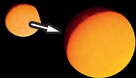


# Earth's puzzling superplumes

Two huge and mysterious blobs buried deep inside the Earth may be the remains of planet *Theia*, which is believed to have slammed into Earth 4.5 billion years ago, creating the moon

## COSMIC COLLISION

Theia



Earth

1

Impact known as  
“*Big Whack*”



2

Matter from  
both  
planets  
thrown  
into  
space



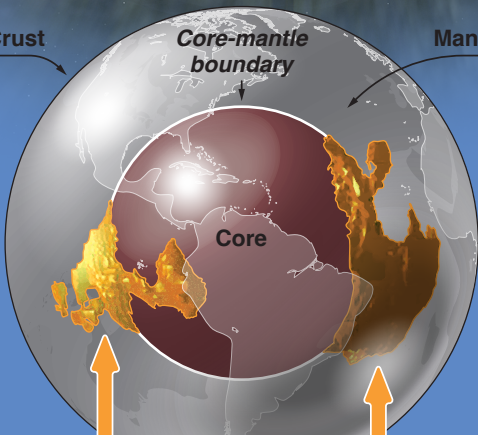
3

## LARGE LOW-SHEAR-VELOCITY PROVINCE (LLSVP, aka *superplume*)

Crust

Core-mantle  
boundary

Mantle



4

Some matter  
rejoins Earth



Some becomes  
our moon

5

### Pacific LLSVP

### Africa LLSVP

Both lie **3,000km** below Earth's crust and are denser than mantle around them – possibly due to high levels of iron – similar to moon rocks