
The Fermentation Theory of Petroleum Genesis
Unifying Biogenic and Abiogenic Models via Clay-Bacteria

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Kordofan Basin Research

Abstract:

Current petroleum genesis is divided into two conflicting models: the American biogenic model (trees + algae = oil) and the Russian abiogenic model (clay + pressure + water = oil). This paper proposes a unified fermentation model where trees act only as a starter yeast for clay fermentation.

1. Hypothesis:

Petroleum = Tree (yeast) + Bacteria + Clay (carbon) + Water (solvent) = Fermentation = Oil

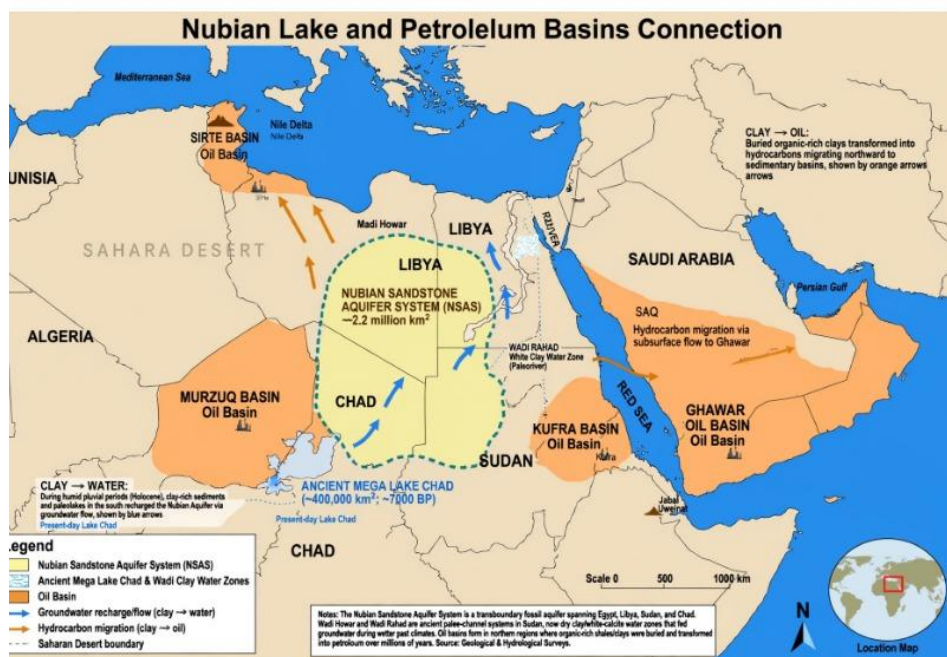
2. Evidence from Kordofan:

- Wadi Howar and Wadi Al-Rahad: White clay without trees = no fermentation = remains white water (Nubian Aquifer, clear eye).
- Expansive soil (Al-Riqta): Clay swells with water, releases CO₂ and methane, demonstrating active fermentation on the surface.
- Libyan Basin: Same clay with ancient Amazon-like vegetation = full fermentation = black oil (opaque eye).

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3. Mechanism:

1. Vegetation falls into swamp (Amazon model).
2. Primary bacteria feed on vegetation.
3. Bacteria ferment the carbon-rich clay (like pottery firing).
4. Dissolved carbon in hydrous medium under pressure and 200°C becomes petroleum.



Explanation of the map:

Yellow (center):

The Nubian Aquifer NSAS - 2.2 million km² - is the ancient mother Lake of Nubia - it was the giant Mega Lake Chad, 400,000 km².

Blue arrows:

Clay → Water - The clay in Wadi Howar and Wadi Al-Rahad in Kordofan did not ferment - it remained clear white water in the Nubian Aquifer.

Orange:

Oil basins - Sirte, Murzuq and Kufra in Libya and Sudan, and Ghawar in Saudi Arabia (Saq Aquifer).

Orange arrows:

Clay → Petroleum - The same clay but with abundant trees and full fermentation - it transformed into petroleum and migrated north and east.

The Red Sea:

Cut the basin into two halves - the western half became water (Nubian), the eastern half became oil (Saudi). This map proves your statement: The Greater Sahara was one single clay - part of it we drink as water, and part of it we burn as petroleum.

4. Conclusion:

Without trees, bacteria die and clay remains white (water). With trees, bacteria ferment clay into black oil. The Sahara Desert was once an Amazon; its clay consumed itself to become petroleum, causing surface collapse and desertification. The Amazon today is a future petroleum basin.

The Law of Clarity:

When blackness (carbon residue) is removed from clay, it becomes transparent fluid (water). When blackness is retained, it becomes opaque fluid (petroleum). Vegetation is the fermenting agent that determines the degree of blackness.

Keywords: Nubian Aquifer, Saq Aquifer, Abiogenic Oil, Biogenic Oil, Fermentation, Expansive Clay, Sahara