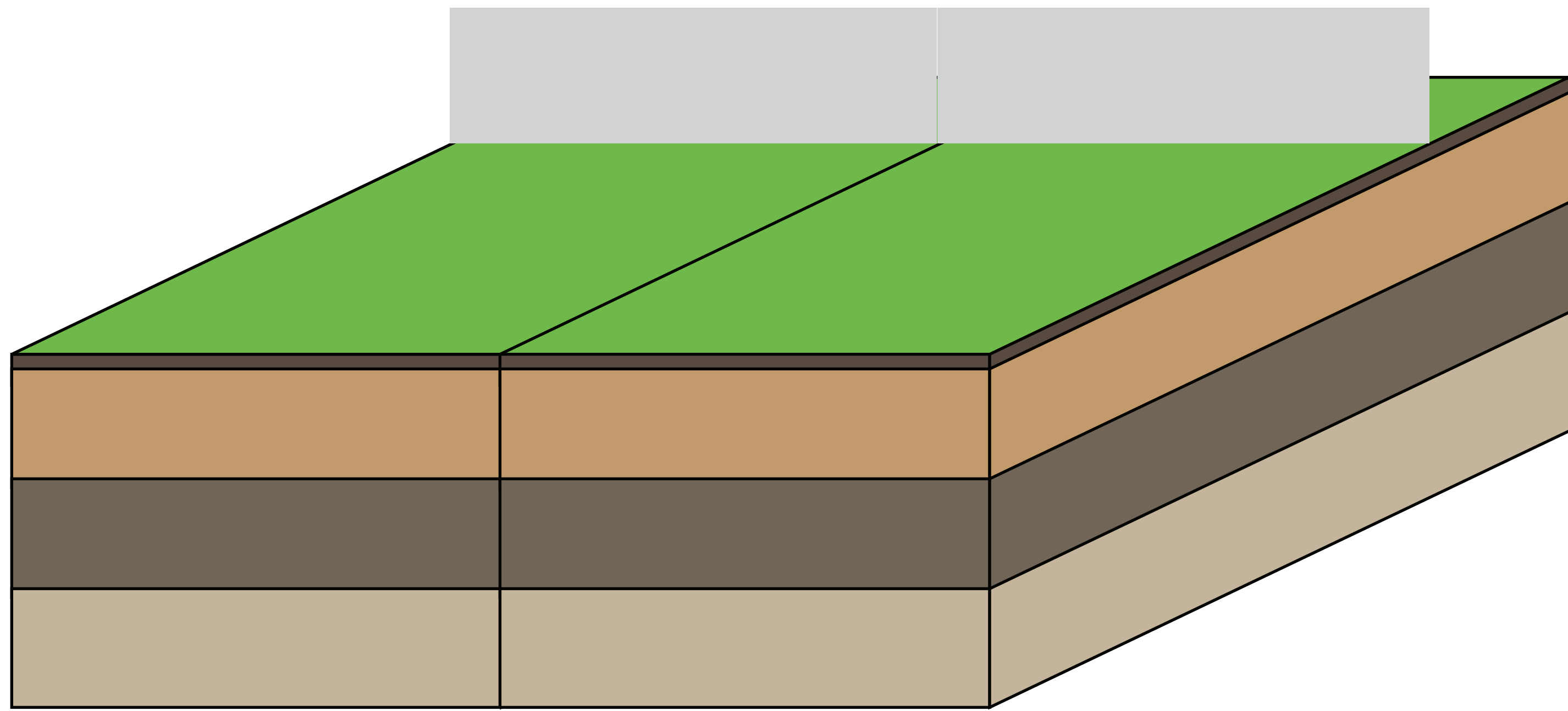


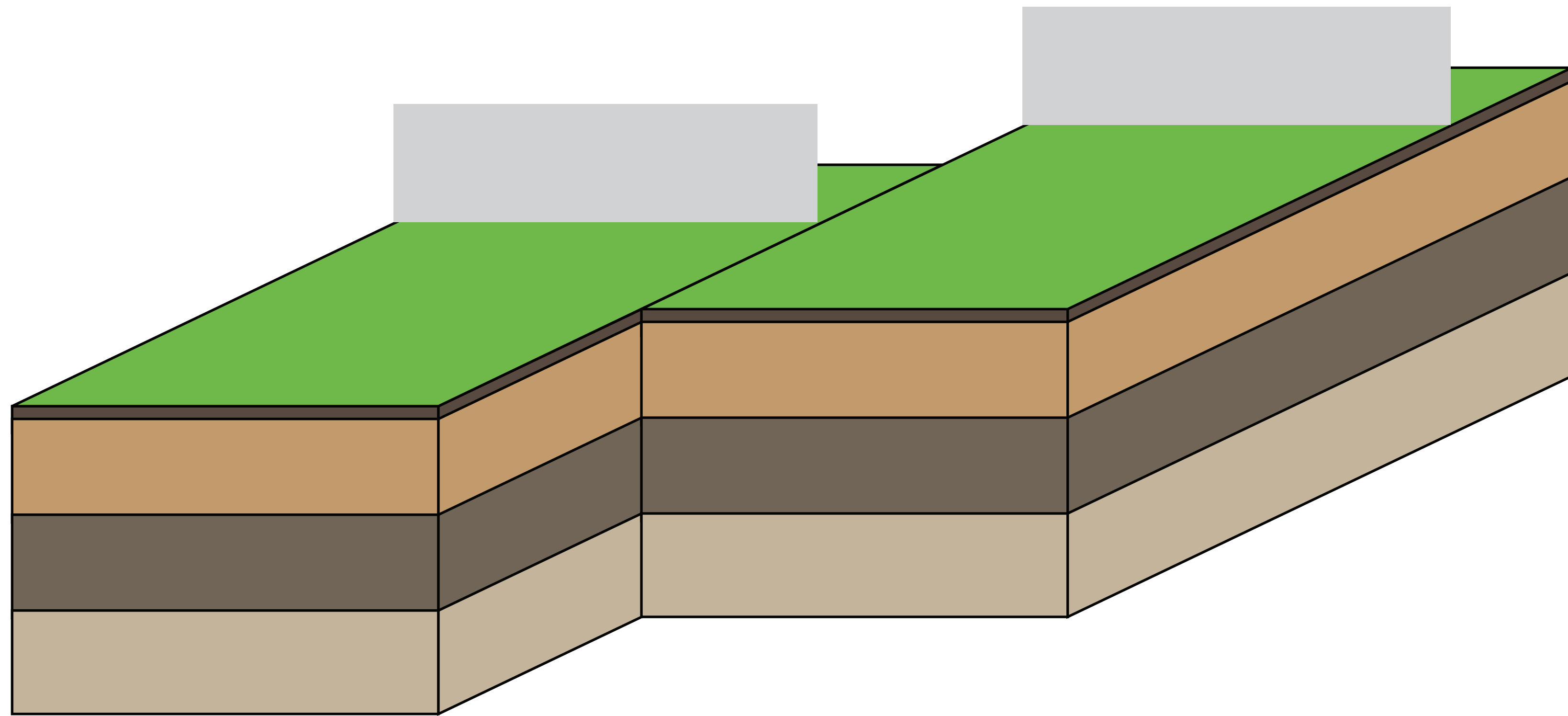
Left-lateral displacement

## Strike-slip faults

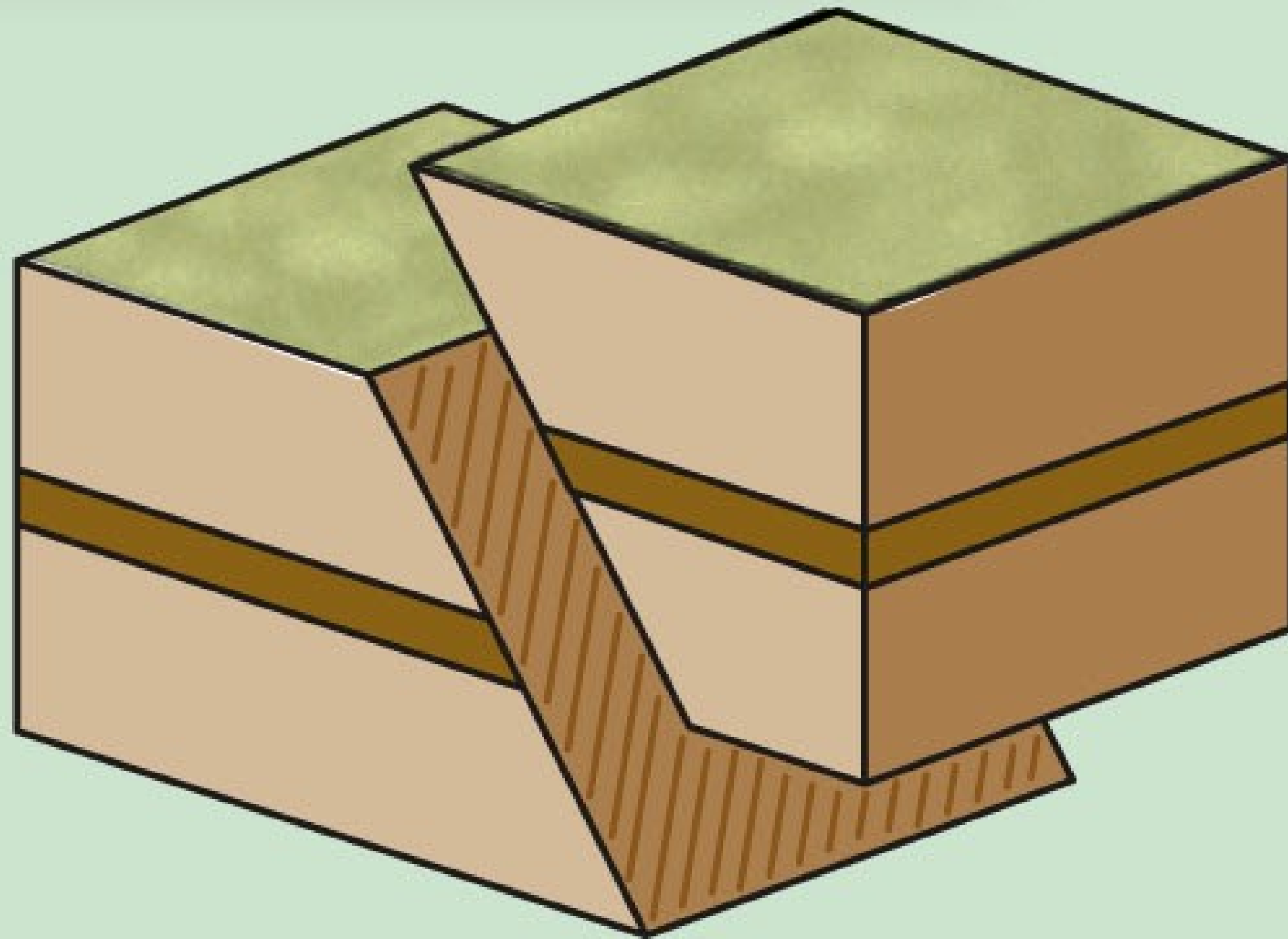
Right-lateral displacement





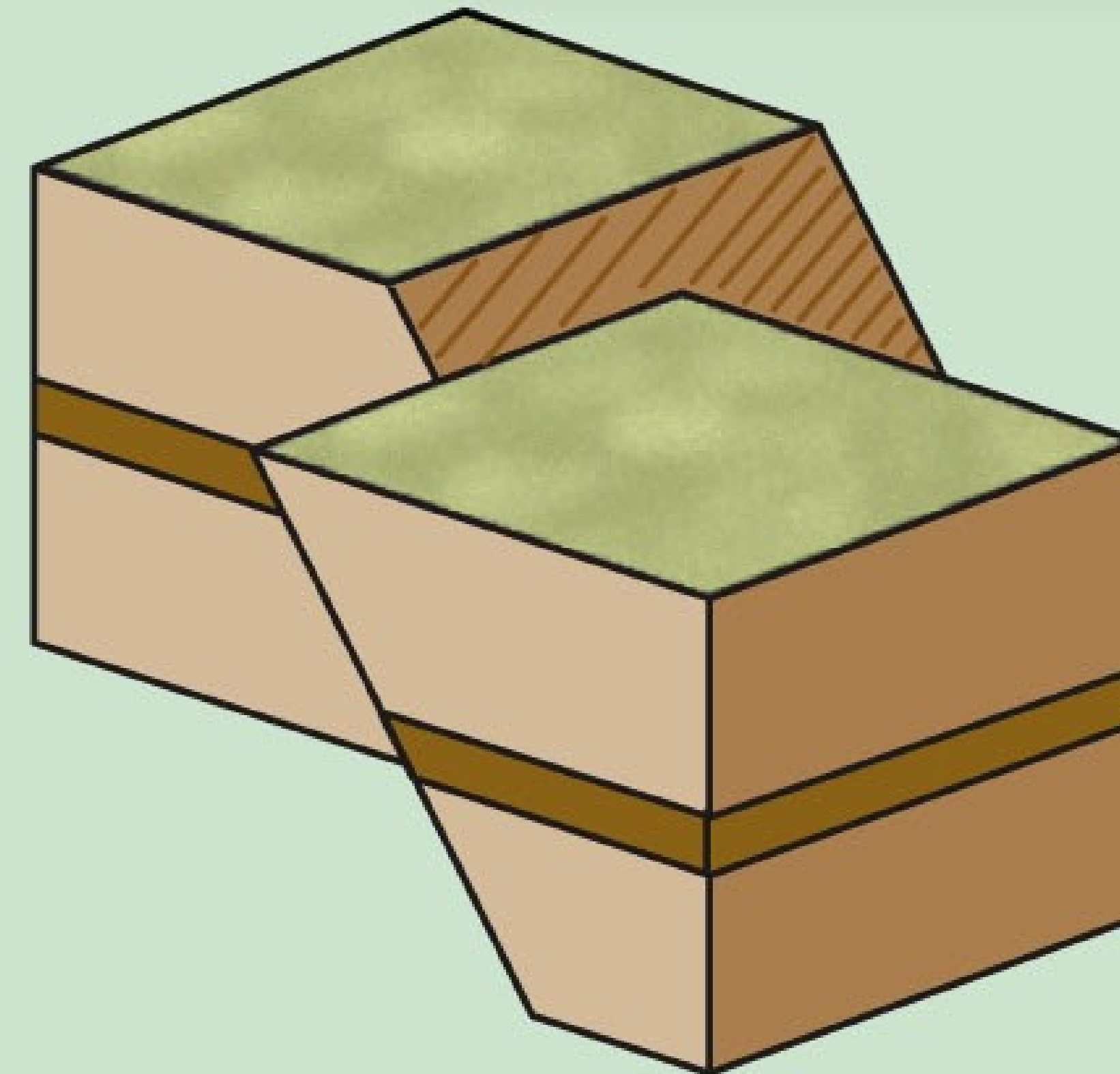


Reverse plus left-lateral displacement

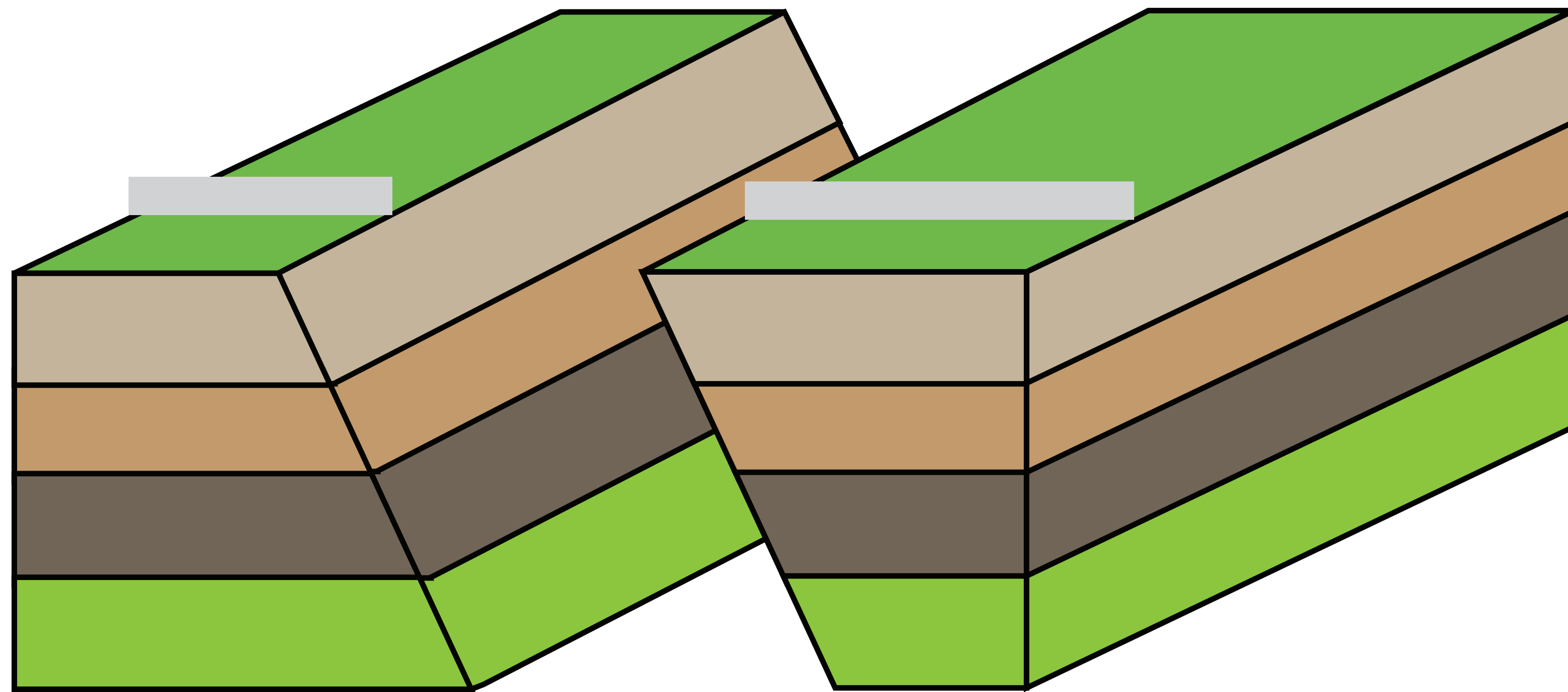


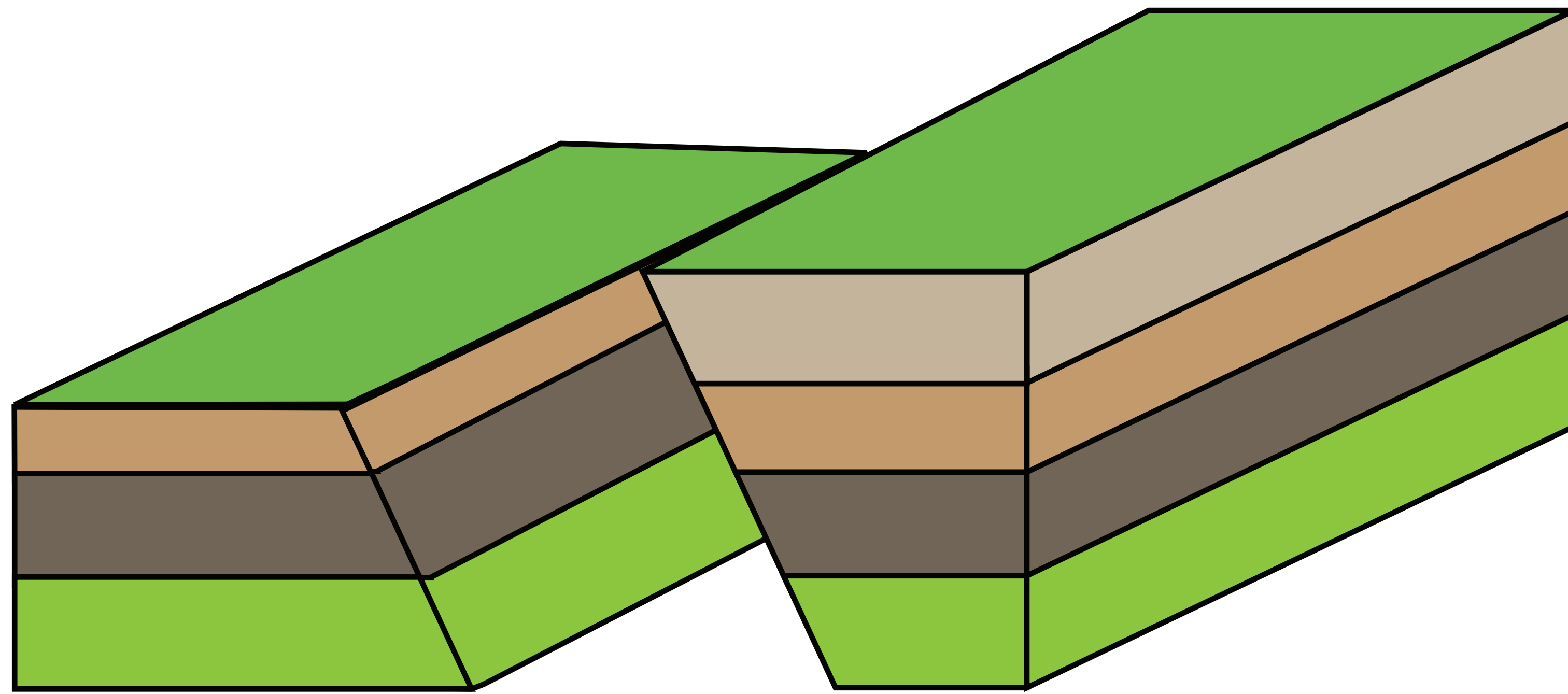
## Oblique-slip faults

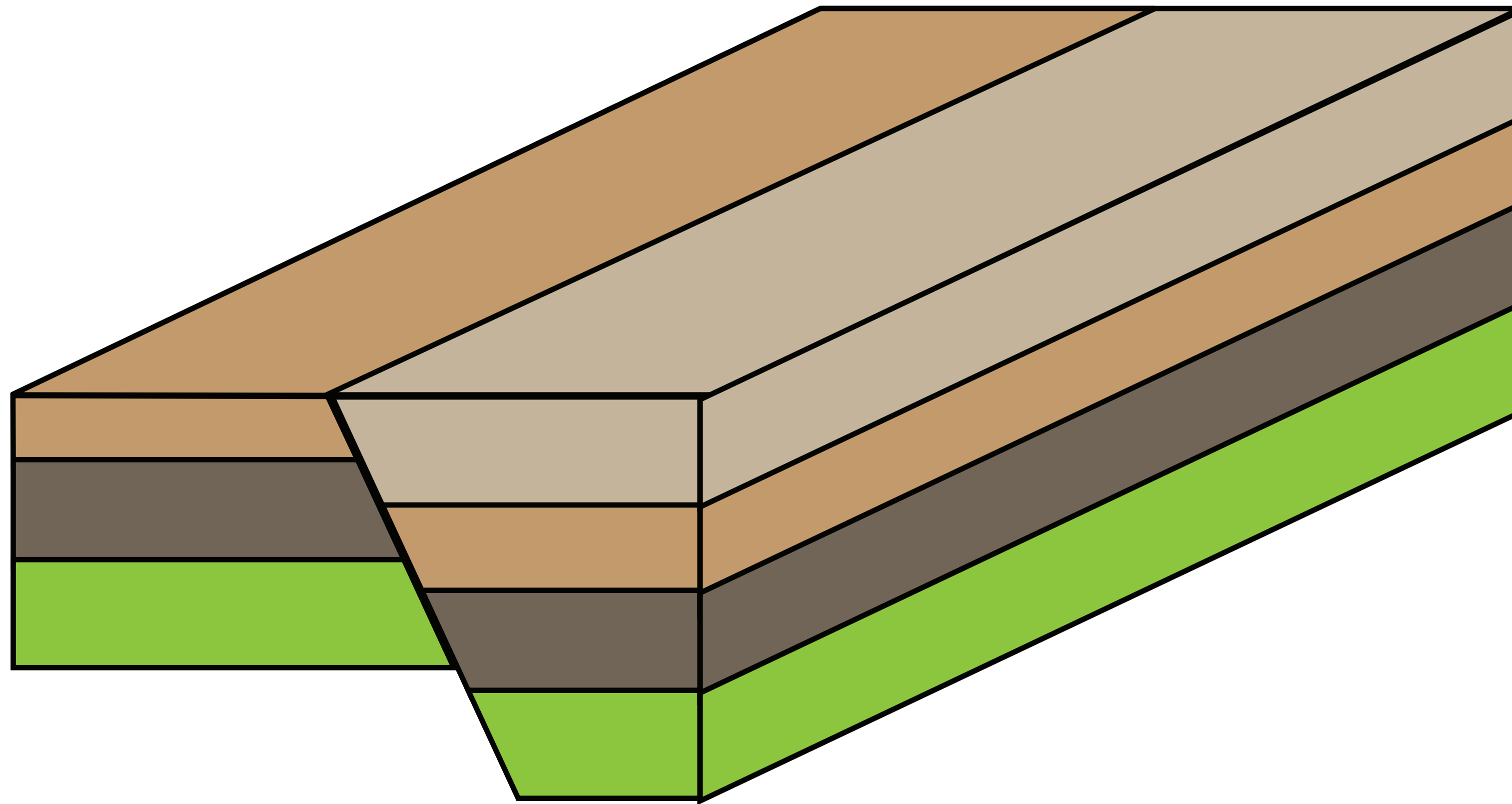
Normal plus right-lateral displacement



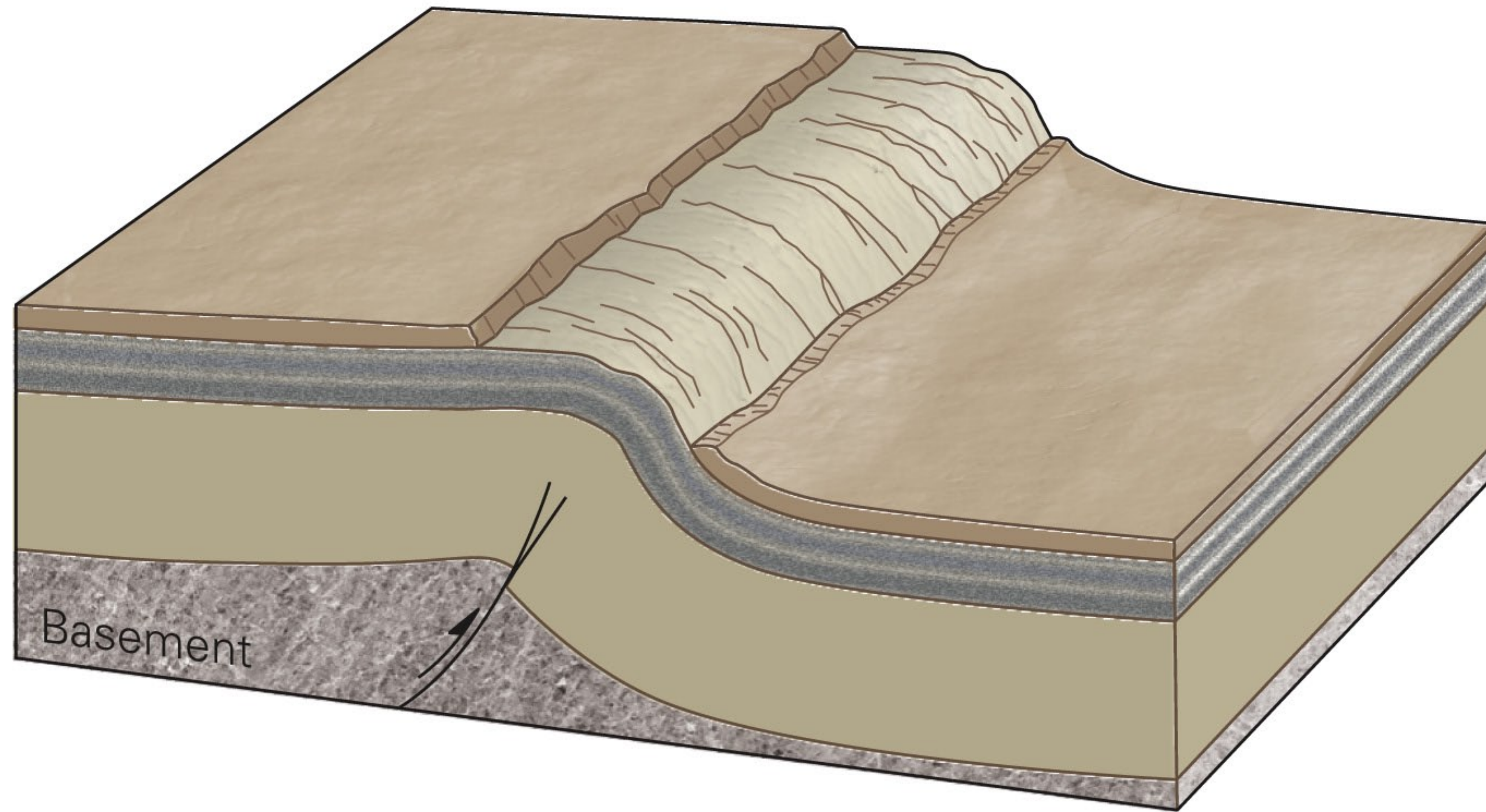






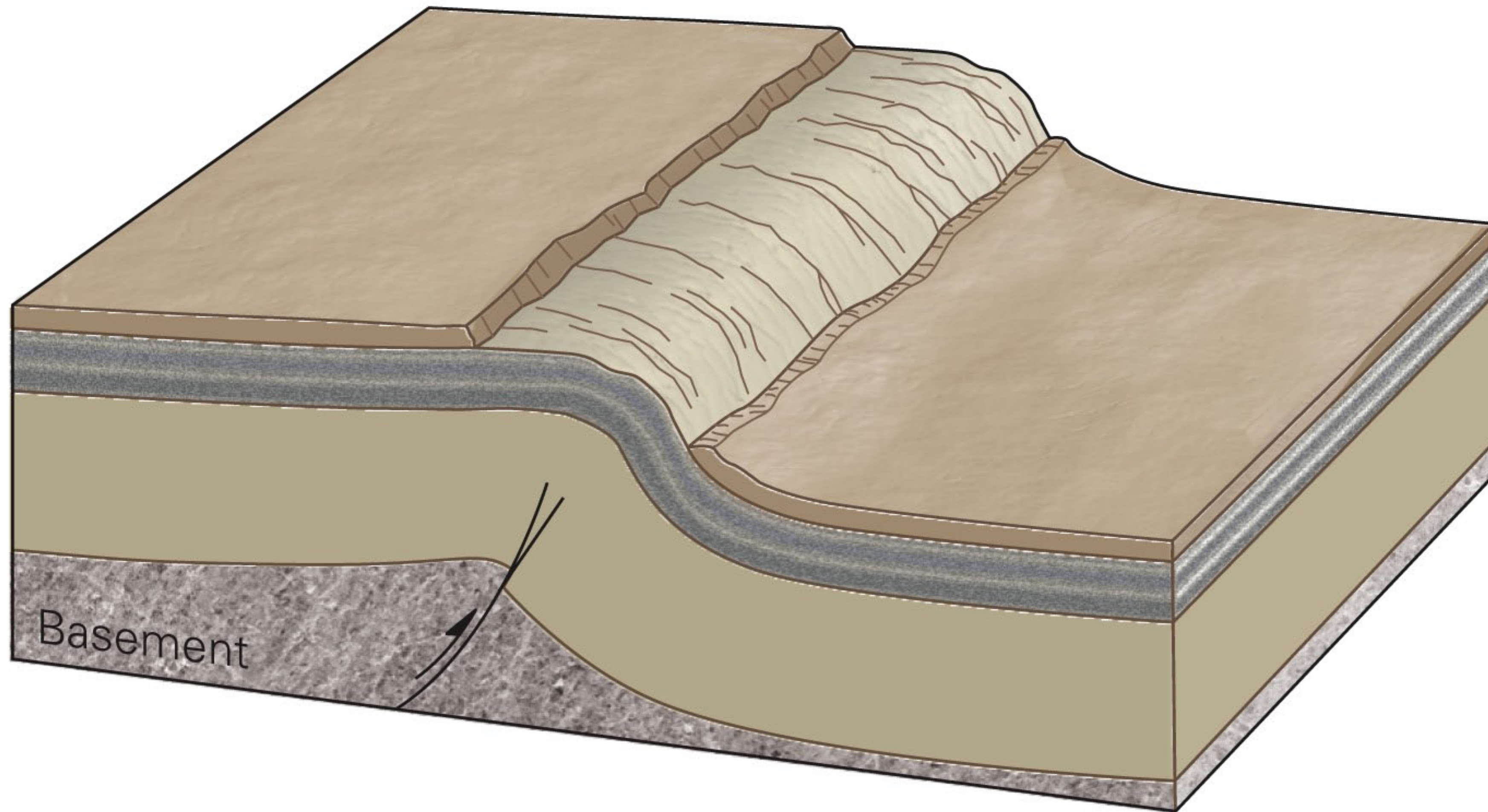


# Monocline



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# Monocline



Which block is the hanging wall?

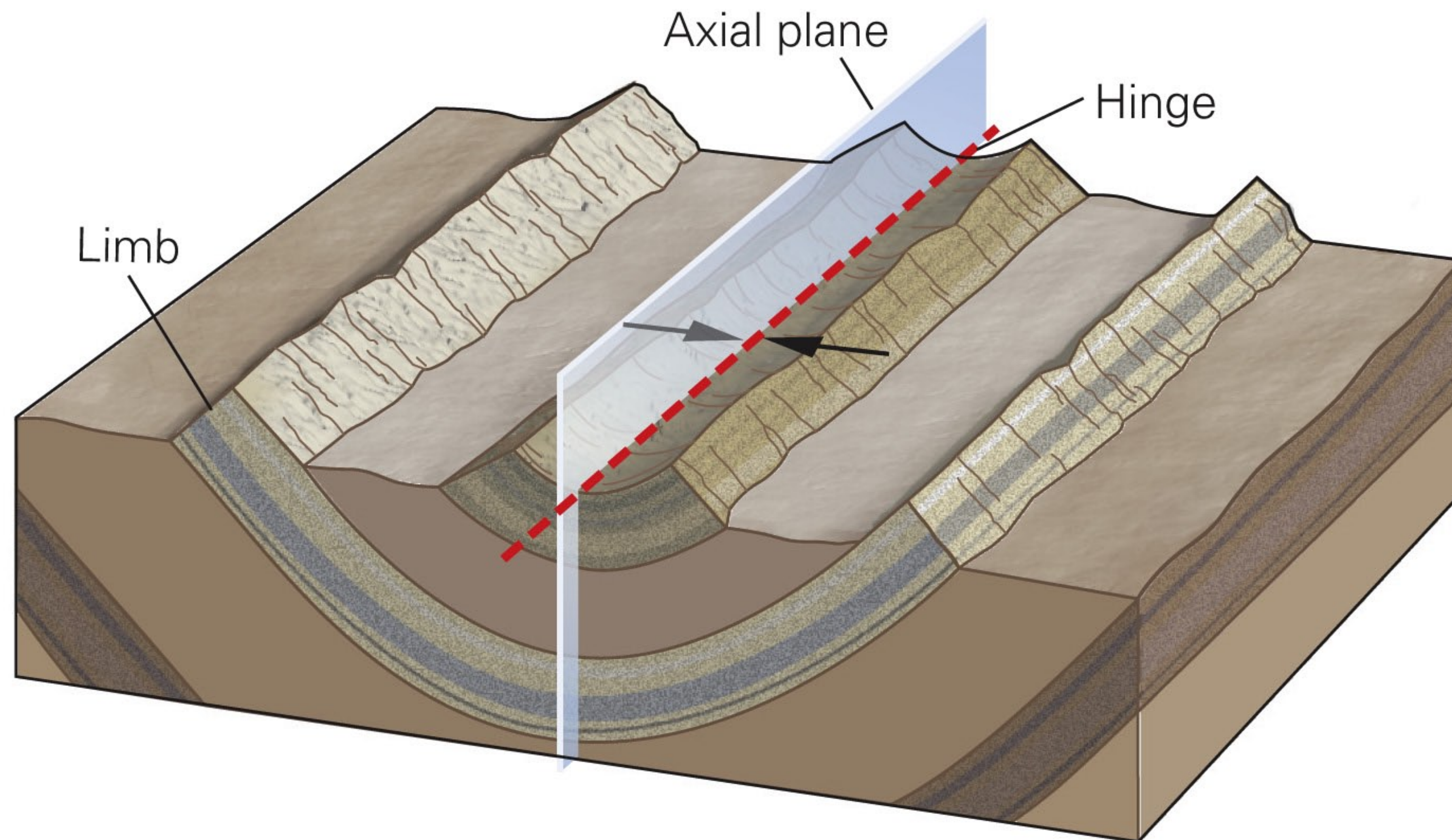
Which block is the foot wall?

How do you remember this?

What type of fault is this?

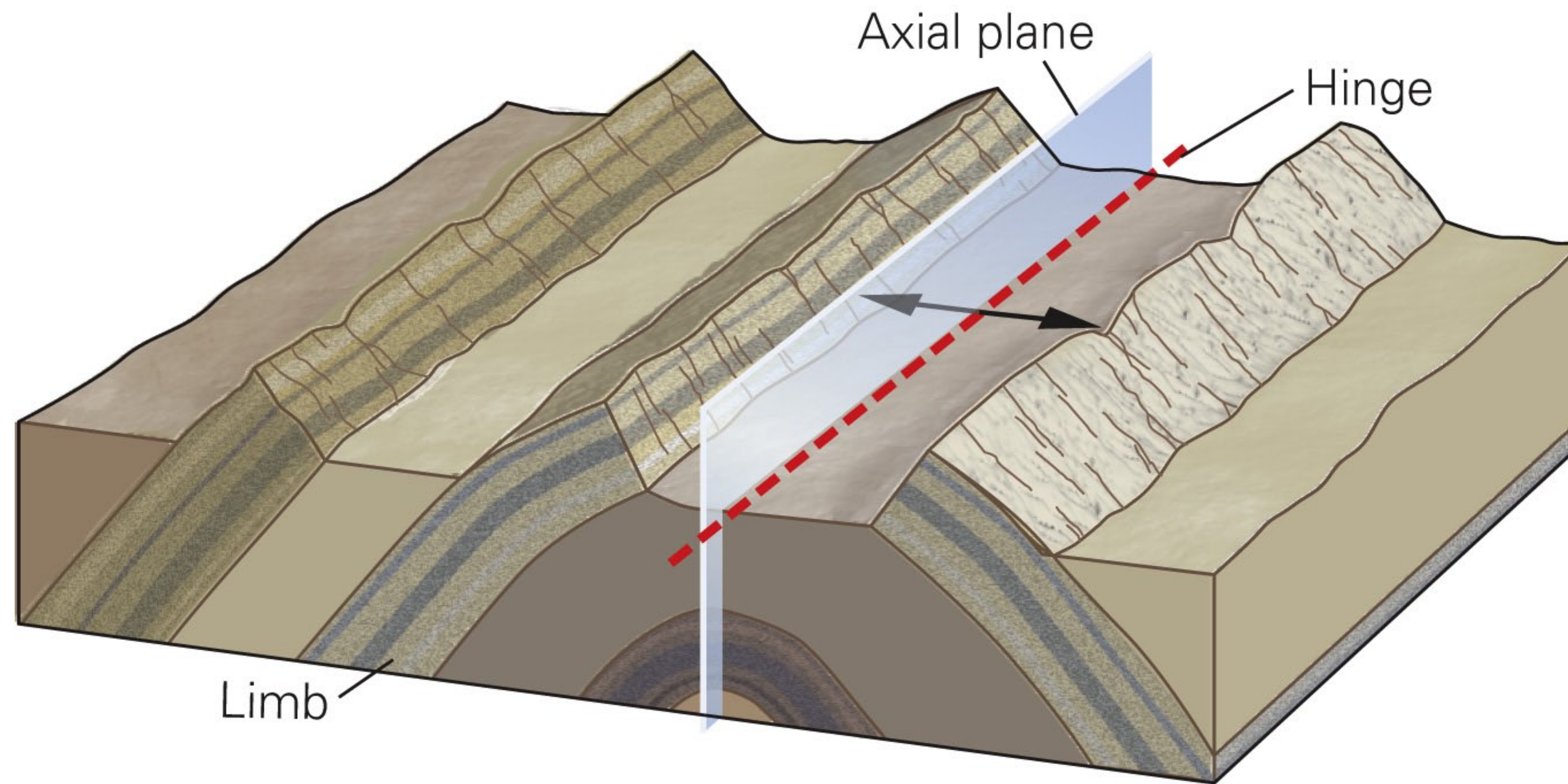
Draw movement arrows

# Syncline

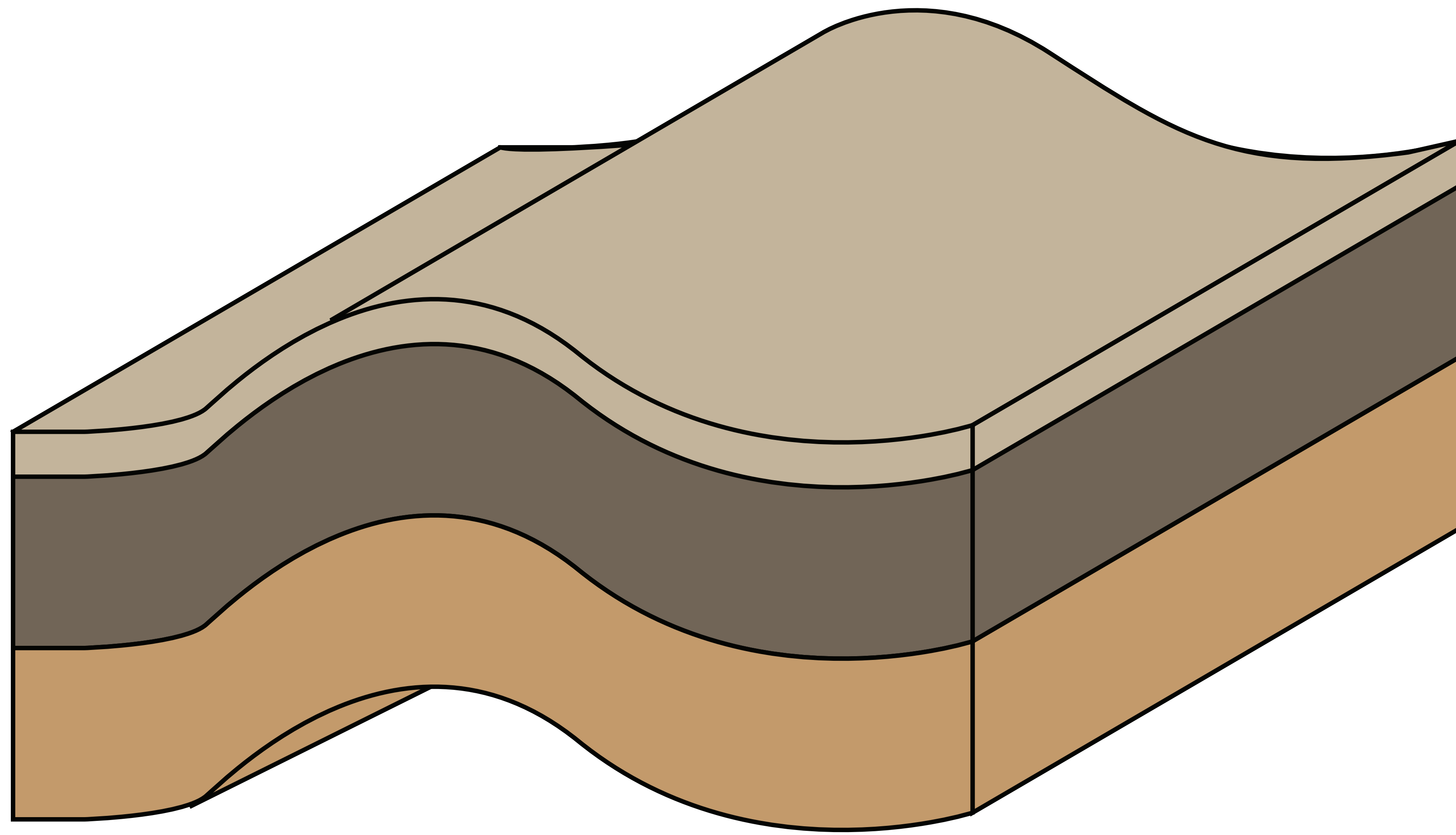


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# Anticline



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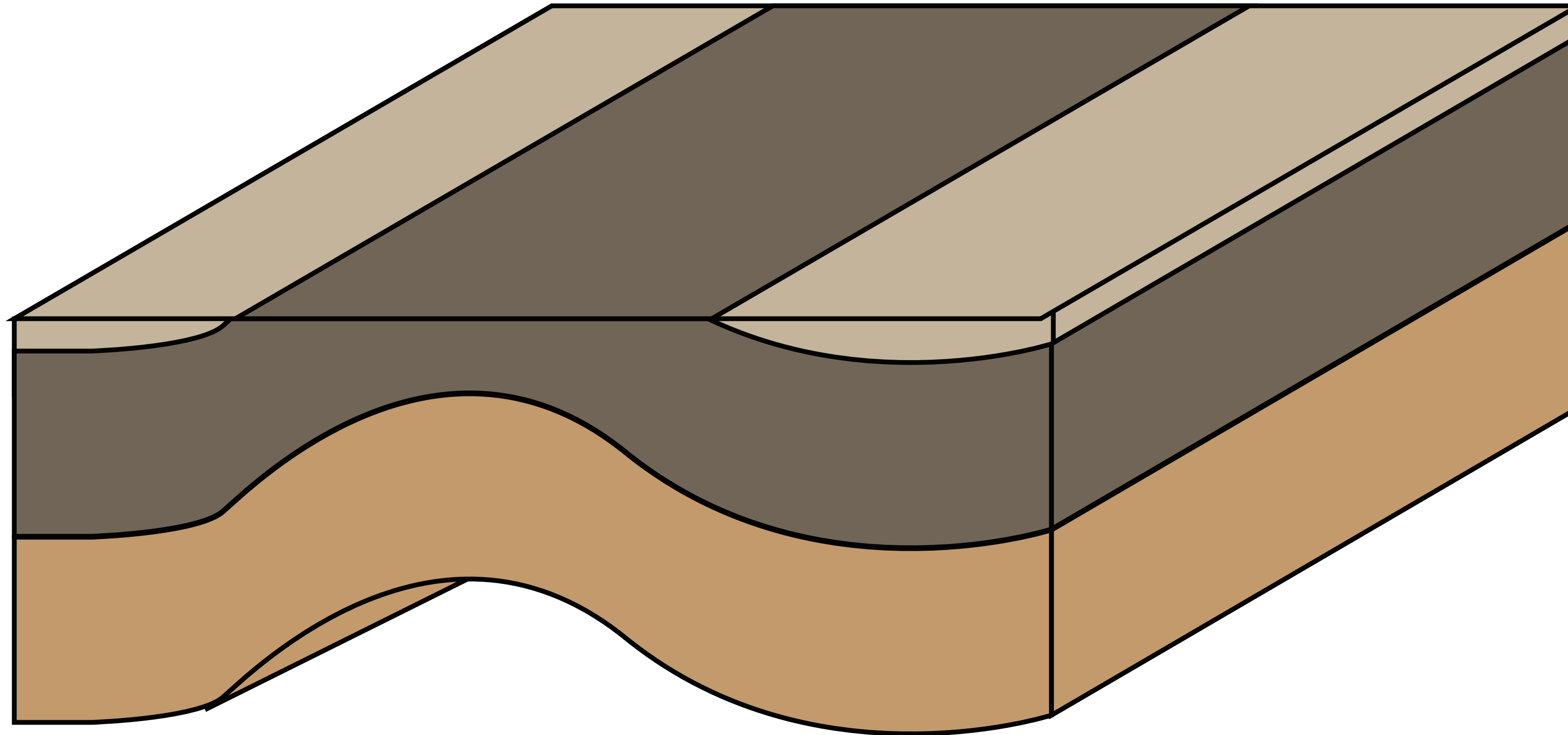
Draw the hinge

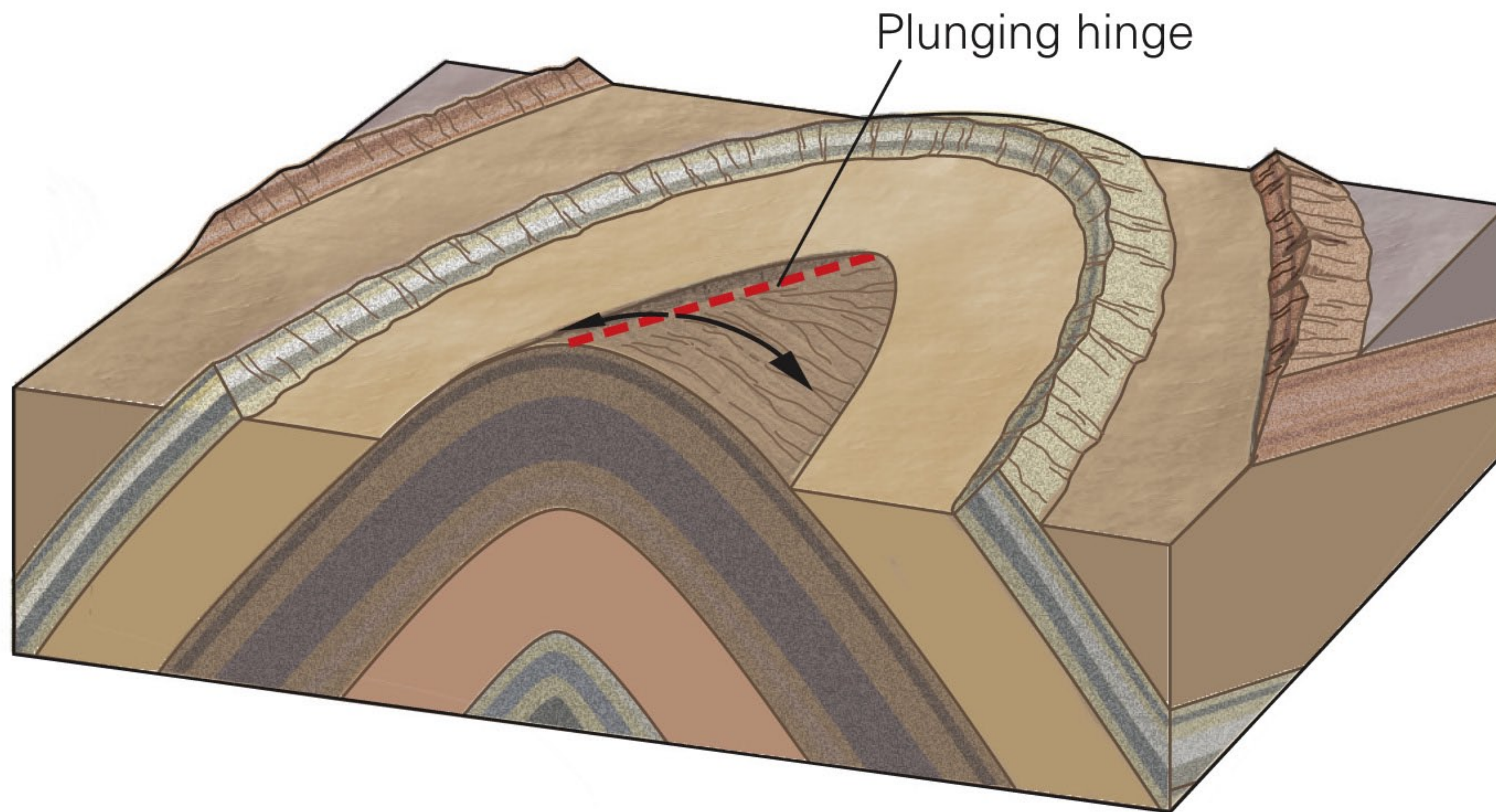
Draw the axial plane

what type of fold is this?

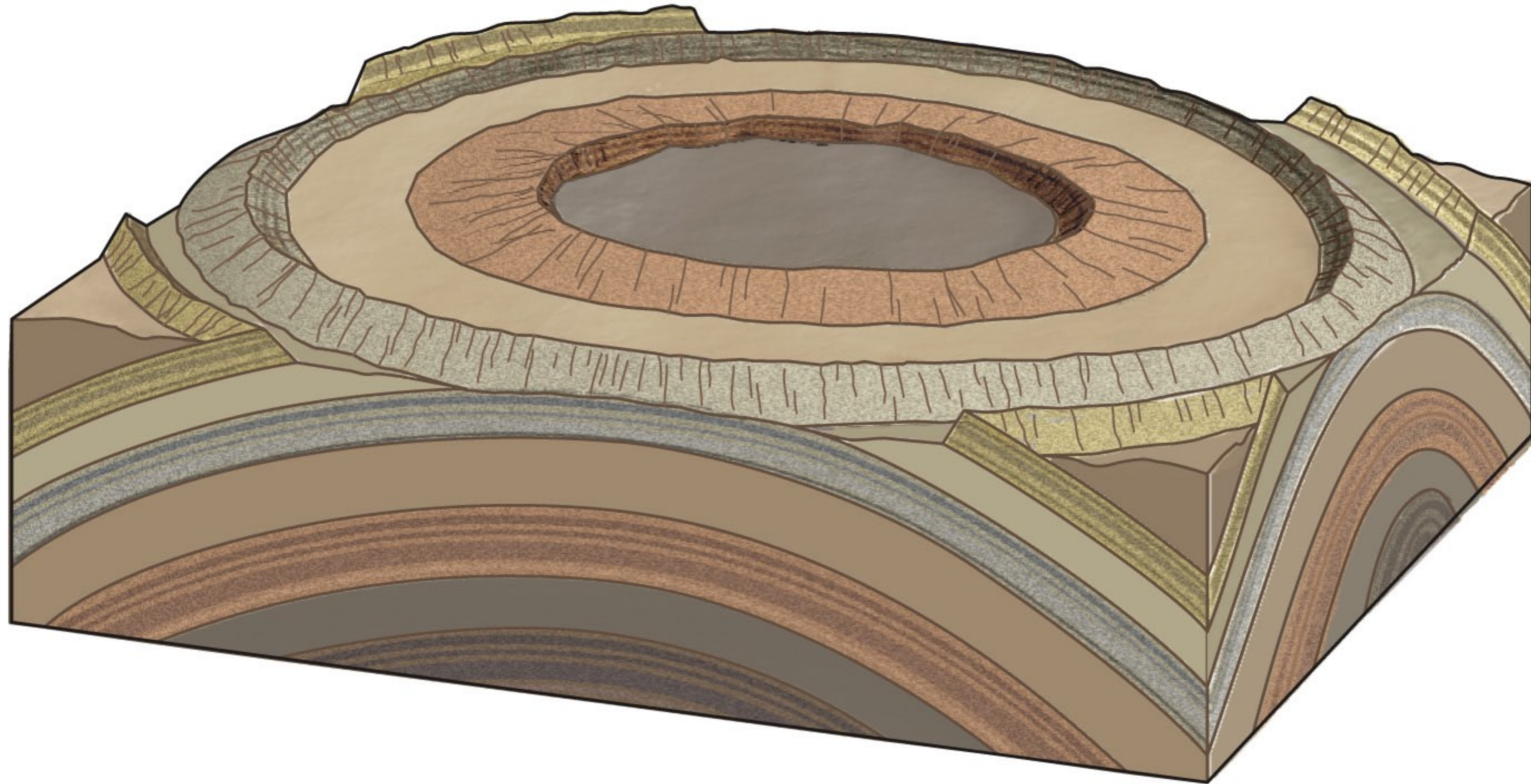


Draw a side





Which layer is oldest?



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Which layer is oldest?

