GEOGRAPHIC TRADITIONS

SPATIAL
REGIONAL
MAN-LAND
PHYSICAL

GEOGRAPHIC THEMES

LOCATION
absolute / relative
PLACE
surface features
climate
landforms/landscapes
HUMAN-ENVIRONMENT INTERACTION
adaptation
modification
dependencies
MOVEMENT
dispersal
convergence
mobility of "capital"
linkages
REGION
scale
areas of commoness

MORPHOLOGY : FORM VARIABLES

Constitution
Internal properties of form
Physical and chemical properties
Configuration
Size and form
Assemblage of forms
Mass Flow
Rates involved in movement

MORPHOLOGY: DYNAMIC VARIABLES

Energies of process that change over time e.g. water/wind velocities

Types of Systems

ISOLATED
absolute / perpetual sytems
0 energy in, 0 energy out
CLOSED
Limiting boundaries
Allows passage of energy
OPEN
Open boundaries
Allows passage of energy and matter
OPEN-Dissipative
Systems with irreversible processes resulting in the dissipation of energy
Directional processes in short-term stages
Cyclic systems in long-term stages
***All Geomorphic Systems are Open Systems**
They all involve exchanges of matter and energy with other surrounding systems

GEOMORPHIC SYSTEMS: DRIVING ENERGIES

Endogenic
forces of creation
processes originating from within the earth
Exogenic
forces of creation
proesses originating from the surface of the earth and the atmosphere
Extraterrestrial
cataclysmic processes and black swan events

VOLCANISM: Areas of Formation

VULCANIC/Extrusive
formed outside of the earth,
extruded from volcanoes
fine grained, glassy
relatively less dense
exposed to atmoshpheric activity
PLUTONIC/intrusive
formed within the earth, forms
intruded upon existing material
coarse grained
has a high density

VOLCANIC LANDFORMS: Extrusive

Volcanoes
Shield
Composite
Lava Domes
Cinder Cones
Calderas and Lake Volcanoes
Geysers, Fumaroles, Hotsprings
Geysers spout pressurized steam from underground water
Fumaroles spout gas
Hot springs are sources of heated water which passed through hot rock
Plateau/Flood Basalts
Island Arcs

VOLCANIC LANDFORMS: Plutonic

BATHOLITH / STOCK
large masses of plutonic rocks (100sgkm min.)
Laccoliths
horizontal mushroom shape magma deposits along pre existing rock strata
Volcanic Necks

VOLCANIC LANDFORMS: Plutonic (cont)

remnants of eroded volcanic pipes
Sills
horizontal magma sheets cutting along existing rock layers
Dikes
vertical pipes of magma cutting across rocks, also sheeted dikes
Veins

VOLCANIC ACTiVY

ACTIVE
has erupted since the last ice age (since ~10,000 years ago)
DORMANT
hasn't erupted in the past 10,000 years, but which is expected to erupt again
EXTINCT
No expected activity

SEDIMENT / ROCK TYPES

Clastic / Detrital
mostly from regolith deposition
Chemical
chemical precipitates created when the carrying capacity is exceeded
Biogenic
biological deposits such as forams and plant detritus

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