ro.nov 26|Harry Luo

1. Introduction (Section 1: A New Epoch):

- **Opening Hook:** Uses the example of a mine visible from space to illustrate human geological impact.
- **Introducing the Concept:** Defines "Anthropocene" and its origin, noting its rapid spread despite lack of formal acceptance.
- **Contrasting Perspectives:** Highlights the difference between cautious geological deliberation and broader enthusiasm.
- **Framing the Argument:** Introduces the future geologist's and synchronic perspectives and states Santana's position: defer formal recognition.

2. Defining the Problem (Section 1.1: Criteria for designating a new epoch):

- **Distinguishing Agency from Epochal Change:** Explains that human impact doesn't automatically equate to a new epoch.
- **Geological Procedures:** Outlines the established criteria for defining epochs, emphasizing the GSSP and stratigraphic markers.
- **The Challenge of Prediction:** Focuses on the unique requirement of using historical science to make predictions about the future.
- **Expanding the Scope:** Acknowledges the potential role of social science in understanding future human impact.

3. The Future Geologist's Perspective (Section 2):

- **Core Argument:** Current changes don't meet epochal criteria, and predictions are unreliable due to mitigation potential.
- **Establishing a Baseline:** Reviews geological changes marking past epochs (Paleocene-Holocene) for comparison.
- **Three Key Objections:** Outlines reasons against recognizing the Anthropocene: (1) Mitigation potential, (2) Holocene continuity, (3) local vs. global impact.
- **Analysis of Specific Markers:** Systematically addresses each proposed marker, arguing that each falls short:
  - **Climate Change (2.1):** Sea-level rise is substantial, but not unprecedented (compared to Pleistocene) and potentially reversible.
  - **Fossil Record (excluding humans) (2.2):** Examines extinctions, introductions, migrations, showing none yet reach epochal significance.
  - **Human Fossil Record (2.3):** Trace fossils predate the proposed Anthropocene and might not endure.
  - **Direct Anthropogenic Deposits (2.4):** These are generally localized and lack global reach.
  - **Chemical Markers (2.5):** Plutonium is promising, but insufficient on its own without accompanying global change.
  - **Hydrology (2.6):** Human influence is long-standing, deeply embedded within the Holocene.
- **Addressing Objections (2.7):** Responds to potential counterarguments about mitigation, renaming the Holocene, and cumulative local impacts.

4. The Synchronic Perspective (Section 3):

- **The Political Argument:** Considers the argument for recognition based on raising awareness and motivating action.
- **Skepticism about Effectiveness:** Argues against this approach, doubting its impact on skeptics.
- **Polarization and Social Identity:** Highlights the role of social identity in shaping beliefs about climate change, suggesting formalization could worsen polarization.
- **Science Communication:** Discusses the potential of education, but differentiates it from simply naming an epoch.
- **The "Buzzword" Effect:** Warns about the potential for the Anthropocene to distort research funding and marginalize Holocene studies.

5. Conclusion (Section 4: The Anthropocene Is Not yet Set in Stone):

- **Contingency of Future Strata:** Re-emphasizes that the future geological record depends on current human choices.
- **Resisting Inevitability:** Argues against the idea of an inevitable Anthropocene, as it diminishes the urgency of action.
- **Critiques of Anthropocentrism:** Raises concerns about the inherent anthropocentric and Western-centric biases within the Anthropocene concept.