

LAVA TYPES

BASALT
(LOW VISCOSITY)

- long, thin flows
- up to ~ meter thick
- 10's to 100's of km long

RHYOLITE
(HIGH VISCOSITY)

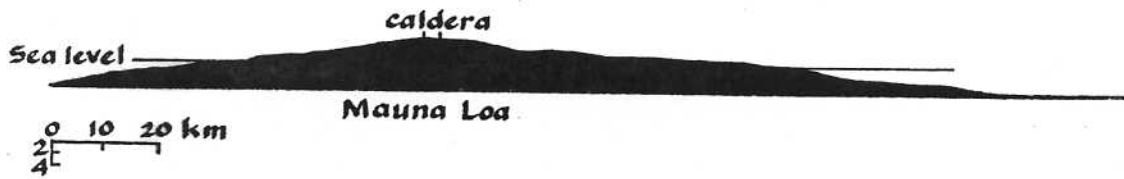
- most commonly "domes"
- 100's of meters thick
- less than km long
- obsidian flows

ANDESITE
(INTERMEDIATE
VISCOSITY)

- both domes and thick flows
- up to 10's of meters thick
- up to 10's of km long

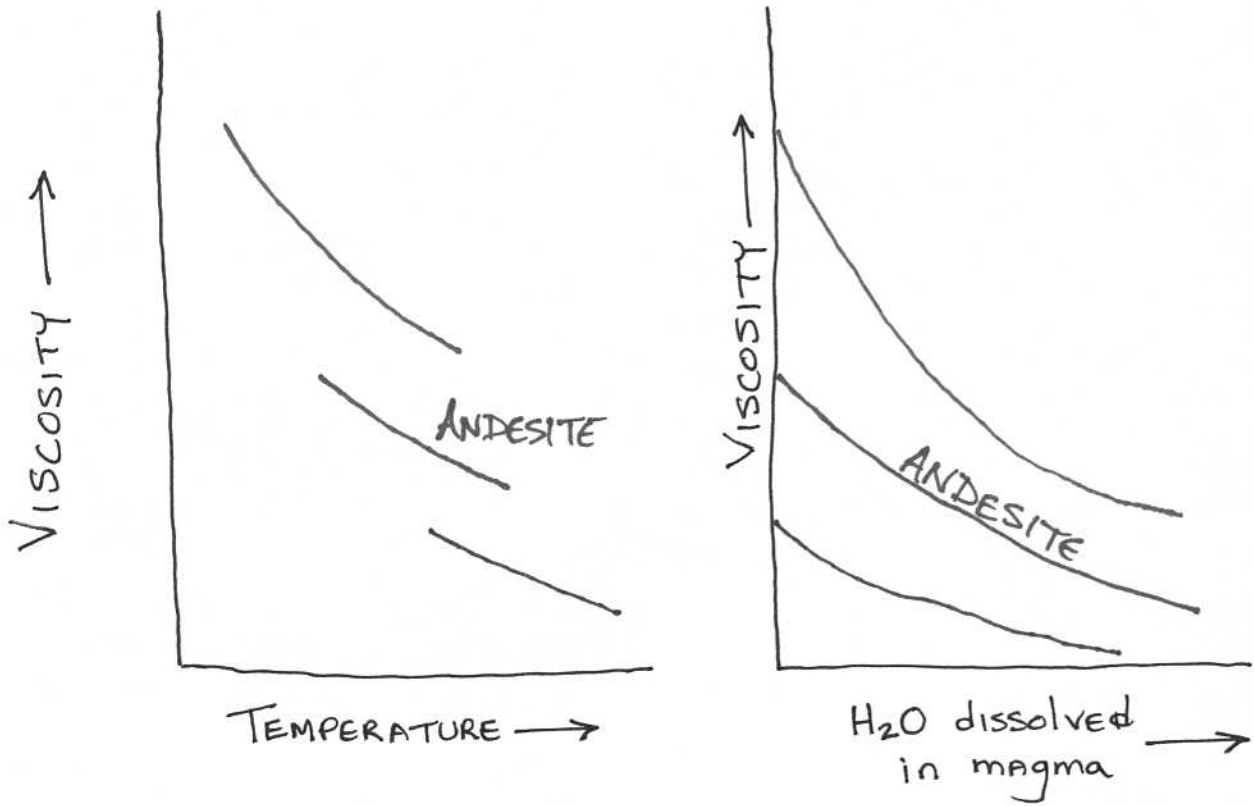
VOLUME ~ 200 km³

Vesuvius Etna Rainier



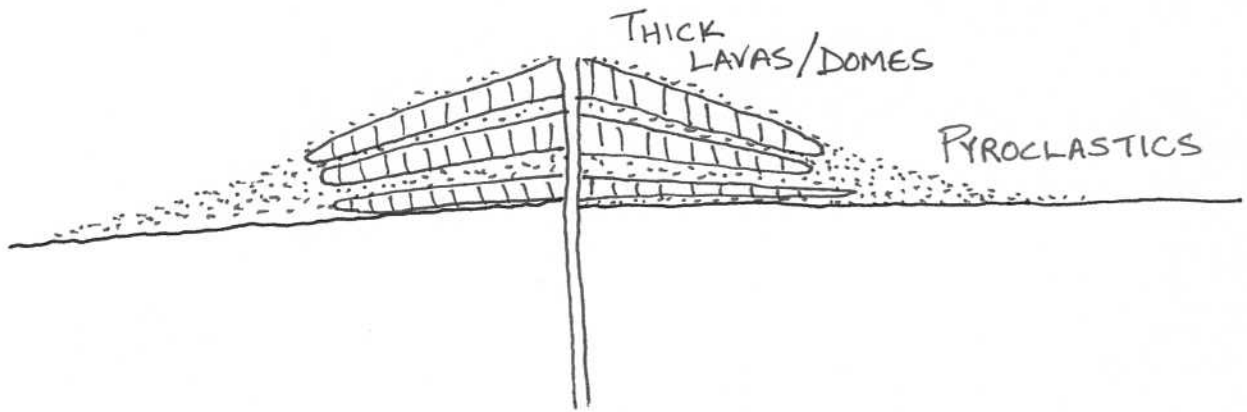
VOLUME ~ 40,000 km³

ANDESITE MAGMA (AND DACITE MAGMA)



ERUPTIONS TEND TO BE
LESS EXPLOSIVE THAN RHYOLITE

ANDESITE VOLCANO
"STRATOCONE"



BUILT UP BY STACKS OF LAVAS

"RING OF FIRE"

SUBDUCTION OF PACIFIC PLATE

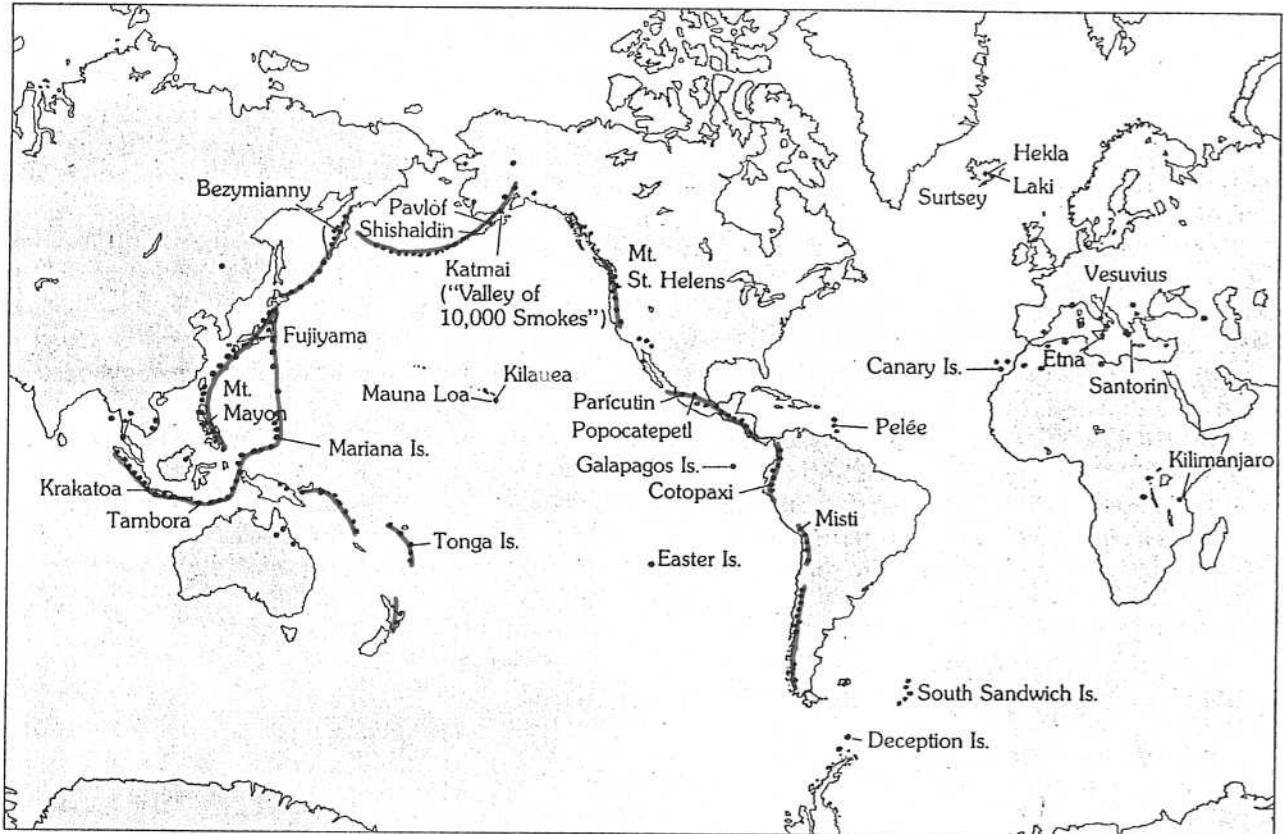


FIGURE 4.24
Locations of some of the more recently formed volcanoes.

ALEUTIANS
CASCADES

PART OF RING OF FIRE

LAHAR

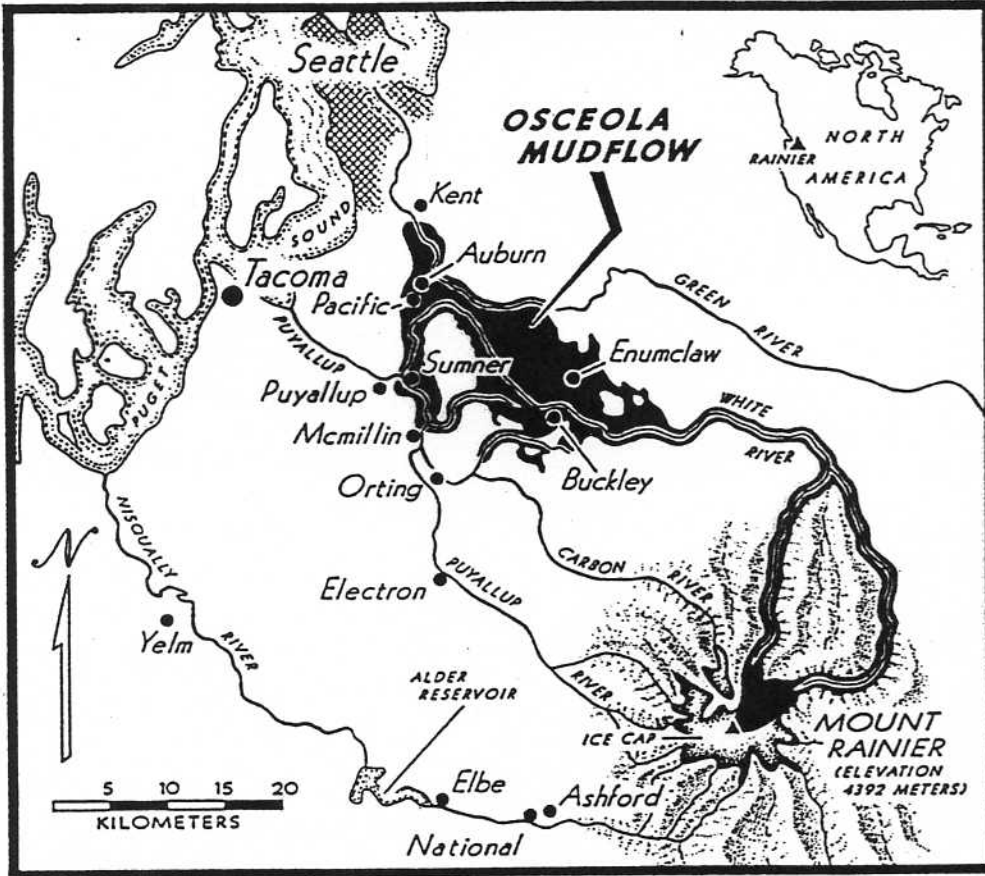
mud flow that consists of volcanic material and water

SOURCE

- sudden deposition of pyroclastic material into rivers or lakes
- heavy rainfall
- melting of snow and ice

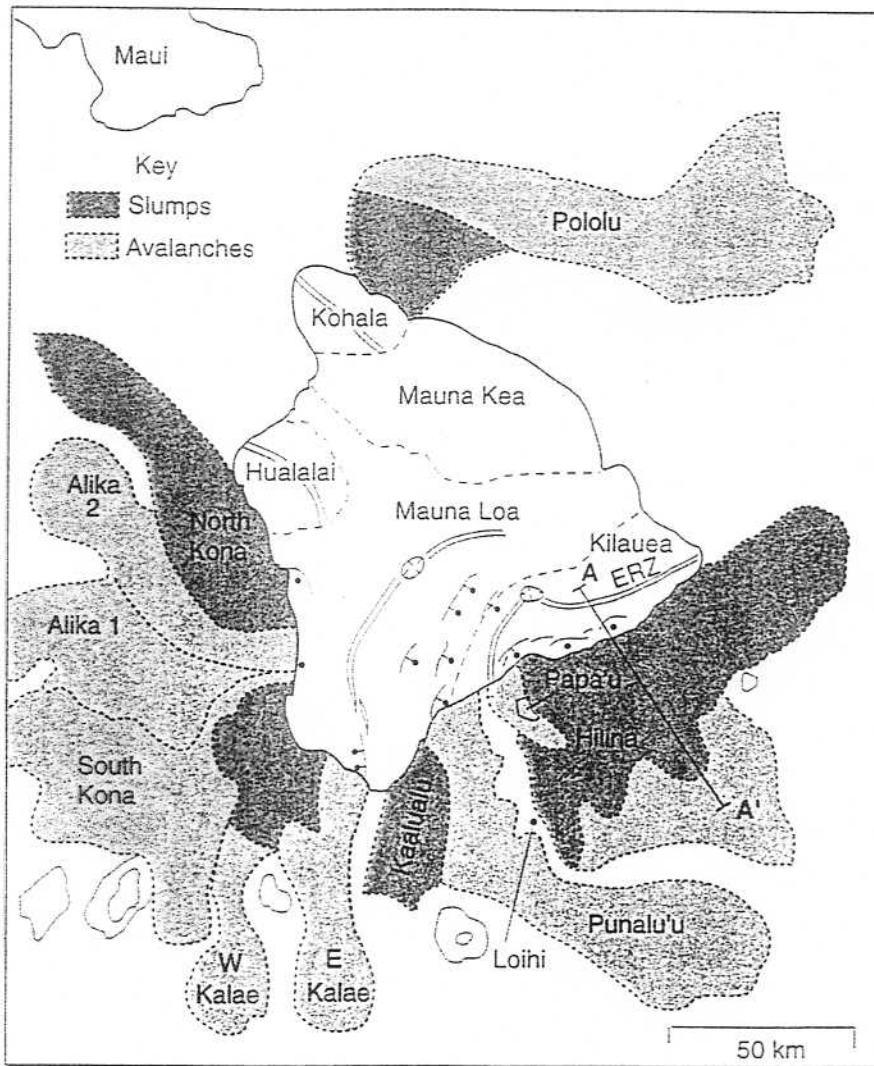
CHARACTERISTICS

- high volume flow rates and velocities
- high "carrying capacity"
- can be hot due to hot volcanic material and/or heated water



~ 5,700 years ago

>500 km² in AREA



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