

Ch. 7: The Cell, Membranes & Organelles

1.10.11

* Why are prokaryotes the oldest org. on Earth?

* If they have NO NUCLEUS does that mean they have NO DNA?

2 Categories of Cells

1.) Prokaryotic

↳ pro = 1st

↳ oldest org. on Earth

↳ "simple"; NO NUCLEUS

ex: eubacteria

and cyanobacteria
(blue-grn. algae)

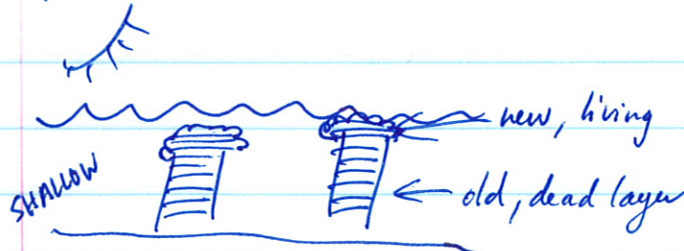
2.) Eukaryotic

↳ "eu" = true; HAS NUCLEUS

↳ considered more COMPLEX

ex: animal cells,
plant cells

SOUTH PACIFIC
* Stromatolites - "algal mats" -
oldest known prokaryotes on
Earth; made up of cyanobacteria
(bar stools)



layers of cyanobacteria grow near water surface b/c they use photosynthesis to make energy

I. Discovery of Cells

A. Microscope

1. van Leeuwenhoek

2. cork → "cell"

B. The Cell Theory

1. Virchow

2. Schleiden

3. Schwann

a. Cell basic unit

b. Cells make cells

c. All life made of cells.

II. 2 Major Types

A. Prokaryotes

1. NO NUCLEUS

B. Eukaryotes

1. HAS NUCLEUS