

Notices

EXAM 1 and ExCr 1 will be returned on Tuesday

IF YOU MISSED THE EXAM YOU NEED TO SEE ME TO ARRANGE A DATE FOR A MAKE-UP EXAM.

❖ Extra Credit:
 "Think Geographically" Essays from any five of the textbook's chapters 4-12.
 – Last day to submit is MAY 12 but it is best to do them as you finish reading a chapter.

❖ Two required essays are due by **April 17, 2020**.
 ➤ A late penalty will be applied.
 ✓ A third essay may be used for extra credit in place of a "Think Geographically" essay.

ESSAY TOPICS (choose any two):

- Contributions of a noted geographer, earth scientist or explorer (chapter 1)
- Relationship of climate change to a listed current event topic (chapter 2)
- Discuss a natural process that is deemed a natural hazard and how we deal with it (chapter 3)

GEOG 101
PART II

Environment and Resources
Chapters 2, 3, 4, and 5

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Textbook Chapters: 2, 3, 4, 5

9: Intro. to People and their Physical Environment

I. Introduction to the Physical Environment

II. Earth-Sun Relationship

III. Earth Systems

A. The Hydrosphere: Oceans

B. The Atmosphere: Weather and Climate

C. The Lithosphere: Geologic Influences

IV. Earth Habitat

A. Biosphere

B. Natural Controls and Cycles

C. Human Impact

D. Natural Hazards

E. Earth Resources

Look through all 4 chapters now. Return to the topics as we cover them in class.

EXAM 2 covers all the topics listed.

People and their Physical Environment

❖ There is a relationship between people and nature, especially dynamic earth processes (chapters 2 and 3)

- ✓ People interact with the processes.
- ✓ People have an **impact** on earth systems (chapters 4 and 5).
- ✓ The Earth is composed of a complex of systems and subsystems that act as a whole.
- ✓ These systems may be altered by the works of people.

➤ When one thing changes, other things **also** change!

▪ This is called "interrelationship."

Landscapes

✓ **Physical landscape** = natural conditions

✓ **Cultural landscape** = imprint of human activity

➤ Physical landscape influences the development of cultural landscape:

- economic activity
- architecture/clothing
- technology/inventions



Terraced farming, Southeast Asia




Virginia, USA




Cork, Ireland

People and their Physical Environment


There is a relationship between people and nature. (Chapters 2 and 3)



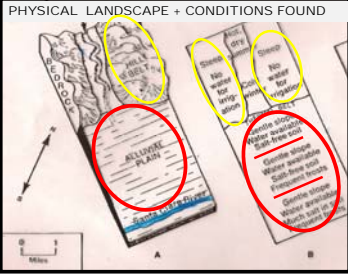


People and their Physical Environment

People identify and interact with the existing conditions and the processes creating them.




PHYSICAL LANDSCAPE + CONDITIONS FOUND



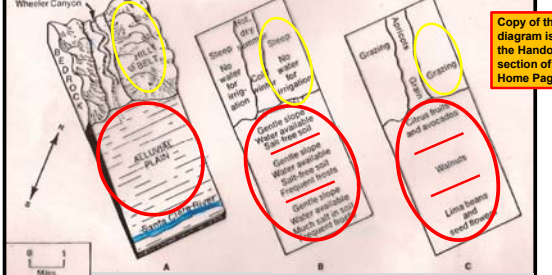
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People and their Physical Environment

People have an impact on earth systems (ch. 4 and 5) and the result is the cultural landscape: **the human imprint on the physical environment.**



PHYSICAL LANDSCAPE + CONDITIONS = cultural landscape



Copy of this diagram is in the Handouts section of the Home Page

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People and the Physical Landscape

- People cope with their environment and deal with natural processes.
- The natural processes that harmful to them are called "hazards."
- Likewise, actions of **people impinge on nature** and can be disruptive (**hazardous to nature!**) as pollution, agricultural methods, importing non-native plants, insects and animals, killing/extinction of various species of living things.

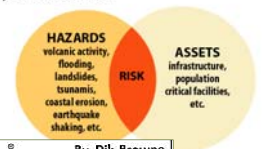
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People and Physical Processes

There is a relationship between people and nature.

When dynamic earth processes **adversely** affect people they are called "natural hazards."

Prepare and Be Aware





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People and their Physical Environment

❖ **Again, to stress this point:**
The earth is made up of a complex of systems and subsystems that act as a whole.

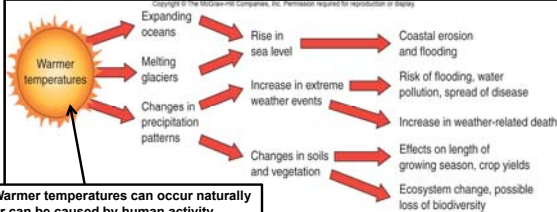
When one thing changes, other things change too!

This is "interrelationship."

Examples: global climate change; dam/reservoir construction; turning a agricultural area into a suburb or shopping mall with a huge parking lot.

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Interrelationship: An example of global warming



Warmer temperatures can occur naturally or can be caused by human activity.

Global Warming and Airline Industry

1. Rising sea level - flooded runways; storm surges
2. Hot runways - buckled concrete; melting tar
3. Decrease air density - longer runways needed; lighter loads
4. Extreme high temperatures - affect on aircraft operations and electronics

The same diagram can be used to show the effects of global cooling.

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Earth Statistics

Limited land area

Circumference = 25,000 mi
 Diameter = 8,000 mi
 Total area = 197 million sq. mi.
 Water area = 139 million sq. mi. (71%)
 Land area = 58 million sq. mi. (29%)

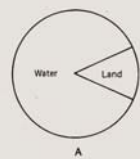
Human population: est. 7.7 billion in 2019
 Human population grows but earth statistics stay the same.
 Usable land area gets smaller.

<https://www.worldometers.info/world-population/>

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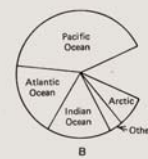
Earth Segments

Earth



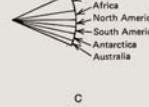
A

The Oceans



B

The Land Masses




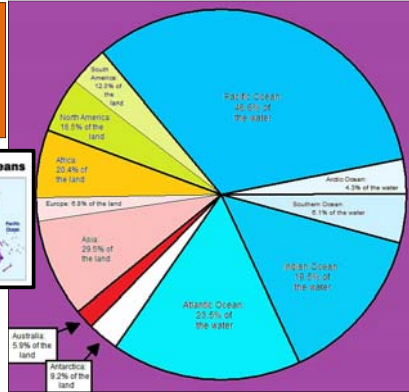
C

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Whole Earth

World Continents and Oceans





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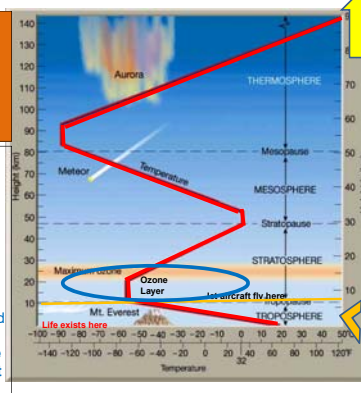
Spaceship Earth

1. Closed environment.
2. Life depends on a critical balance of elements to survive.
3. Life exists at the bottom of a 600 mi thick "ocean of air" composed of:
 - 78% nitrogen
 - 21% oxygen
 - 1% other of which .03% is CO₂ (carbon dioxide)
4. The bottom of the atmosphere is 5-7 mi thick and composed of air, water vapor and dust particles.
5. This provides the comfort zone of air pressure, humidity and light.

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Layers of the Atmosphere

- Traces of Earth's atmosphere are found as far as 6000 mi. from the surface.
- The densest portion is closest to the surface and extends only 7 miles up.
- **Temperature varies with a layer's composition.**
- Ozone in the stratosphere absorbs heat as do the ionized particles of the thermosphere.
- **Ozone Layer protects all life on Earth from the ultraviolet rays of the sun.**



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Role of the Geographer and those who are Geographically Literate

1. Study interrelationships (*people + knowledge of processes = better habitat*)
2. **Espouse conservation/preservation** (*recurring theme*)
3. **Monitor human influence** (*short period on earth/great change*)
4. **Counsel political realities** (*haves vs. have-nots*)
5. **Push for sustainable development** within an area's carrying capacity (*working with nature; limited resources that are unevenly distributed*)

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NEXT

**EARTH - SUN
RELATIONSHIPS**

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