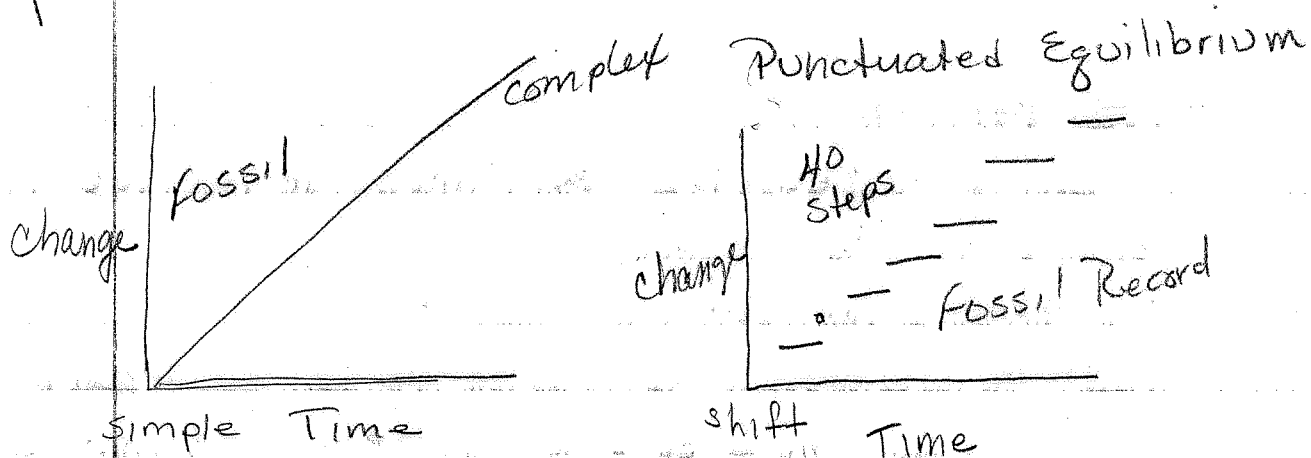


IB⁴ 10/22



everytime there was a castastrophe they find
*irridium layer (not natural to Earth)

Abiogenesis

without life creation

Spontaneous generation -

life from non-living material

- Von Helmholtz - 1600's believed in abiogenesis

wheat → wheat seeds → mice

believed mice came from wheat seeds

by putting wheat soil seeds in bag = mice

proved abiogenesis

- Francesco Redi - disproved abiogenesis

first record of scientific controlled experiment

open jar meat → maggots on meat

gauze covered jar meat → flies on top

covered jar of meat → no flies

- Louis Pasteur

swan necked flask experiment in the 1860's
cooked out bacteria

created the idea of canning -

milk - heat milk preserves it for transport
heat milk can & top seals = nothing gets in
improved French economy
"pasteurization"

Created homogenation

sterilization (patients used to die in
if surgery lasts more
than 2 mins)

↓
bacteria causes infection

1860's Am. Civil War - bullet wound = dead

only way to survive = pour sulfur on wound

Anatomy

10/21

▲ Homologous

similar developmental beginning - final structure in adult has different function

▲ Analagous

no similarity or connection to function - not related
the wing of a bat & wing of an insect. : examples

▲ Vestigial

hair, finger nails, toenails, "goosebumps" arrector pili muscle
ear pinna, appendix (partially vestigial), Coccyx (tailbone),
wisdom teeth, little toe
an unnecessary structure

▲ Comparative Embryology

fish - salamander

tortoise - chicken

rabbit - human

▲ Comparative Biochemistry

2 most important chemicals to compare are:

enzymes found in body

DNA found in cells

Quiz wed 10/28 next class