# Journeys to the Centers of the Earths



Matthew C. Brennan



Everest

Top of the

stratosphere

The crust is much thicker below the continents

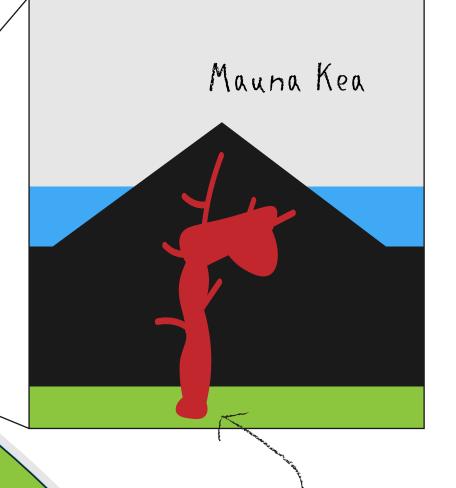
continental crust (solid felsic rock)

Mineral changes seprate
the upper mantle, transition zone,
and lower mantle

mantle (solid ultramafic rock)

outer core (liquid iron alloy)

inner core (solid iron alloy)



Magma (liquid rock)
is only found
beneath volcanoes

oceanic crust (solid mafic rock)

core begins at depth of 2891 km (1796 miles)

## The Underdark

(Dungeons & Dragons, 1986)

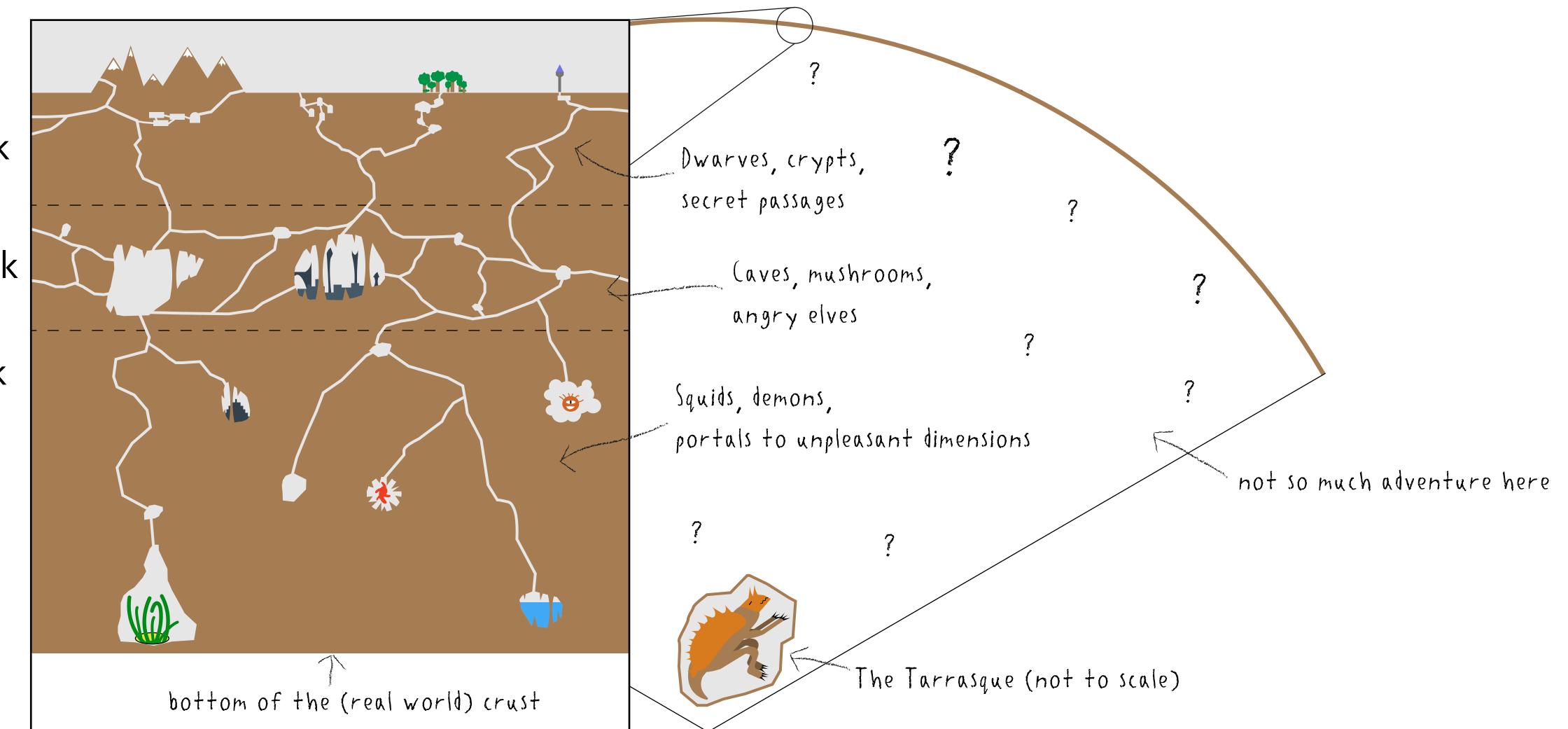
A

Just assume there's an underground wizard keeping those caverns comfortable.

upperdark

middledark

lowerdark

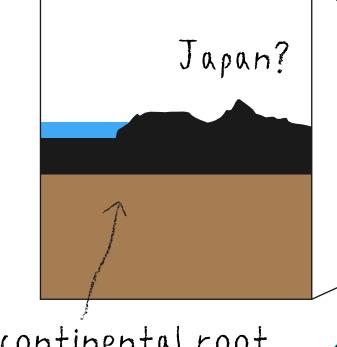


# The Core

(Jon Amiel, 2003)

scary, bridge-melting laser beams

This movie gets a lot of undeserved sass.



missing continental root

(and subducted slab)

crust ('that's where we live')

### mantle

you were so close!

preposterous geode

outer core

('a trillion trillion tons of hot metal')

exciting core geysers

inner core

('a big solid chunk of iron')

I'm going to assume this is the upper mantle

'funky transitions'

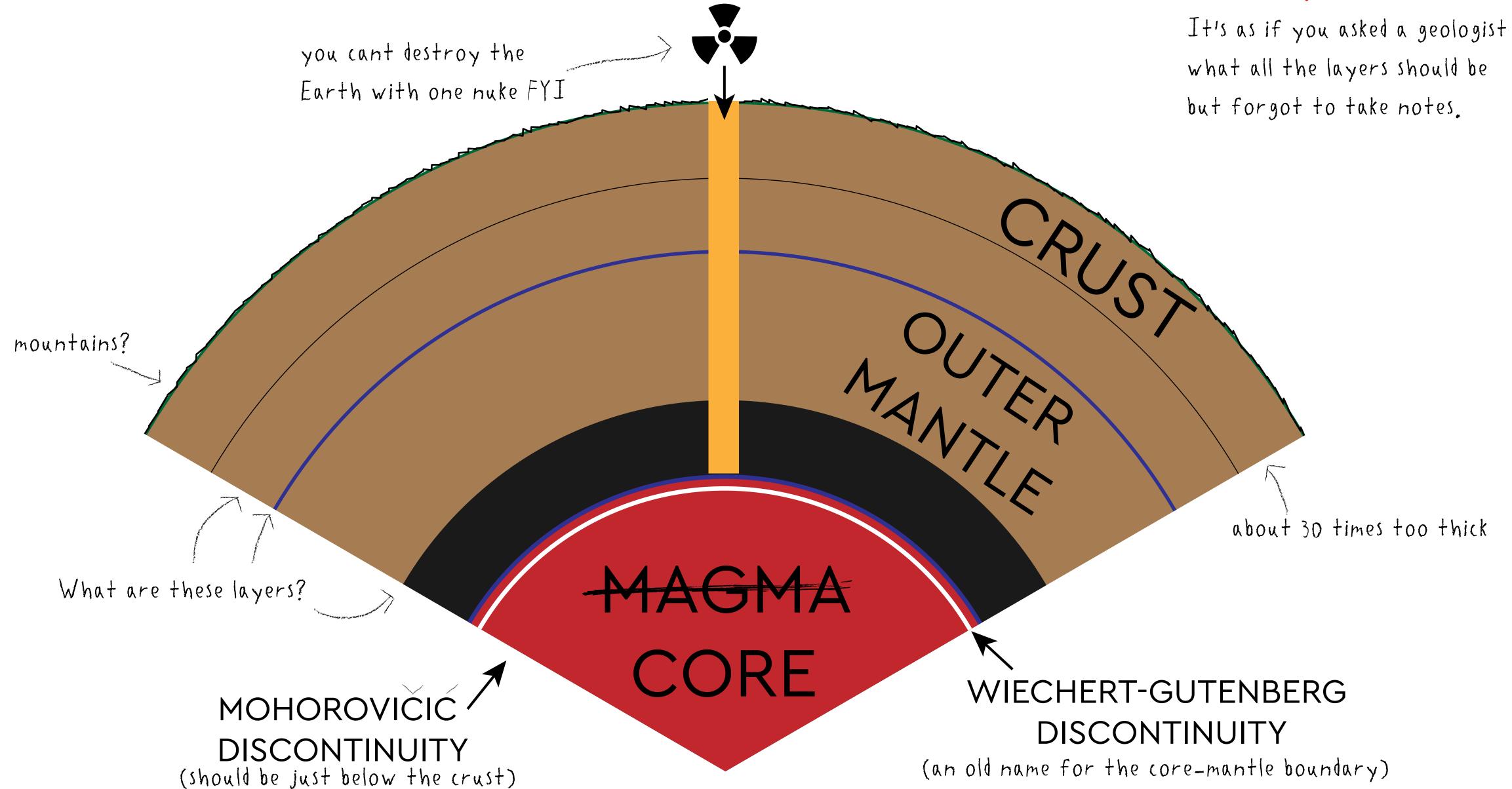
'diamonds the size of Cape Cod'

(eggaerated, but not impossible)

## Crack in the World

(Andrew Marton, 1965)

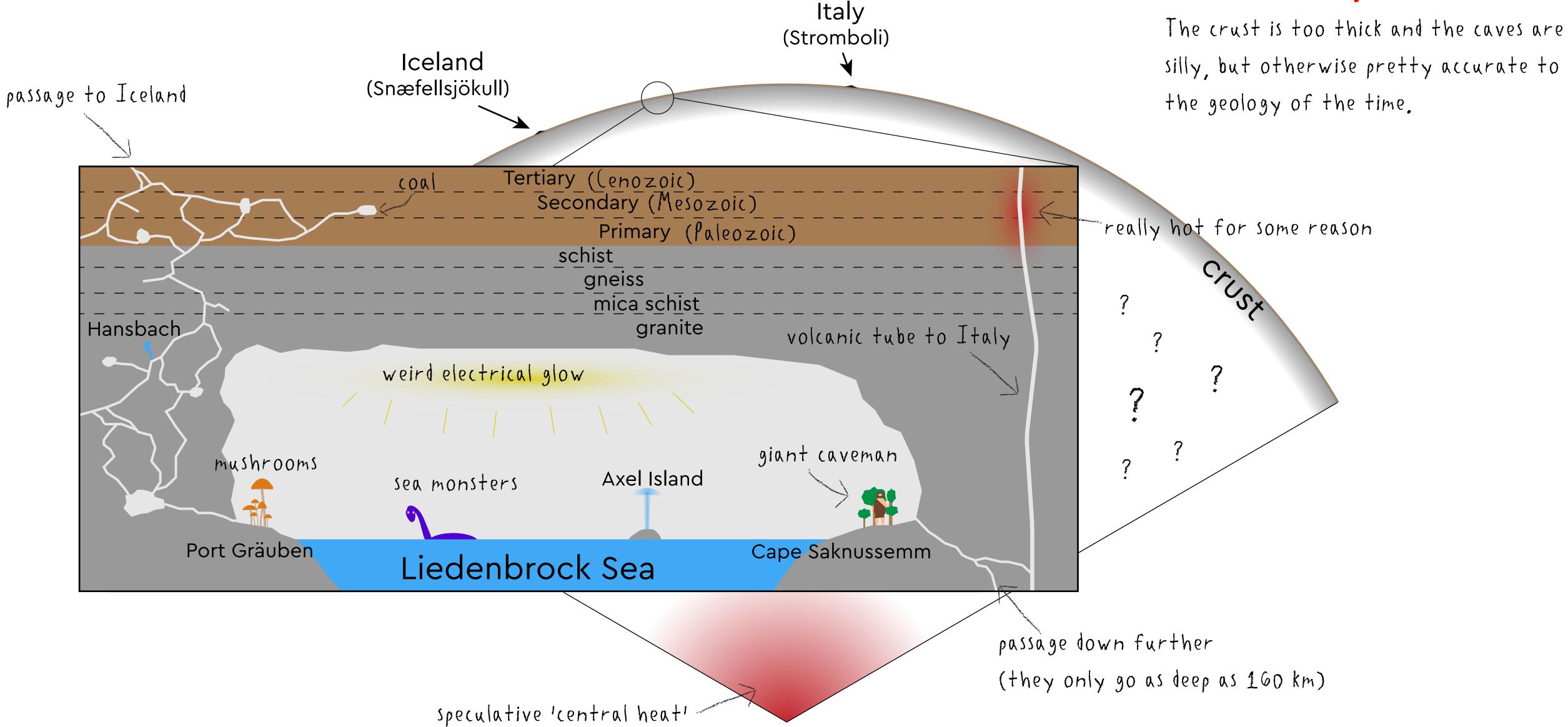




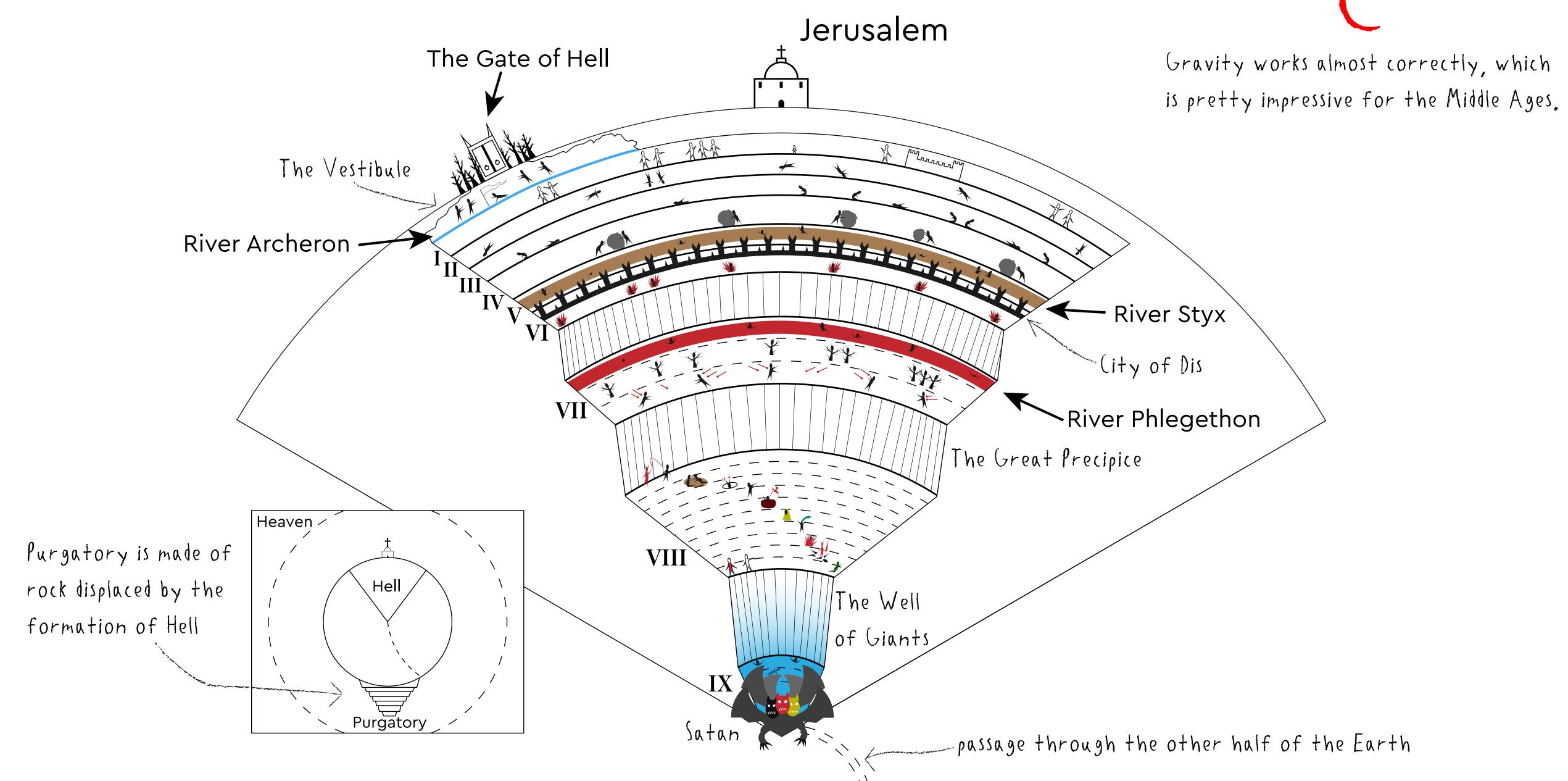
#### Voyage au centre de la Terre

(Jules Verne, 1864)



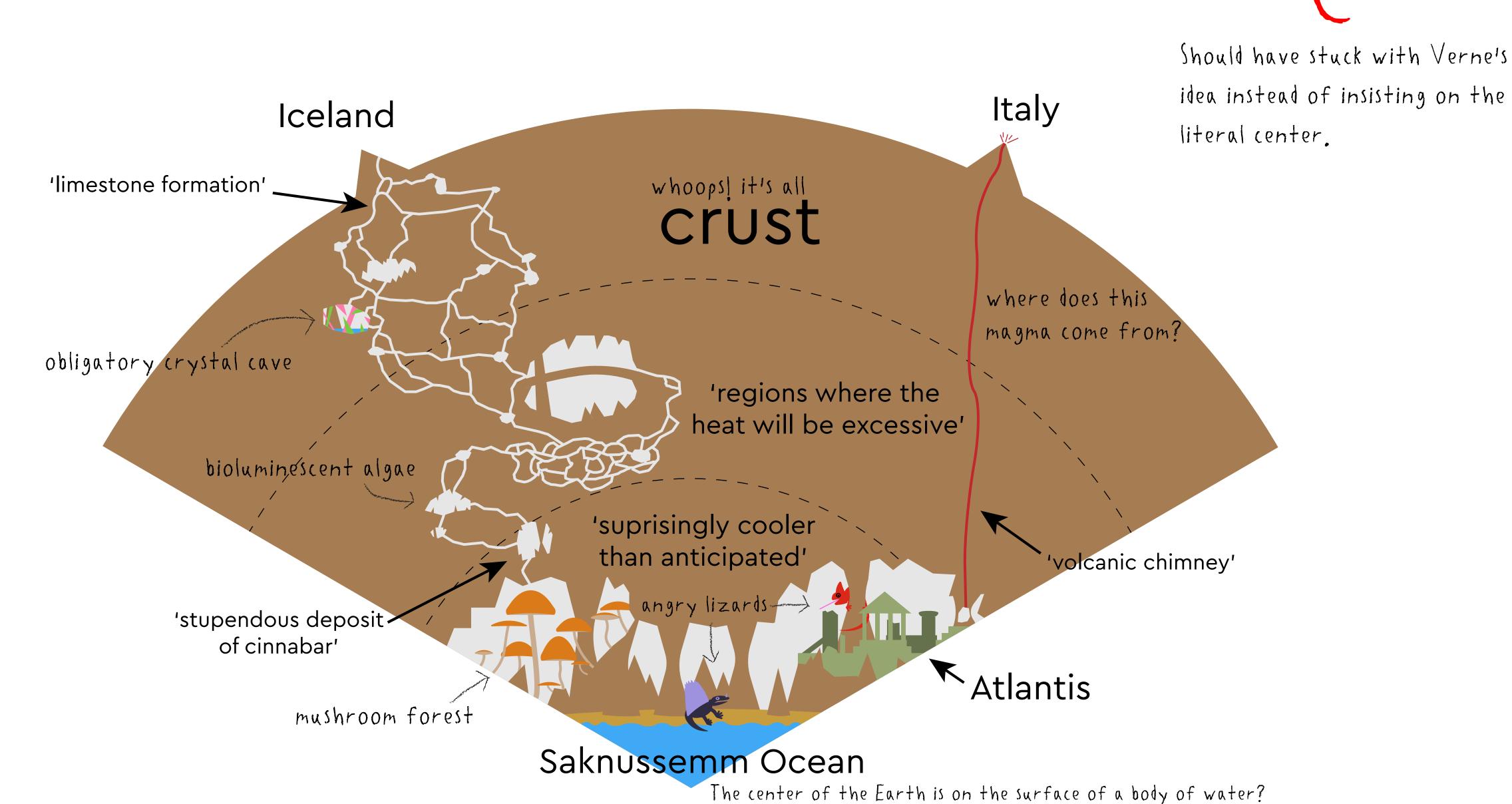






#### Journey to the Center of the Earth

(Eric Brevig, 1959)



# Pelucidar (Edgar Rice Burroughs, 1914)

I'm going to tell Issac Newton what you did. North Polar opening jungles, kingdoms, dinosaurs, etc. Crust There's no gravity inside a spherical shell! Land of Awful Shadow Interior Moon at least there's no magma (stationary) I assume the atmosphere stops somewhere, right?

Pellucidar's inverted land: water ratio means that it has twice as much land as the outer surface.

Amazingly, Burroughs' math is all accurate.

Interior Sun

how does this work?

# Discworld

(Terry Pratchett, 1983)



See me after class.

