

A large, dark, weathered Moai statue is shown in profile, facing right. It is situated on a grassy hill. The background is a bright blue sky with scattered white clouds. The text 'Catastrophe of Easter Island' is overlaid in yellow on the right side of the image.

Catastrophe of Easter Island

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Cover: <https://eu.usatoday.com/story/news/world/2019/01/11/easter-island-statue-mystery-may-have-been-solved-researchers/2548626002/>



Run down of the presentation

1. General informations
2. The Catastrophe
3. Reason 1: Ecocide
4. Reason 2: Genocide
5. Inconsistencies
6. A different approach
7. Discussion

General information about Easter Island



- A province of Chile
- Area of 163.6 km²
- Population: 7,750 (2017)
- Language: spanish
- Rediscovered in 1722 on Easter Day
- Home to the Moais
- World heritage site

Catastrophe of Easter Island

- Inhabitants arrived around 1000 (?)
- Superior stone-working, unique writing system
- Upon rediscovery: approx. 2000 people
- 1860: 100 people
- Resources ran out (trees, soil,...)
- Reasons vary: rats, white men, immigration...
- Huge arguments (Benny Peiser, 2005)

Figure: <https://ancientdan.com/2018/08/05/the-talking-heads-of-rapa-nui-part-8-a-warning-to-us-all/>



Reason 1: Ecocide

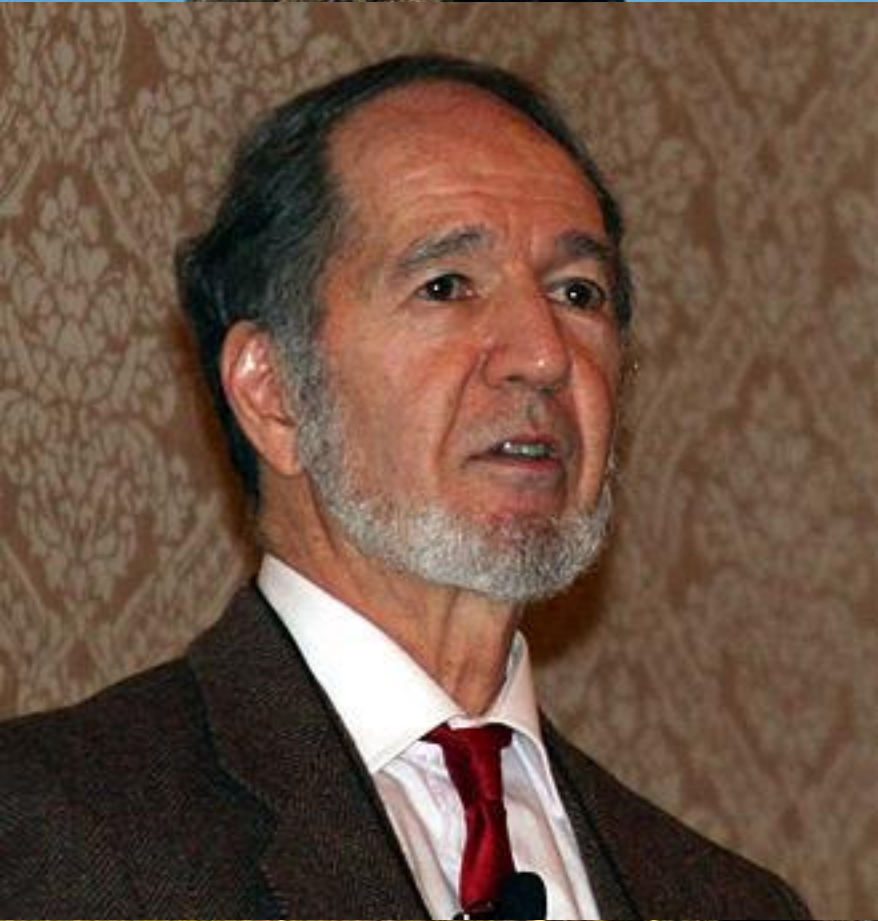


- Overexploitation by LOCALS
- Deforestation
- Fully degraded soil
- Plants used as fuel
- Extinction of animals
- Polynesian rats
- Most popular theory

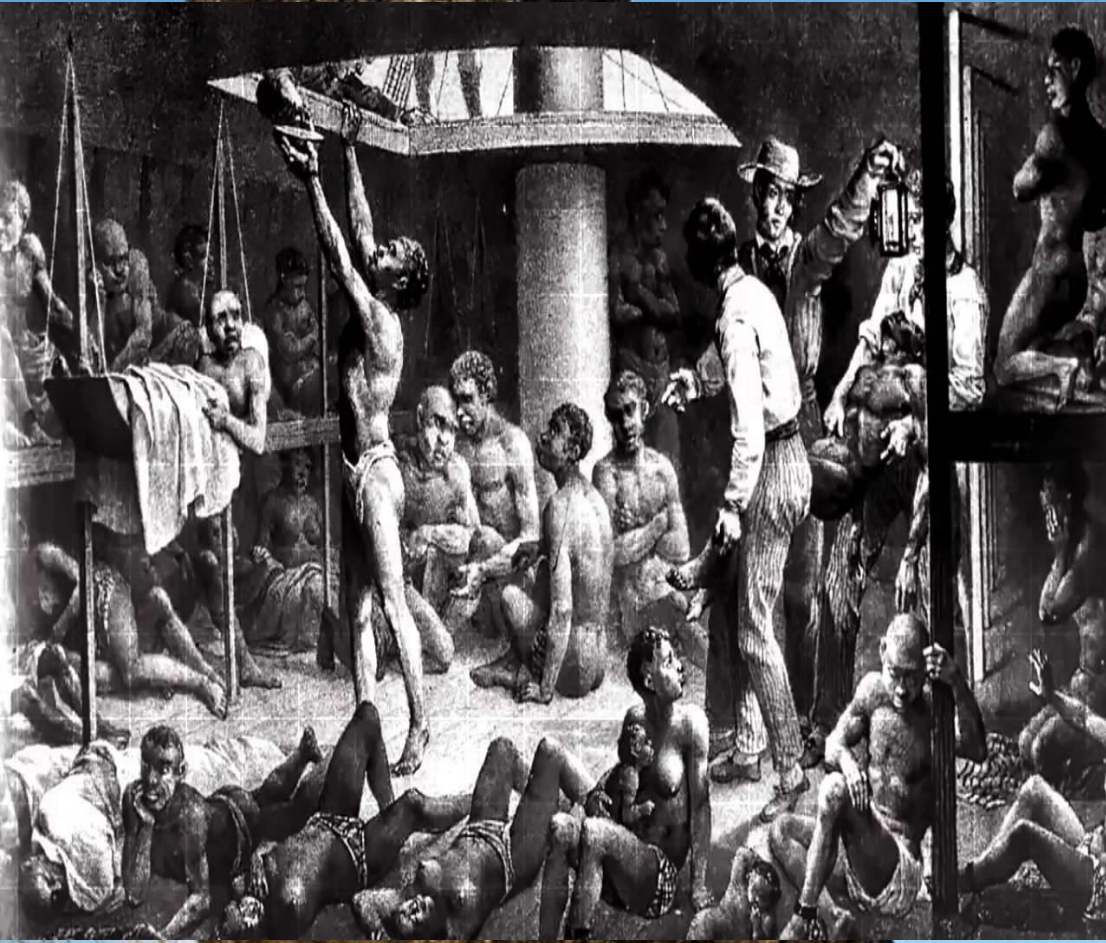
Figure: <https://medium.com/literally-literary/isengard-represented-the-industrial-revolution-because-tolkien-hated-technology-6ed05430ecce>

Reason 1: Ecocide

- Jared Diamond: Collapse: How Societies Choose to Fail or Succeed (2005)
- Fighting for resources: Civil War
- Cannibalism
- Basis for environmental predictions
- Earth Island Model (microcosm)
- Is this our future?



Reason 2: Genocide



- Diamond's theory came under fire
- No archeological evidence for ecocide
- Slave trade
- Deliberate destruction of the environment
- Overexploitation by WHITE MAN
- Multiple articles on Diamond's „convenient” thinking
- However: no archeological evidence for genocide either (though slave trade was there)

Where is the evidence?



- Oral traditions (unreliable?)
- No archeological evidence for either
- Myths and contradictory tales
- When were the Morais erected?
- Information written down after missionaries arrived

Figure: <https://memes.getyarn.io/yarn-clip/a5b9e9a5-5718-4d4d-bba3-783afc2093e3>

Deforestation: Key evidence for ecocide?



- Reason for disaster: palm trees went extinct
- Pollen analysis: palm trees existed there
- Upon arrival in 1722: barely any trees
- No way to transport rocks -> decline of statues
- No fuel -> wiping out plants
- Smaller trees still existed

Figure: <https://9gag.com/gag/avLV5VM>

Deforestation: Key evidence for ecocide?

BUT:

- Wooden native houses
- Wooden canoes
- Upon arrival did not inspect the whole island
- Uncertainty about deforestation period (1400?)
- Dates were flung around with new points
- Reason? Rats? People arrived?
- Disappearance of trees means immediate societal collapse?



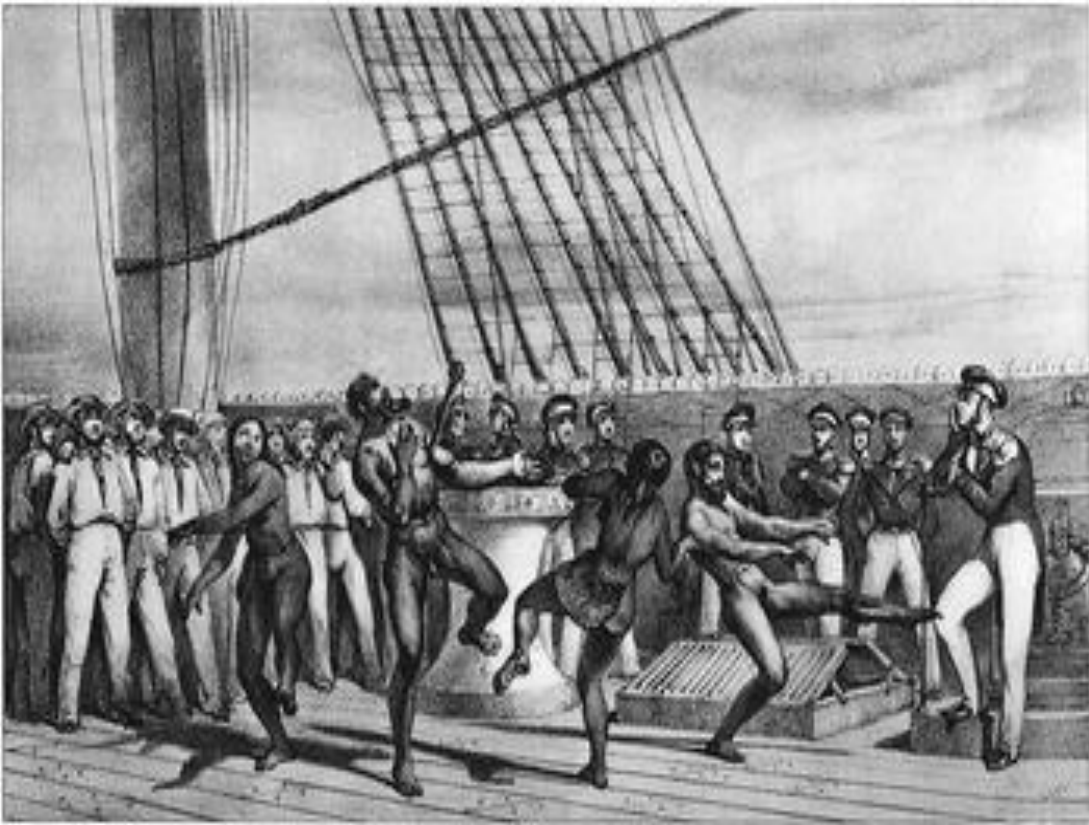
From famine to cannibalism?



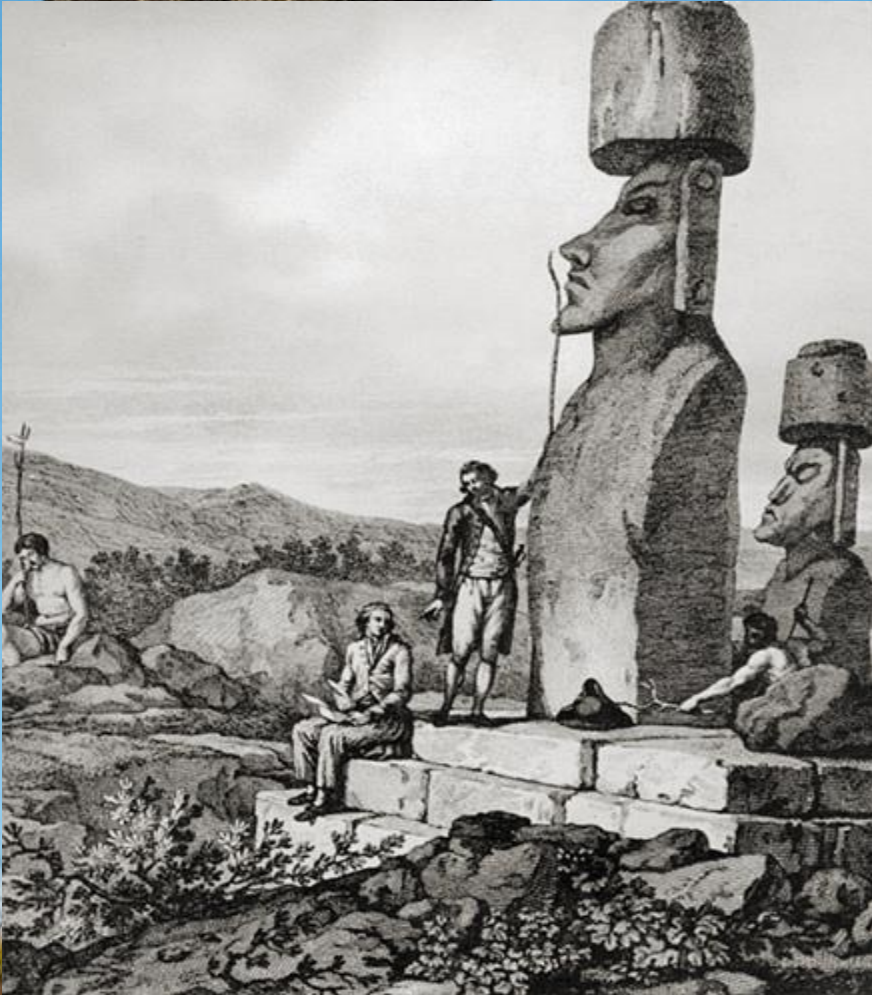
- Fightin for resources -> Cannibalism
- A bit too extreme
- Numerous Polynesian rats
- Domestic animals: chickens
- Rich in fish stock
- Exemplary fishing skills
- Cannibalism suddenly seems absurd

Slavery: Key evidence for genocide?

- Began after deforestation
- Slave raids
- 53 European ships in 140 years
- Kidnappings, skirmishes, Peru
- Later: deportation
- In 1864: missionaries -> dying culture found
- 100 people remained from the 2000



Slavery: Key evidence for genocide?



- Does not rule out ecocide
- Happened after deforestation
- Immigration present
- First written evidence after it ended
- Ecocide + Genocide?

Inconsistencies

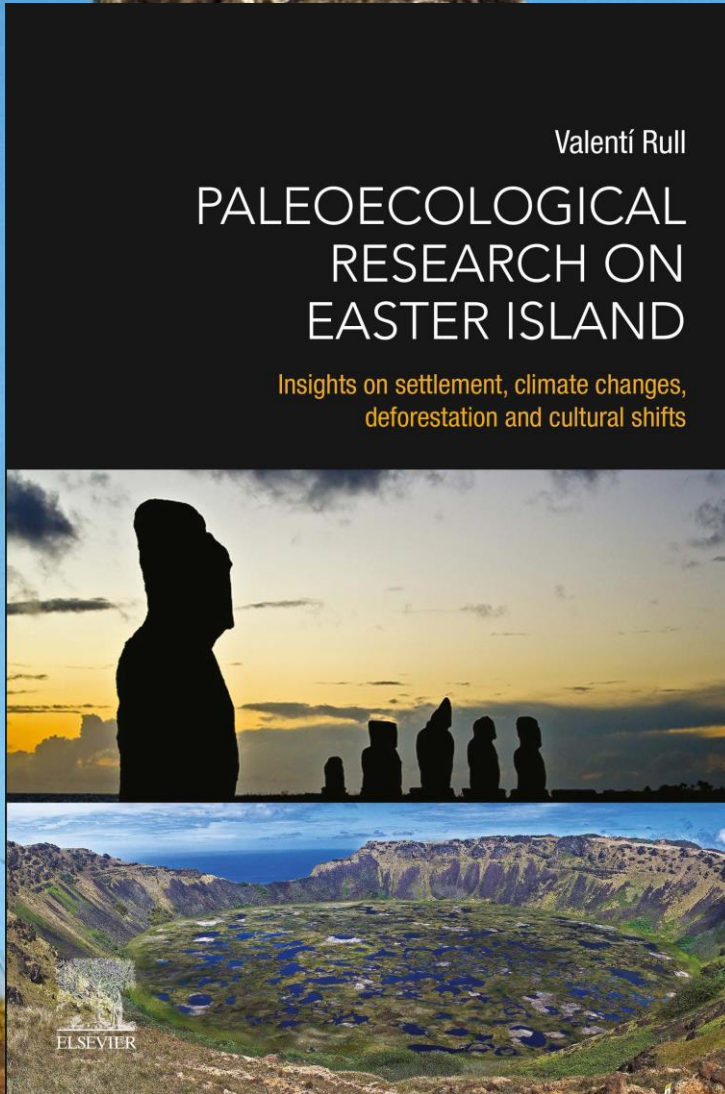


- 2 views upon arrival
- Eden or volcanic wasteland
- Diamond wrote wasteland
- Natives skilled or not?
- Not the same civilization?
- Old advanced civilization went extinct and the new ones were banished here?
- Cannibalism but rich fish stocks

Figure 1: <https://www.biblestudytools.com/bible-study/topical-studies/where-is-the-garden-of-eden.html>

Figure 2: <https://lotrfanon.fandom.com/wiki/Mordor>

A third option: Gradual ecological shift



- New paleoecological and archeological data (2013)
- Spatial and temporal analysis on radiocarbon samples
- Deforestation spanned 2000 years
- Paleoenvironmental reconstruction of past 3800 years
- Empirical evidence for human presence: introduction of a new plant + increase in charcoal (450 BC)
- Conclusion: human presence 1500 years before assumed date (Valentí Rull et. al., 2013)

Gathering evidence



- Pollen analysis does not imply that the whole island was forested.
- Record obtained from Lake Raraku
- Information gained: deforestation happened between 500 BC and AD 1500.
- Coincides with introduction of new plant (colonization)
- Conclusion: humans played a role in the decline of forests

Effects of climate drivers



- Analysis on Lake Raraku (Valentí Rull et. al., 2013)
- Searching for paleoclimatic trends
- Diatoms: aquatic environment
- C/N atomic ratio: organic matter origin
- AD 1200: shift from mire to shallow-lake
- Shift from drier to wetter climate
- Coincides with: increase in palm demise and fire usage

Showcasing Lake Raraku data

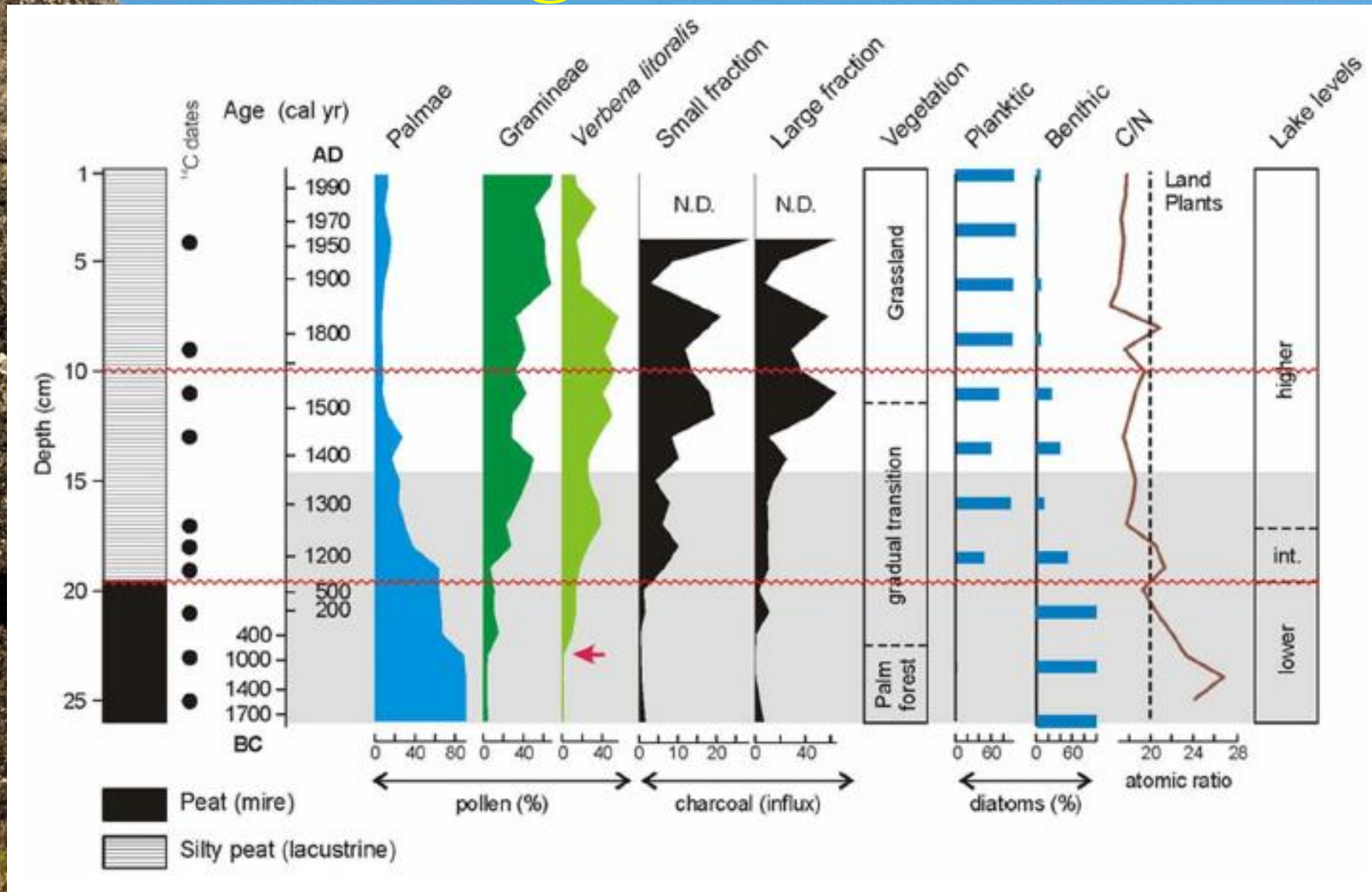


Figure: Summary multiproxy diagram from Lake Raraku (Valenti Rull et. al., 2013)



Conclusions

- Ecocide or Genocide? „Both”
- Different civilizations
- Diamond’s views are too extreme
- Slavery happened after deforestation
- Bunch of inconsistencies
- Evidences for gradual ecological collapse
- Available data suggests the latter



References

- Peiser, Benny. **FROM GENOCIDE TO ECOCIDE: THE RAPE OF 'RAPA NUI.** *Energy & Environment*, vol. 16, no. 3/4, Sage Publications, Ltd., 2005, pp. 513–39, <http://www.jstor.org/stable/43735687>.
- Rull, Valenti et al. **Challenging Easter Island's collapse: the need for interdisciplinary synergies,** *Front. Ecol. Evol.*, 17 December 2013, <https://doi.org/10.3389/fevo.2013.00003>
- General information from: https://en.wikipedia.org/wiki/Easter_Island

Thank you for your attention!