In Bonn – right now – COP23

with the Fiji government as chair-nation

There you will hear the same old story as before
all based on IPCC, AGW, Paris-agreement, etc.
i.e. models and models and political agendas

Here follow 2 papers

on real field observations in the Fiji Islands

(1) on ***Coastal Erosion*** by **Pamela Matlack-Klein**

and

(2) on ***Sea Level Changes*** by **Nils-Axel Mörner**

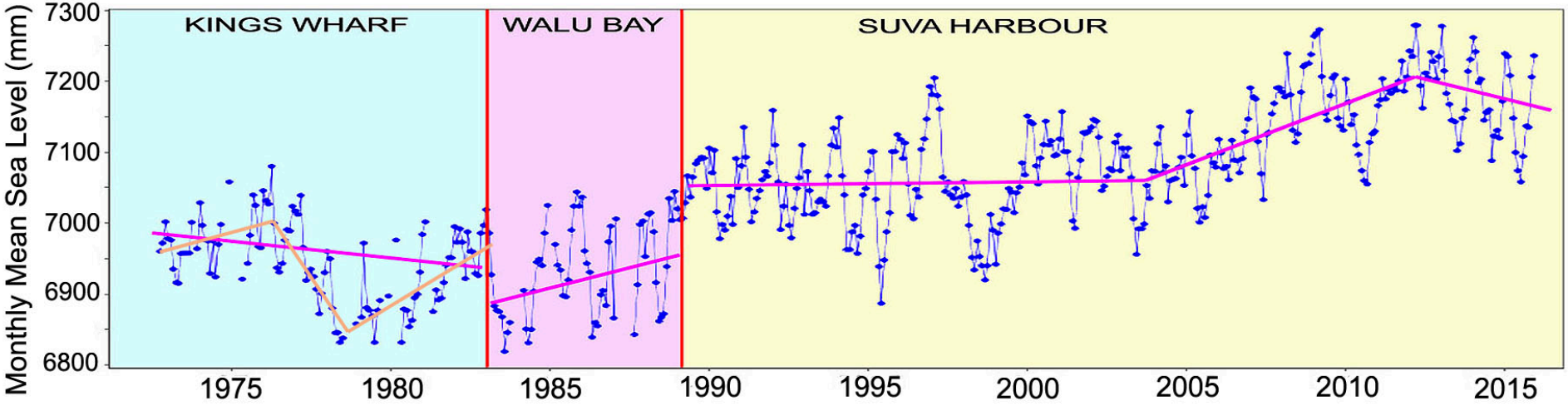
New evidence-based records from the Fiji Islands indicating rotational eustasy and absence of a present rise in sea

Nils-Axel Mörner*
*Paleogeophysics & Geodynamics, Stockholm, Sweden
morner@pog.nu

Reference:

The full paper:
Mörner (2017). Our Oceans − Our Future: New evidence-based records from the Fiji Islands for the last 500 years indicating rotational eustasy and absence of a present rise in sea level. *International Journal of Earth & Environmental Sciences*, 2: 137.
https://doi.org/10.15344/2456-351X/2017/137

The Suva tide gauge record on Viti Levu

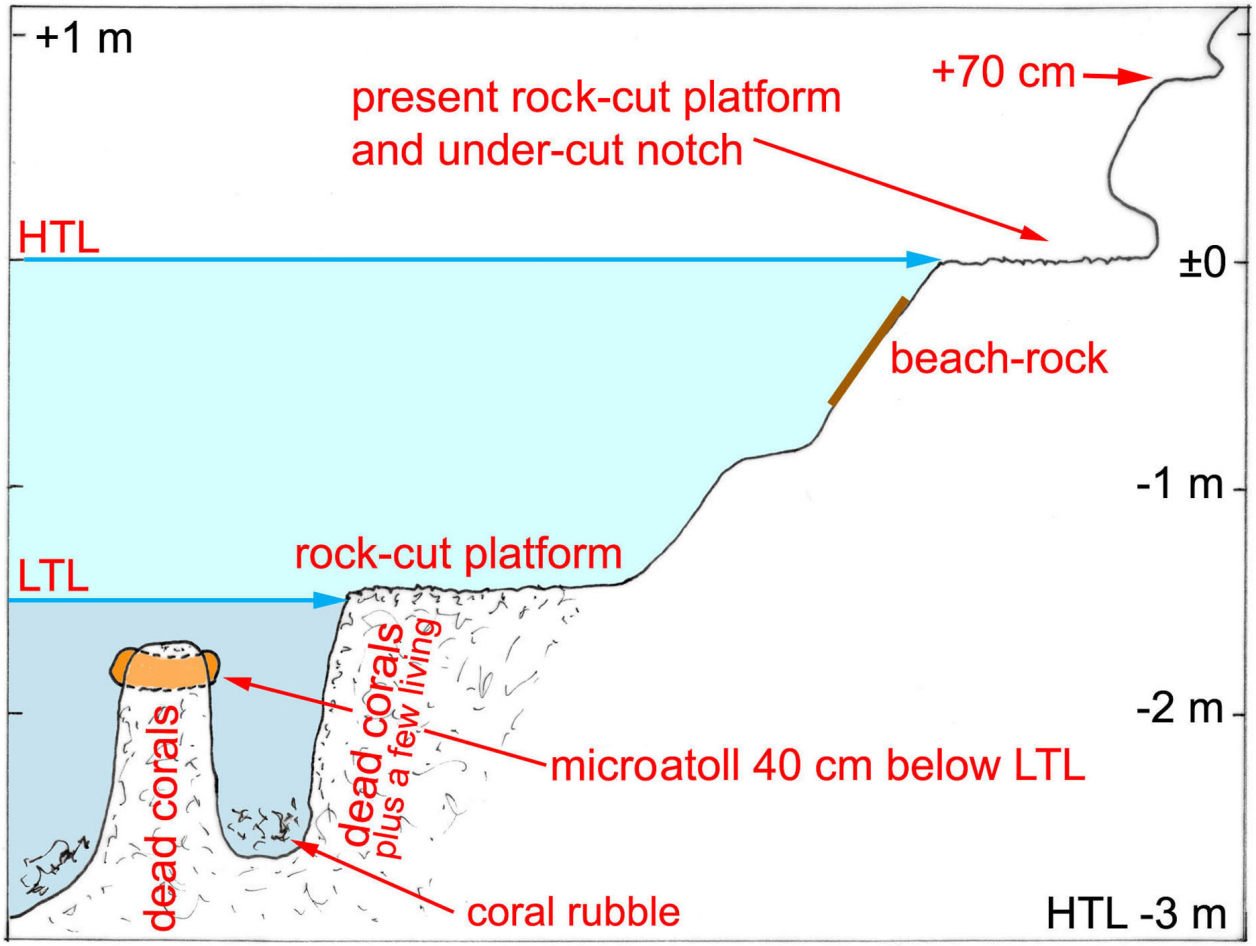


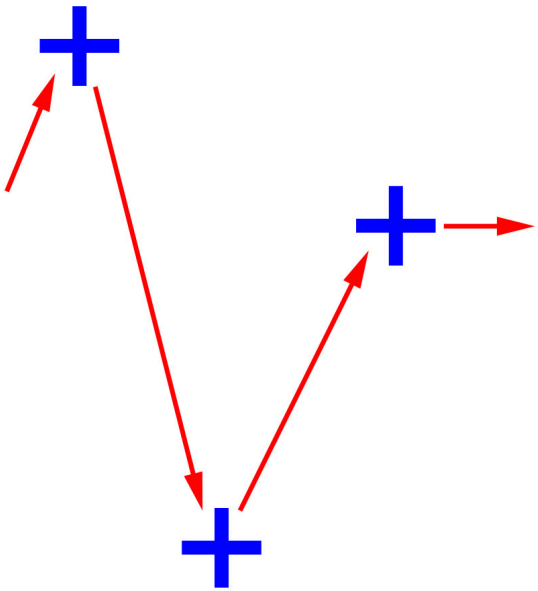
The tide gauge record from Suva originates from 3 different sites which must be analysed independently (Mörner & Matlack-Klein, 2017)

The Suva Harbour station records: stability, rise and fall

This is indicative of dynamic changes – no rising trend.

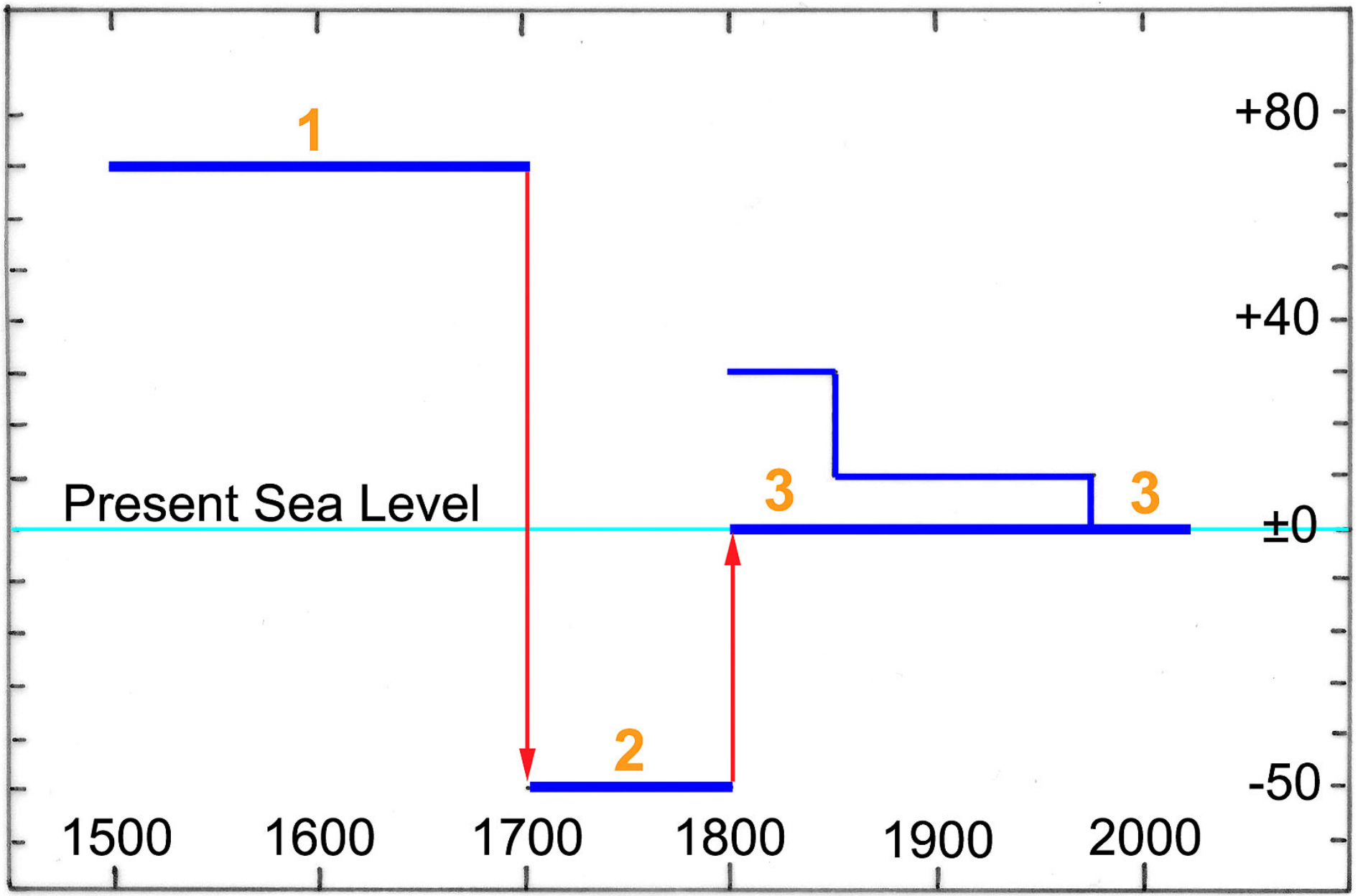
Sea level changes in the Yasawa Island, Fiji





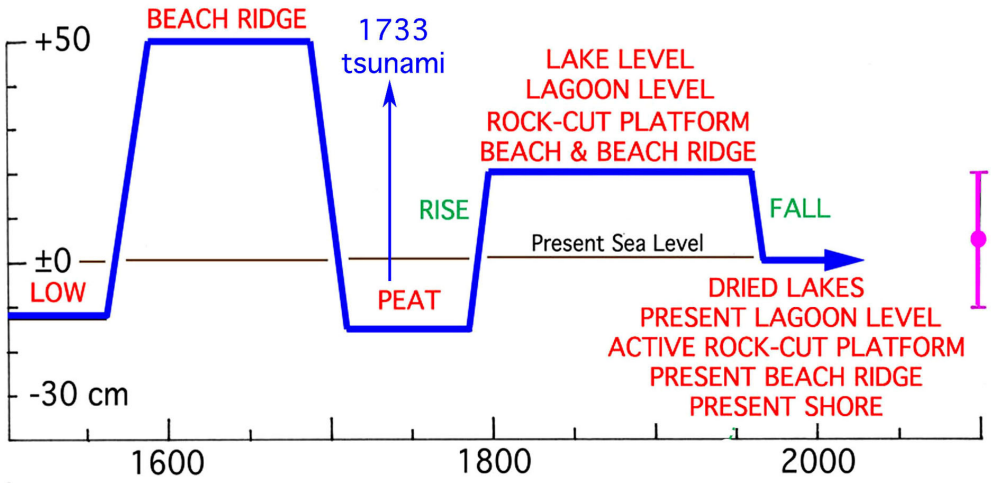
Microatolls at 40 cm below LTL,
dated at younger than 1950
indicate full sea level stability

Rise to a +70 cm HTL
Fall to a -130 cm HTL
Rise to present ±0 cm HTL

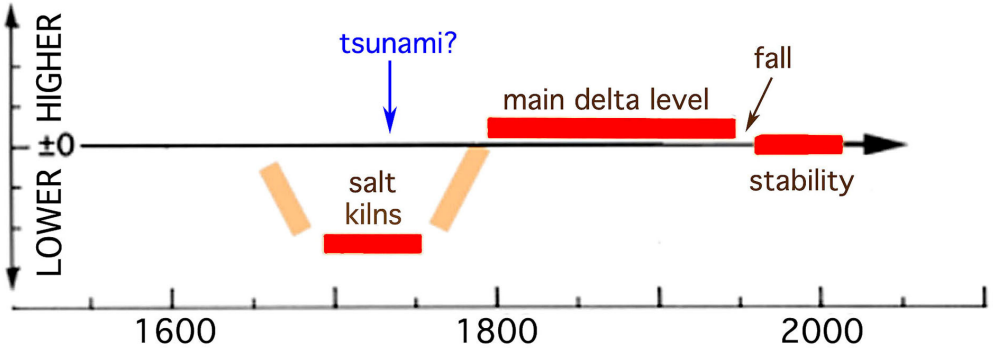


Fiji sea level change during the last 500 years

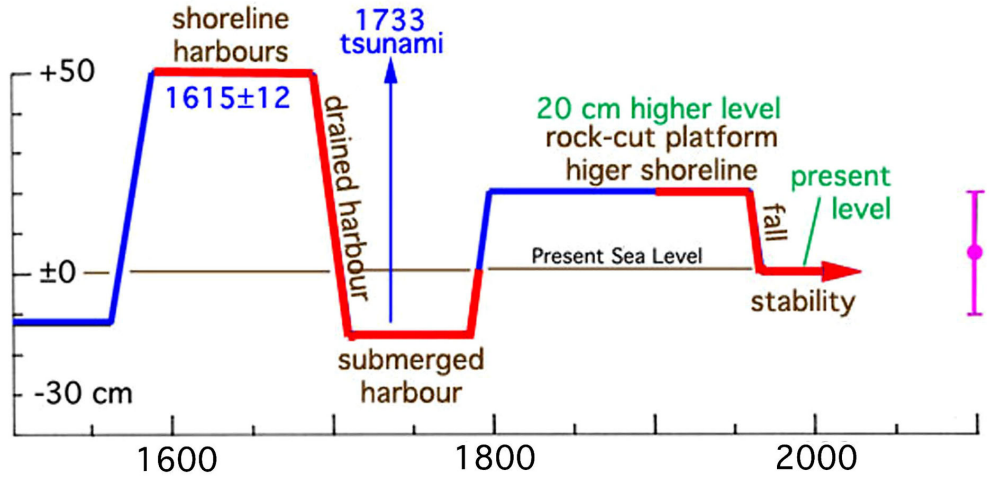
Sea level changes in the Indian Ocean



The Maldives

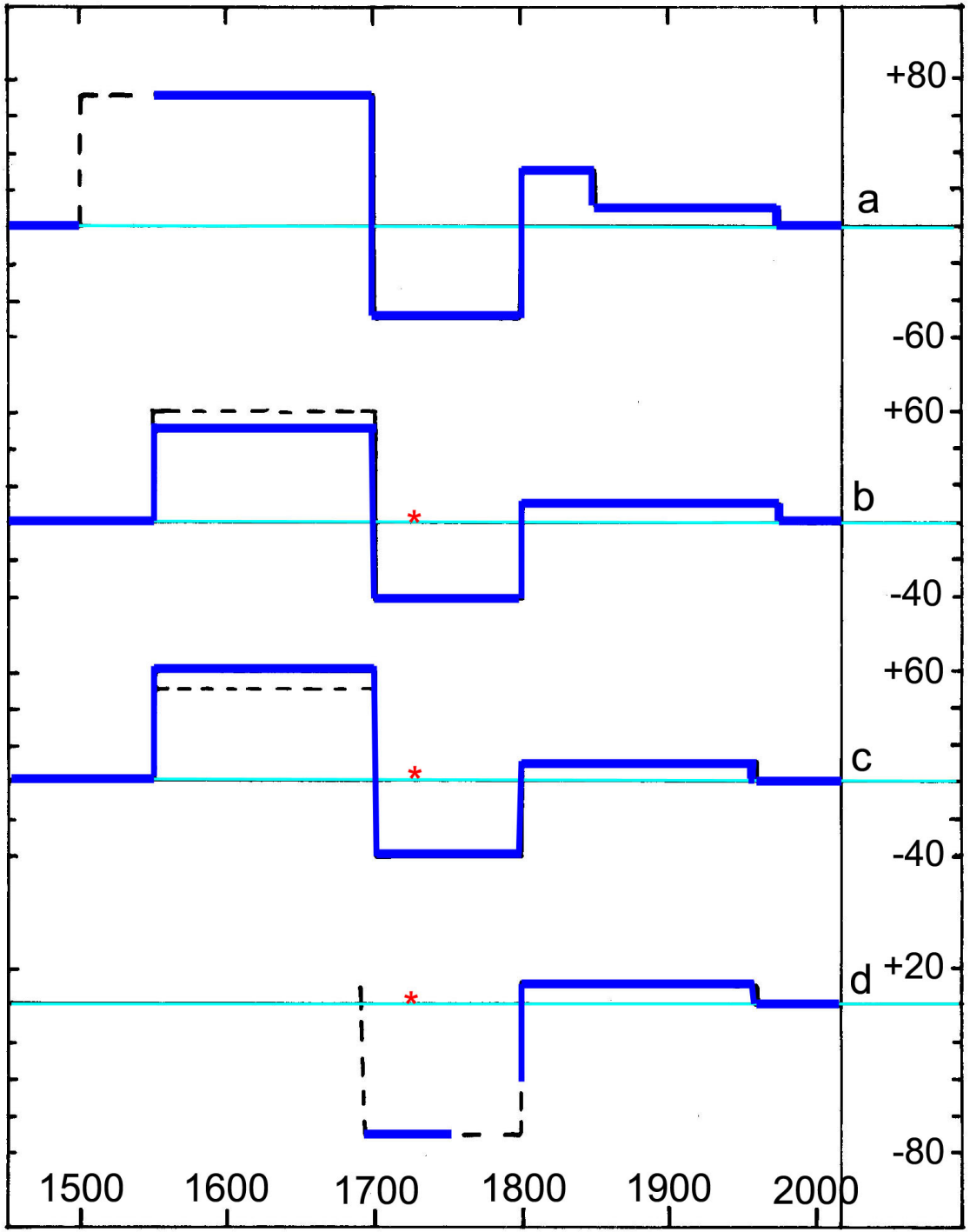


Bangladesh



Goa, India

Sea level changes



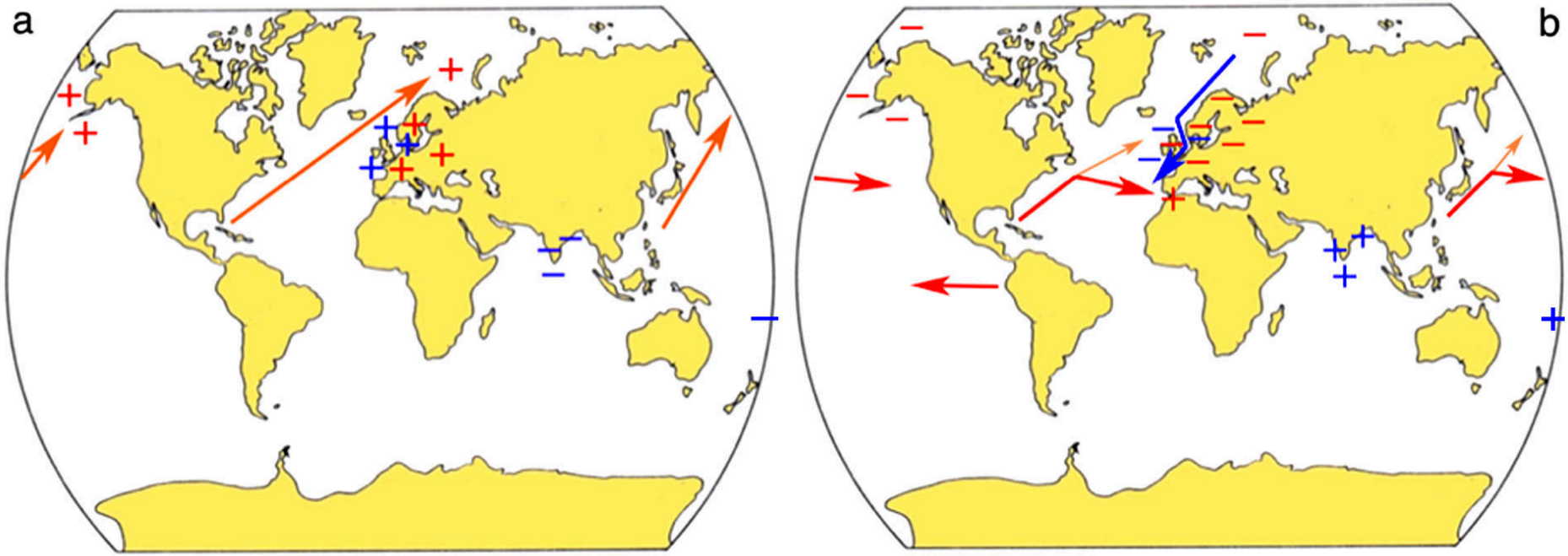
in the Fiji Islands

in the Maldives

in Goa, India

in Bangladesh

Rotational Eustasy



Grand Solar Maximum

Rotation slows down

Gulf Streams to the NE

Sea rises in the north

Sea falls at the equator

Grand Solar Minimum

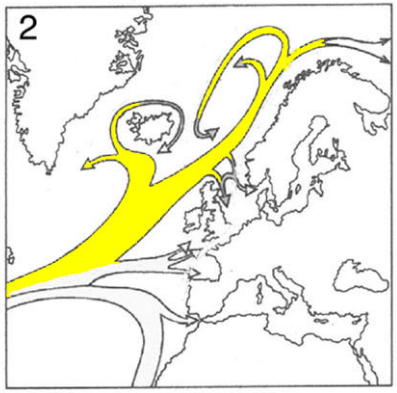
Rotation speeds up

Gulf Stream to the ESE

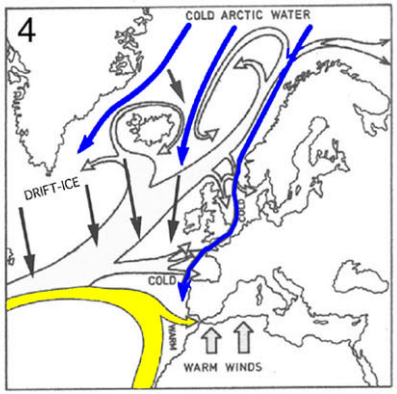
Sea falls in the north

Sea rises in the equator

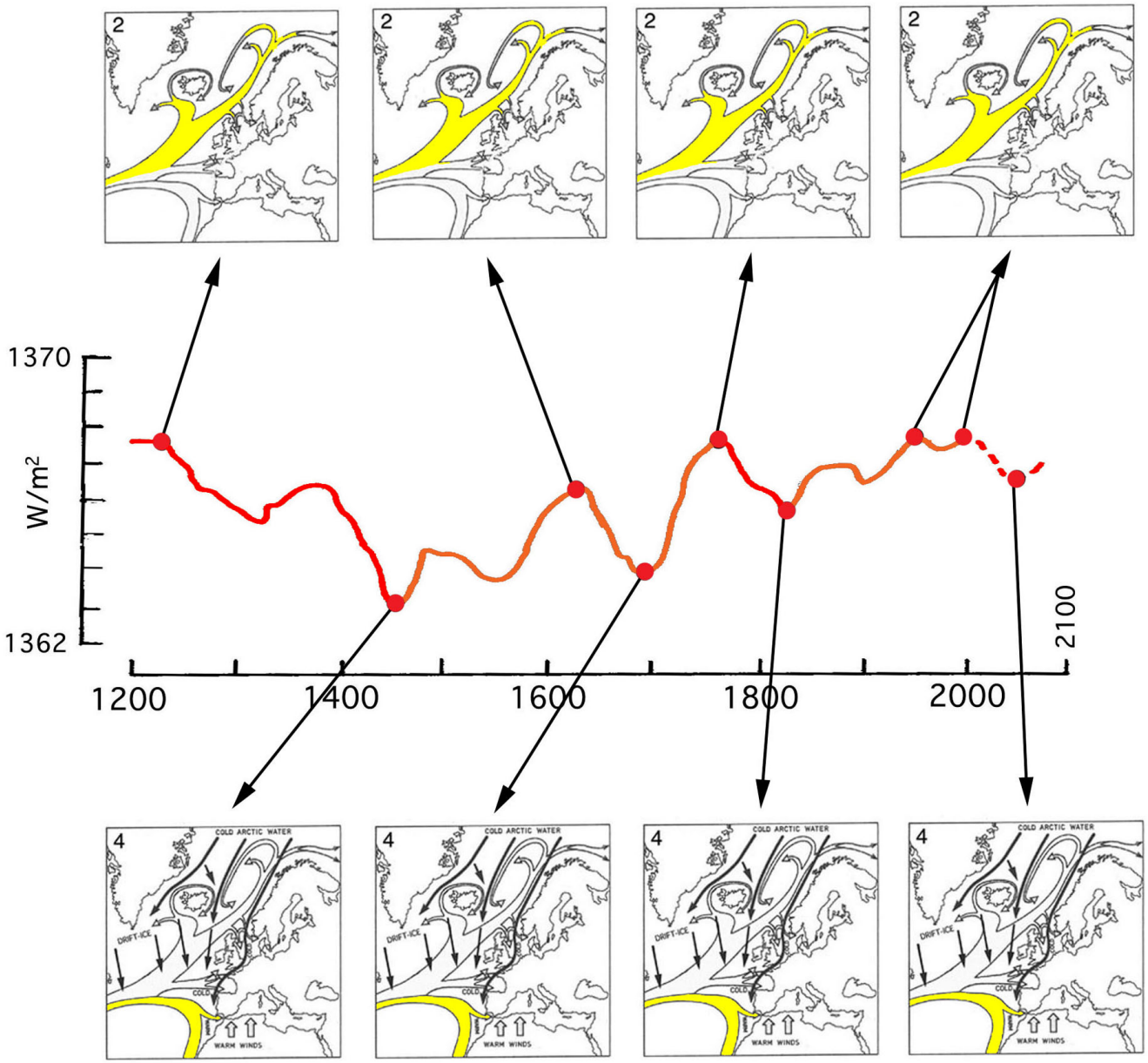
SOLAR MAXIMUM → EARTH DECELERATION →



SOLAR MINIMUM → EARTH ACCELERATION →



Relations among solar cycles, Earth's rate of rotation and the observed changes in the ocean circulation in the North Atlantic (from Mörner, 2010).


2
2
2
2
1370
W/m²
1362
1200
1400
1600
1800
2000
2100
4
COLD ARCTIC WATER
DRIFT-ICE
COLD
WARM WINDS
4
COLD ARCTIC WATER
DRIFT-ICE
COLD
WARM WINDS
4
COLD ARCTIC WATER
DRIFT-ICE
COLD
WARM WINDS
4
COLD ARCTIC WATER
DRIFT-ICE
COLD
WARM WINDS

CONCLUSIONS

(1) – **sea level is not at all in a rising mode in the Fiji area**

(2) – **on the contrary it has remained stable in the last 50-70 years**

(3) – **rotational eustasy has dominated the sea level changes in Fiji**

(4) – **the same changes are recorded in the Indian Ocean**

Reference

http://www.graphyonline.com/archives/archivedownload.php?pid=IJEES-137

International Journal of Earth & Environmental Sciences, 2: 137

Recent Publications

About Fiji:

Mörner N-A, Matlack Klein P (2017) The Fiji New Sea Level Project. Posted on ***ResearchGate*** March 22. https://www.researchgate.net/publication/315490083

Mörner N-A, Matlack Klein P (2017) The Fiji tide-gauge stations. ***International Journal of Geoscience***, 8: 536-544.

Mörner N-A, Matlack Klein P (2017) Coastal erosion in the Yasawa Islands, Fiji. ***Nature Science***, 9 (5): 136-142.

Mörner N-A, Matlack Klein P (2017) New records of sea level changes in the Fiji Islands. *Submitted*.

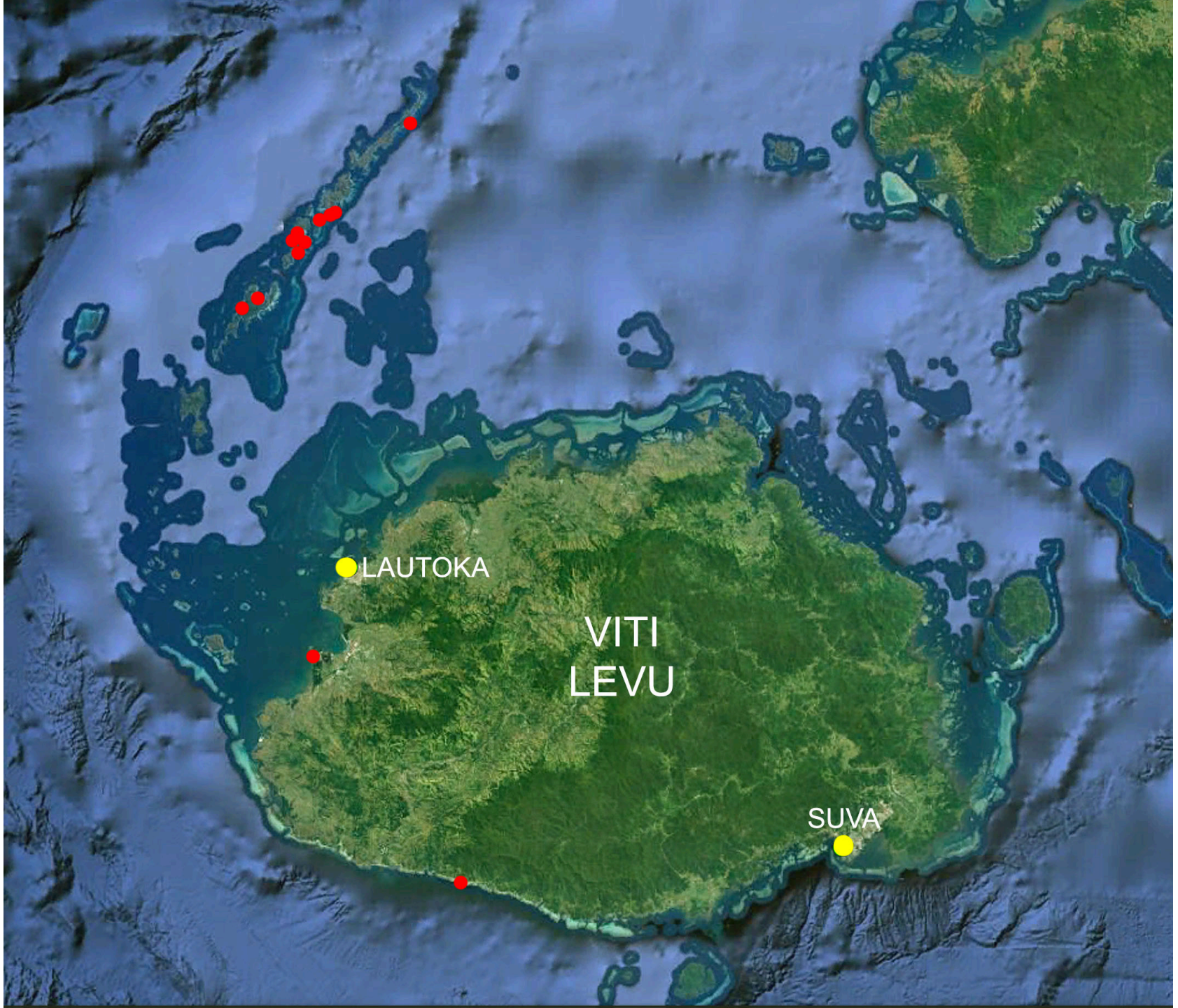
Mörner N-A (2017) Our Oceans − Our Future: New evidence-based records from the Fiji Islands for the last 500 years indicating rotational eustasy and absence of a present rise in sea level. ***International Journal of Earth & Environmental Sciences***, 2: 137. https://doi.org/10.15344/2456-351X/2017/137

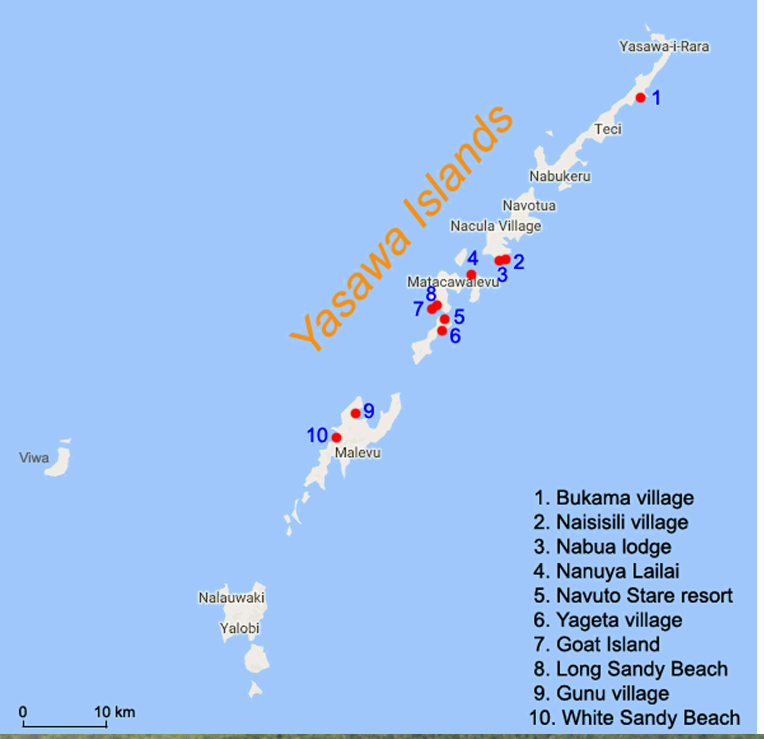
About the Indian Ocean:

Mörner N-A (2017) Coastal morphology and sea level changes in Goa, India, during the last 500 years. ***Journal of Coastal Research,*** 33: 421-434.

This concludes
the general report of sea level changes during the 500 years

Now over to
Examples of the field evidence behind the previous conclusions


LAUTOKA
VITI
LEVU
SUVA

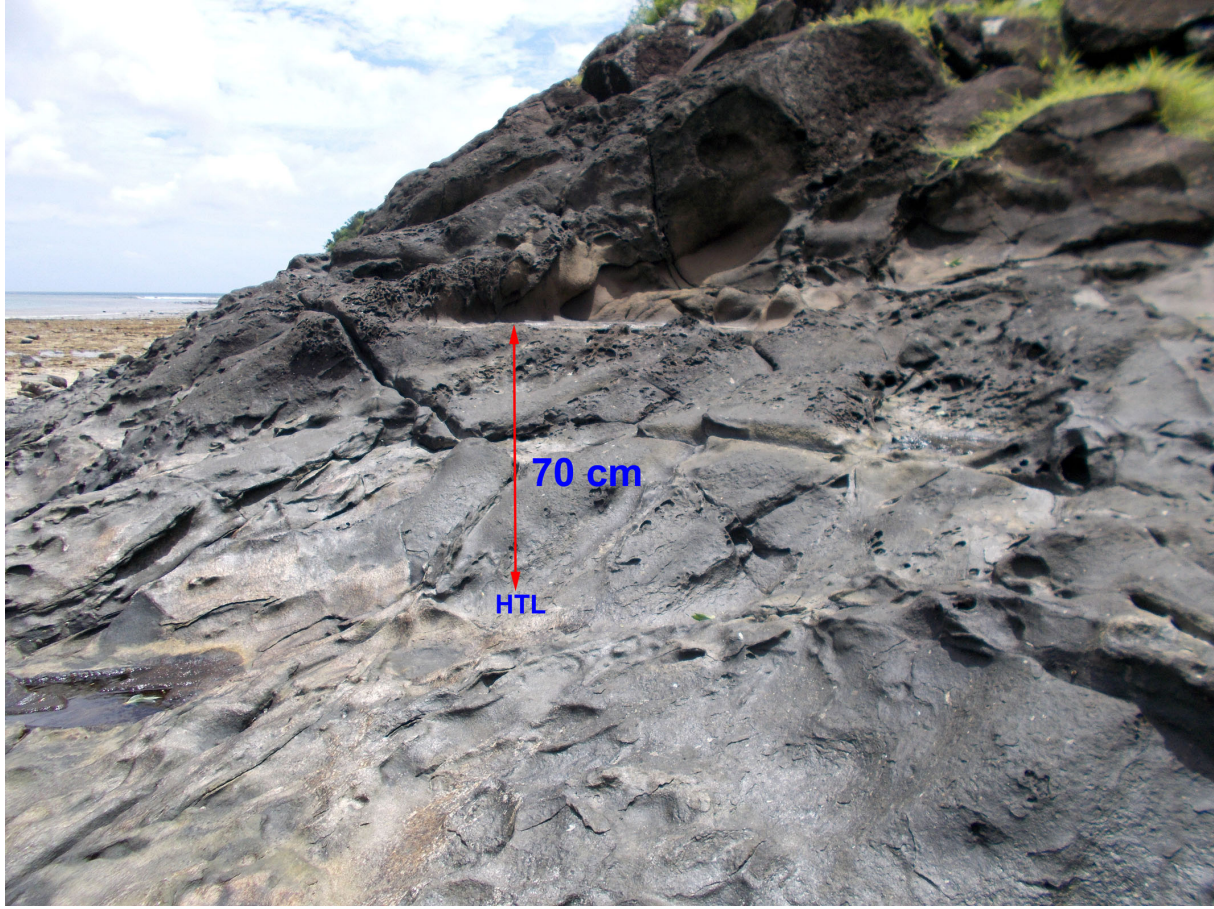


We studied 10 sites in the Yasawa Islands

The high tide level (HTL) is very clear and easy to define with high precision

Rock-cut notch at +70 cm

present HTL

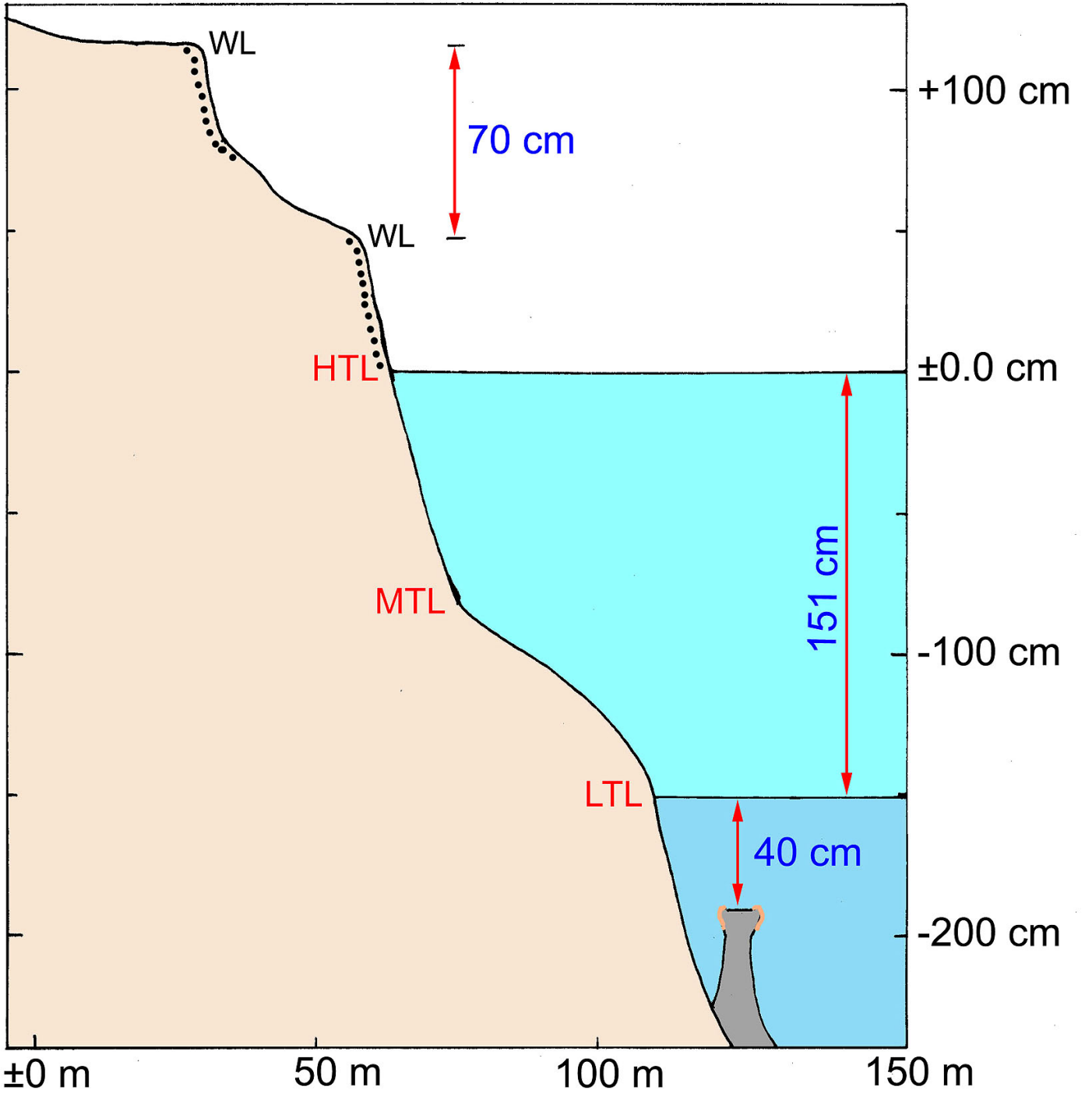


Present sea level: HTL

Rock-cut platform

Under cut notch

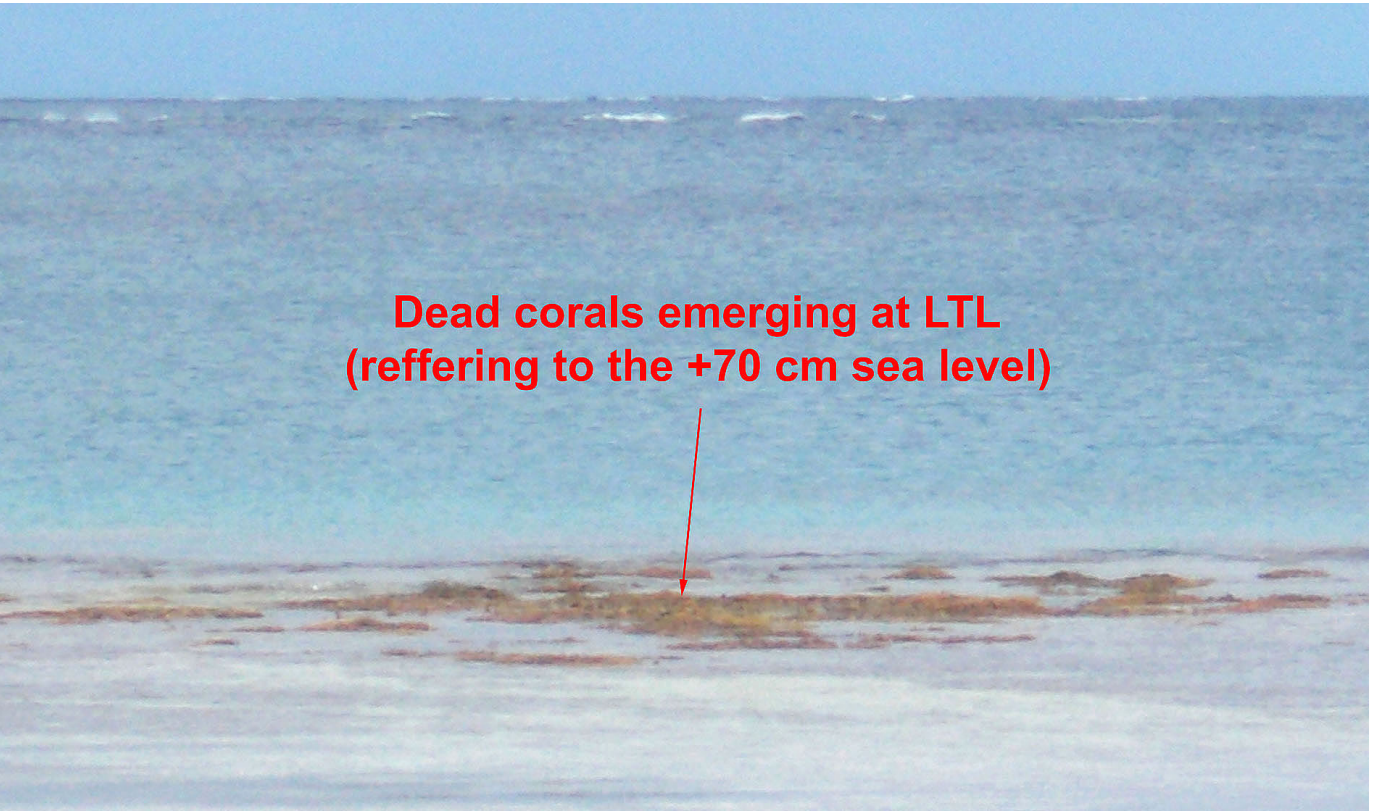
Sandy shore HTL



+70 cm old beach
calAD 1601 ±143

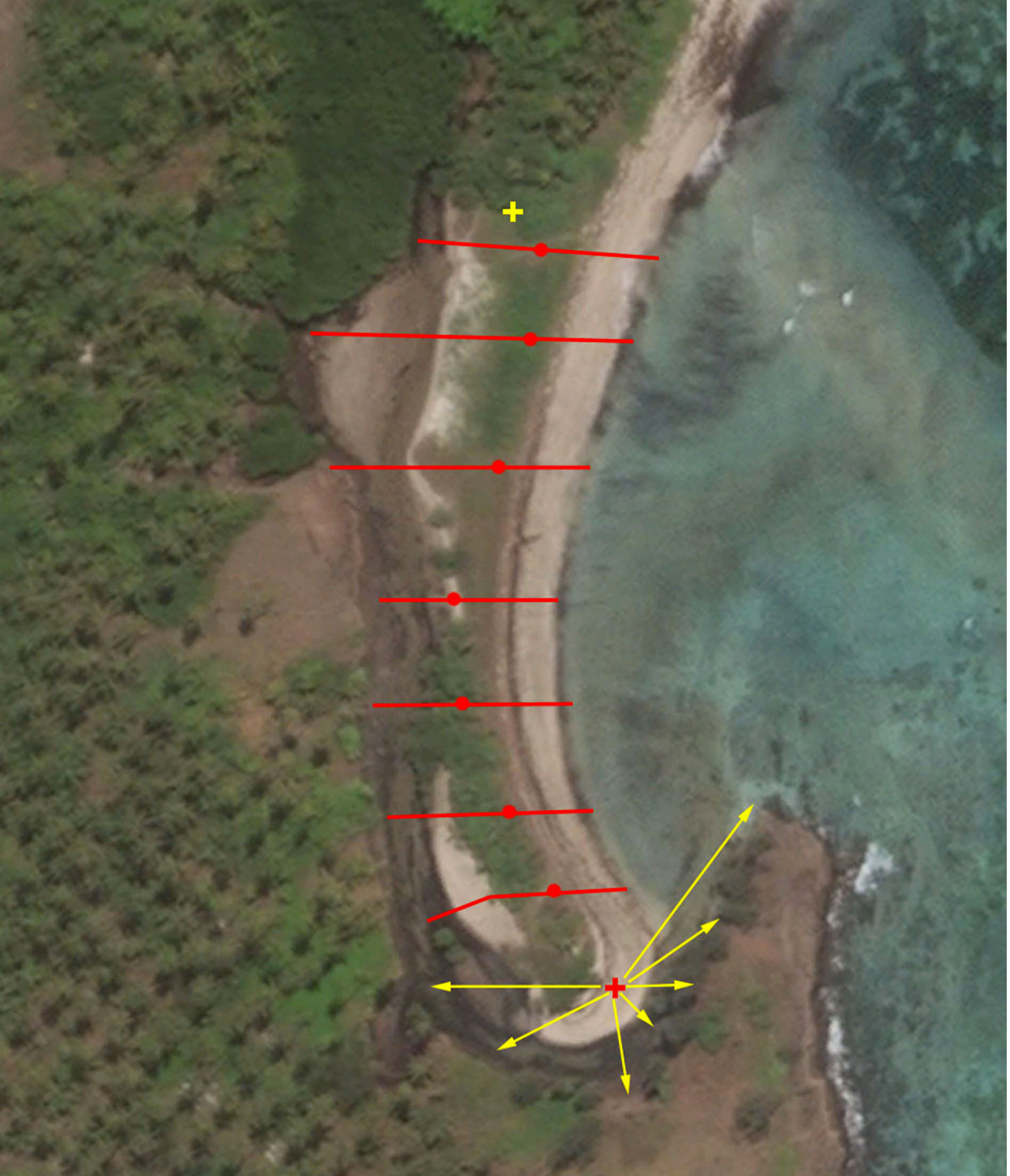
present beach

microatoll
at stable sea level
younger than 1950



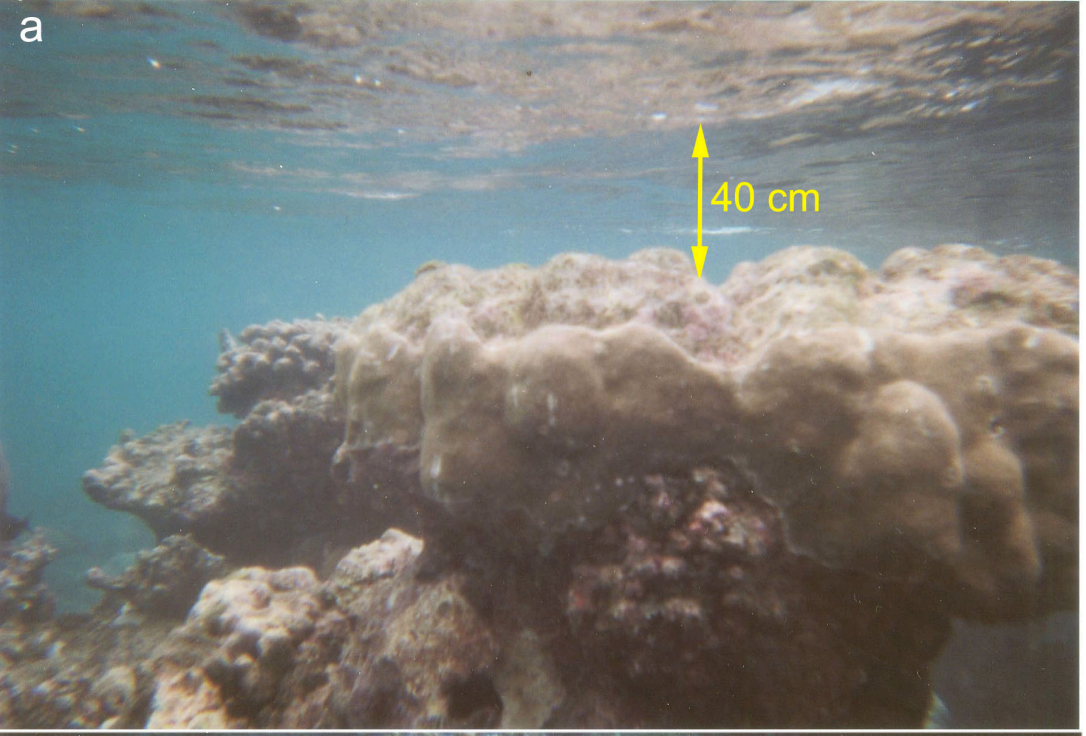
Former HTL
now at LTL

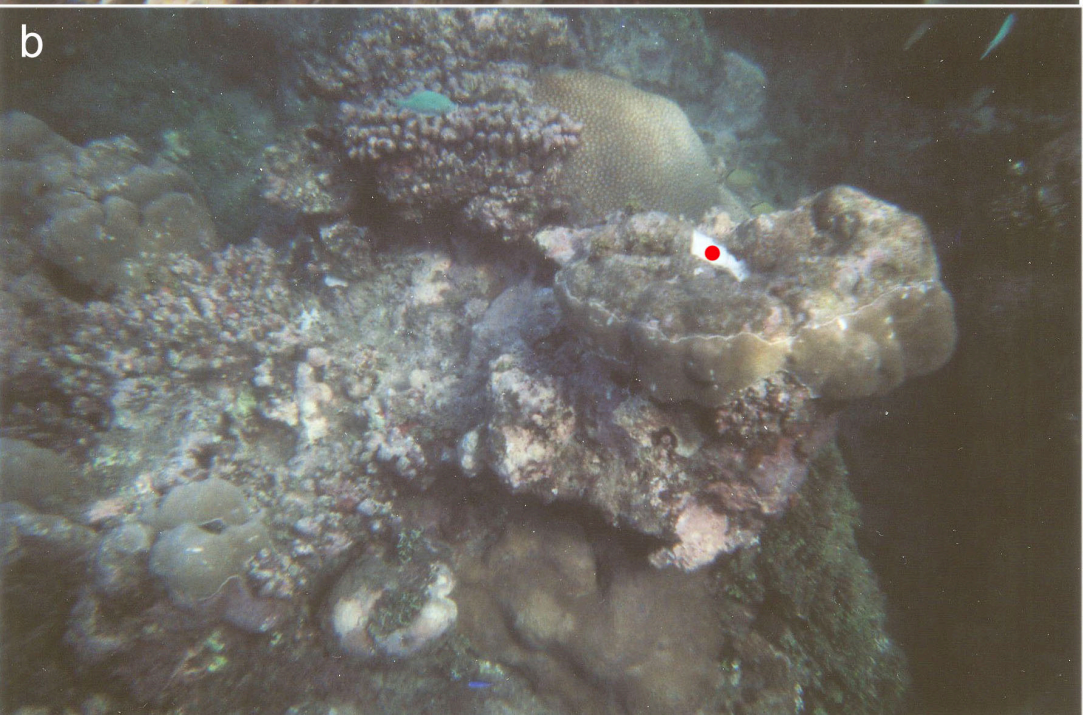
Former coral reef
now above LTL
and trimmed into
a rock-cut platform



+ = C14-date
calAD 1866 ±82

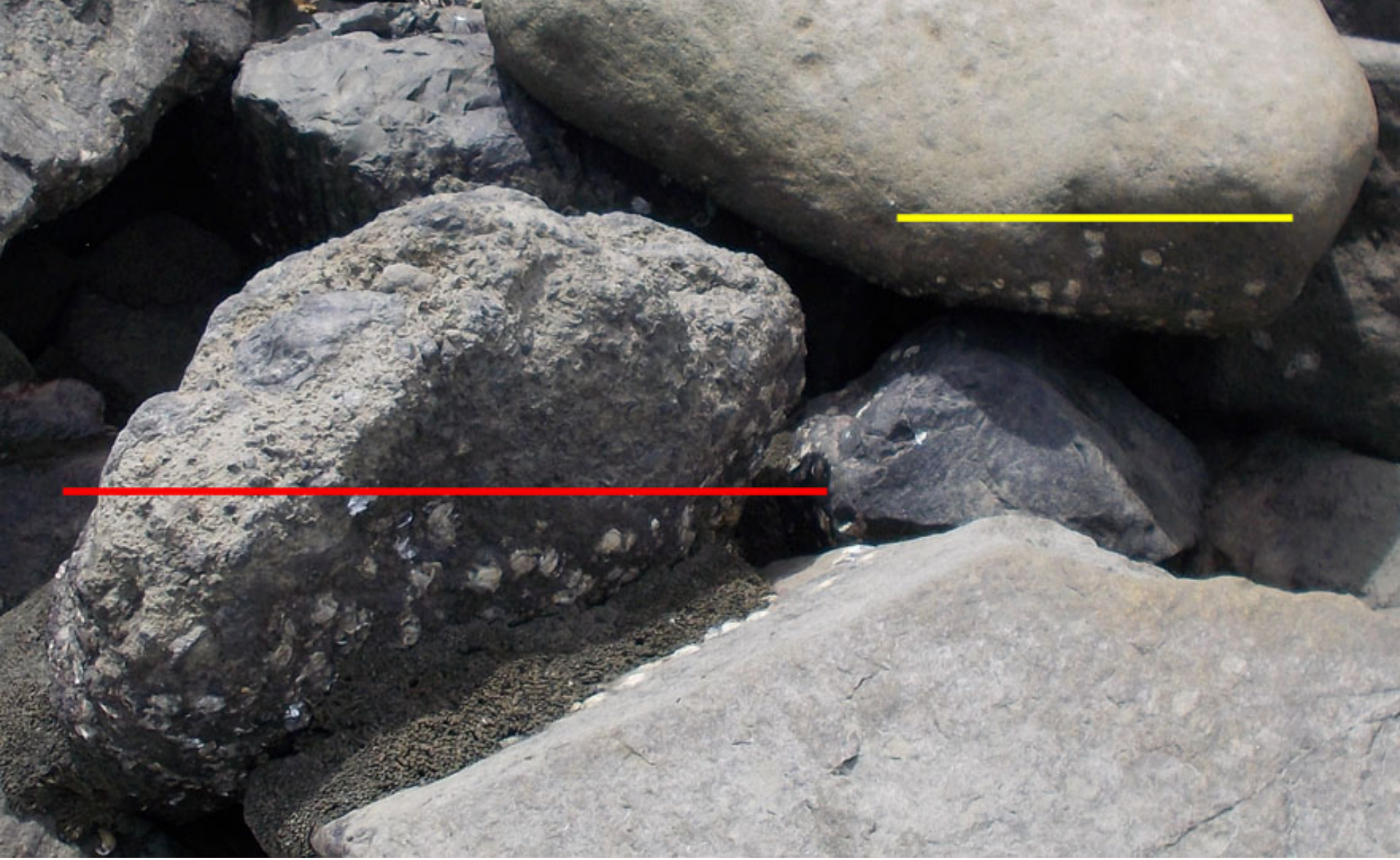
A 155 m long shore spur
built out by 1.0 m/year
at a constant sea level.





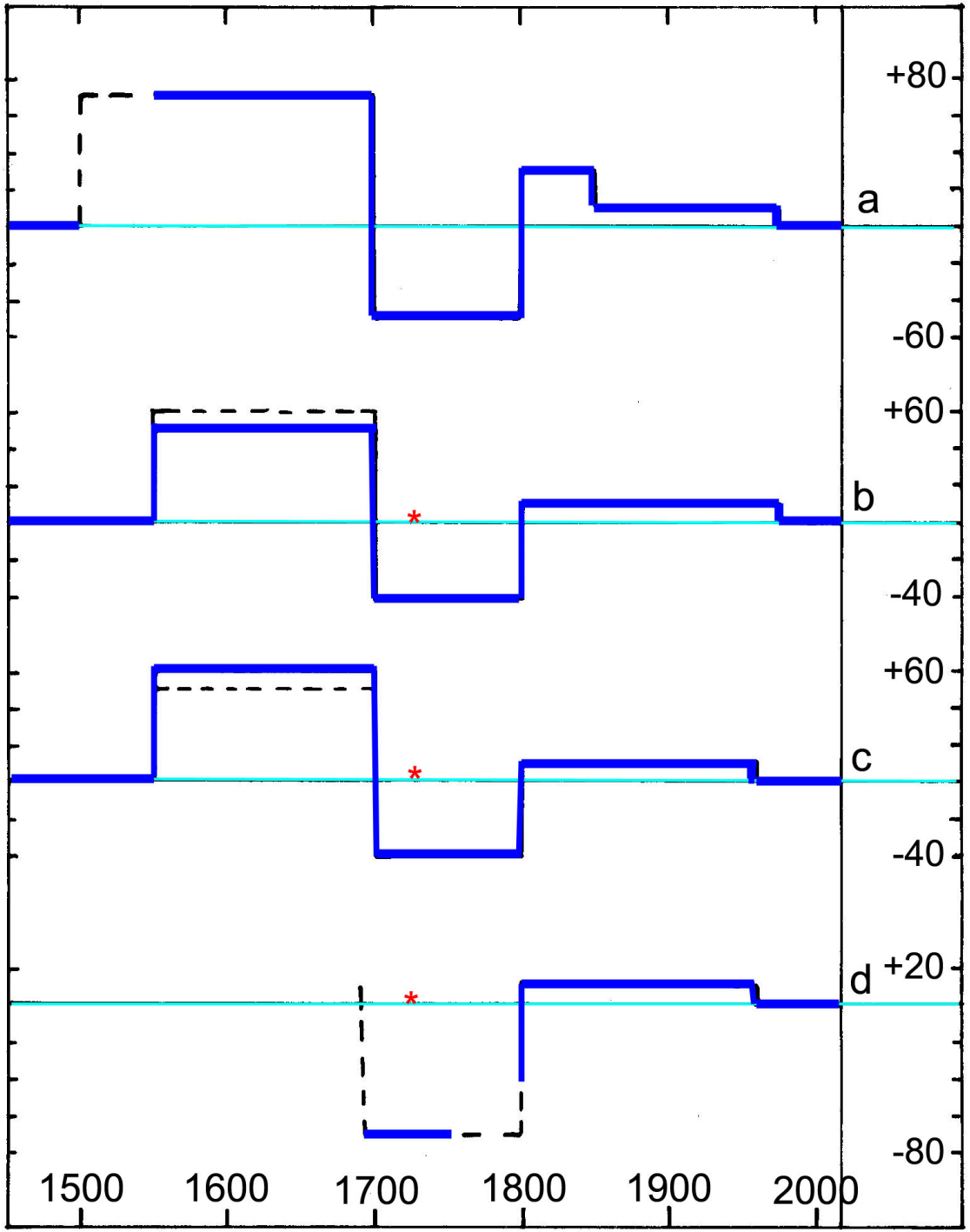
Microatoll
at a 40 cm below LTL
implying coral growth
at constant sea level

C14-date of dead centre
= younger than 1950
indicating a sea level lowering
after 1950
and stable sea level conditions
after that



Record of a probable sea level lowering of about 10-20 cm
Yellow line = limit of dead shells
Red line = limit of living shells

Sea level changes



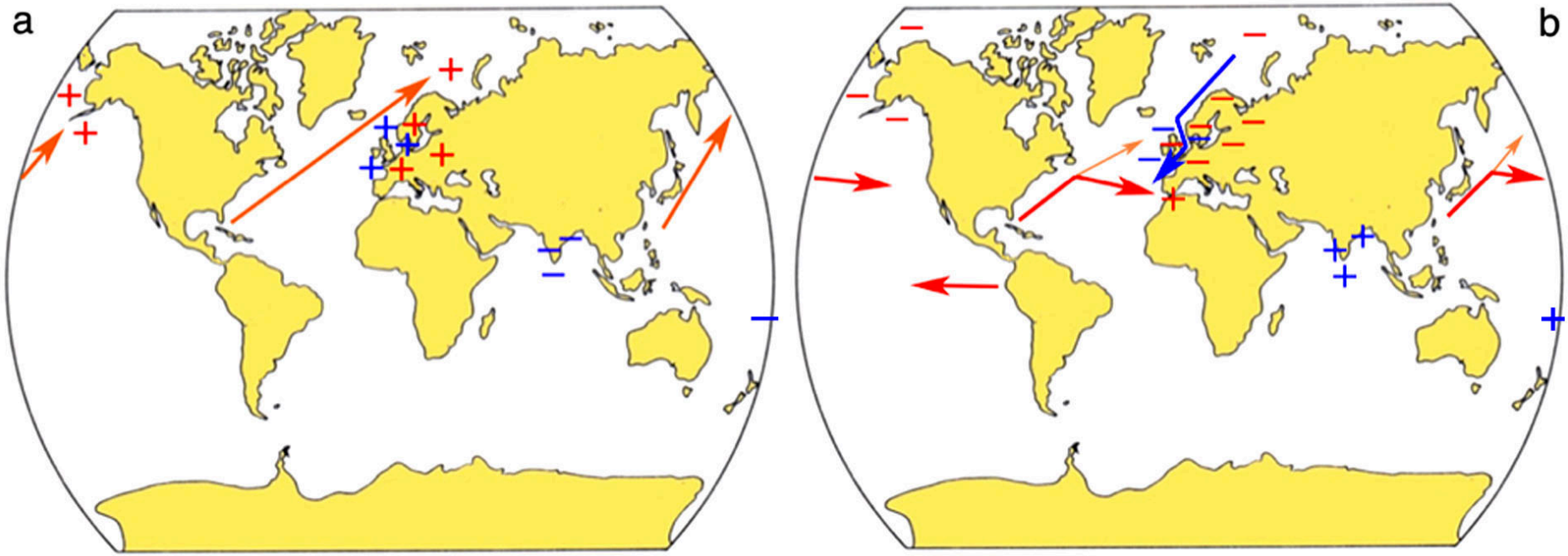
in the Fiji Islands

in the Maldives

in Goa, India

in Bangladesh

Rotational Eustasy



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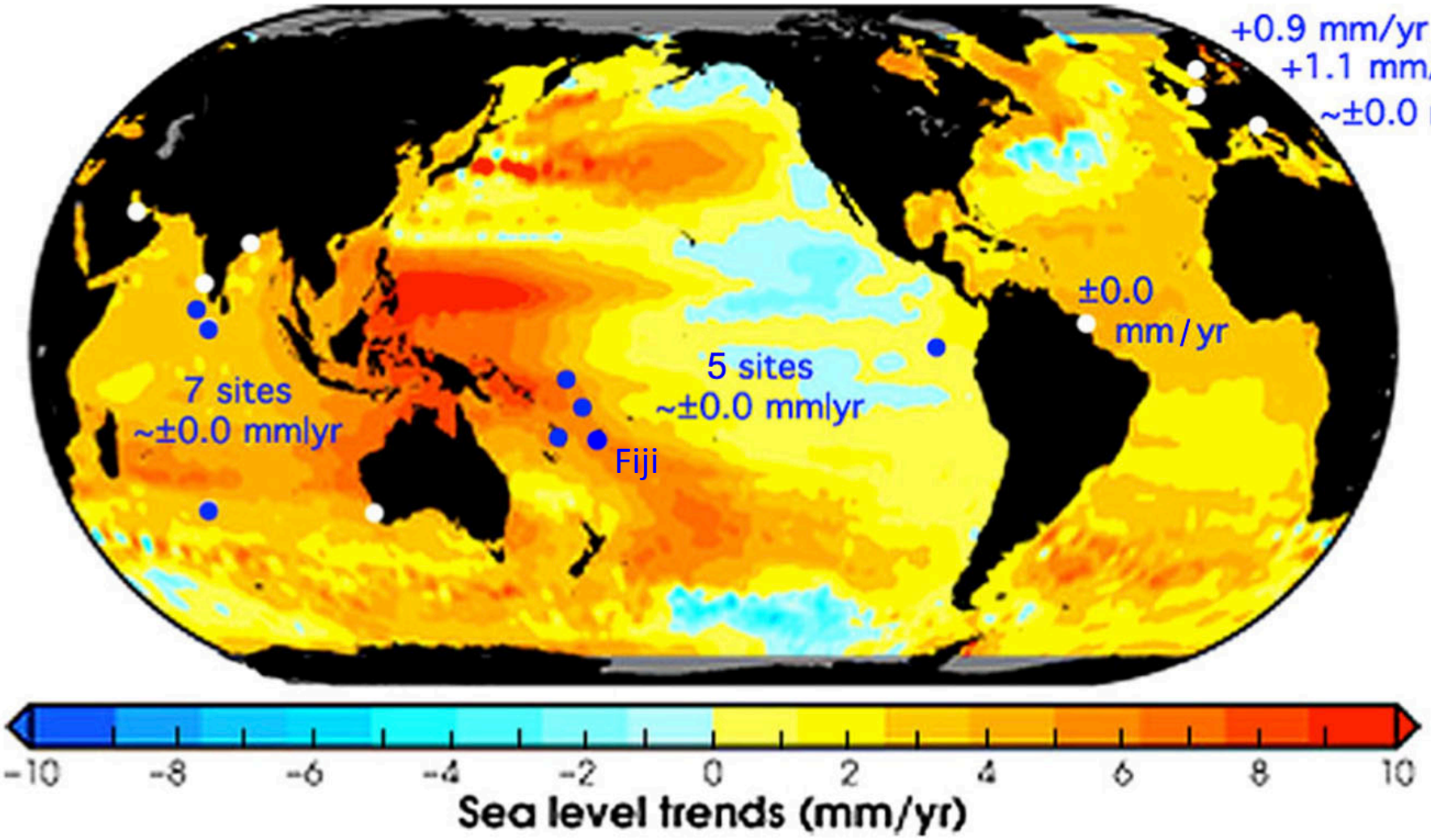


Key sites in the Indian Ocean, the Pacific, the Atlantic, the Mediterranean, the North Sea and the Kattegatt with regional eustatic sea level values plotted on the NOAA map of sea level changes from satellite altimetry. **At no point**, the observational facts agree with the satellite altimetry rates.

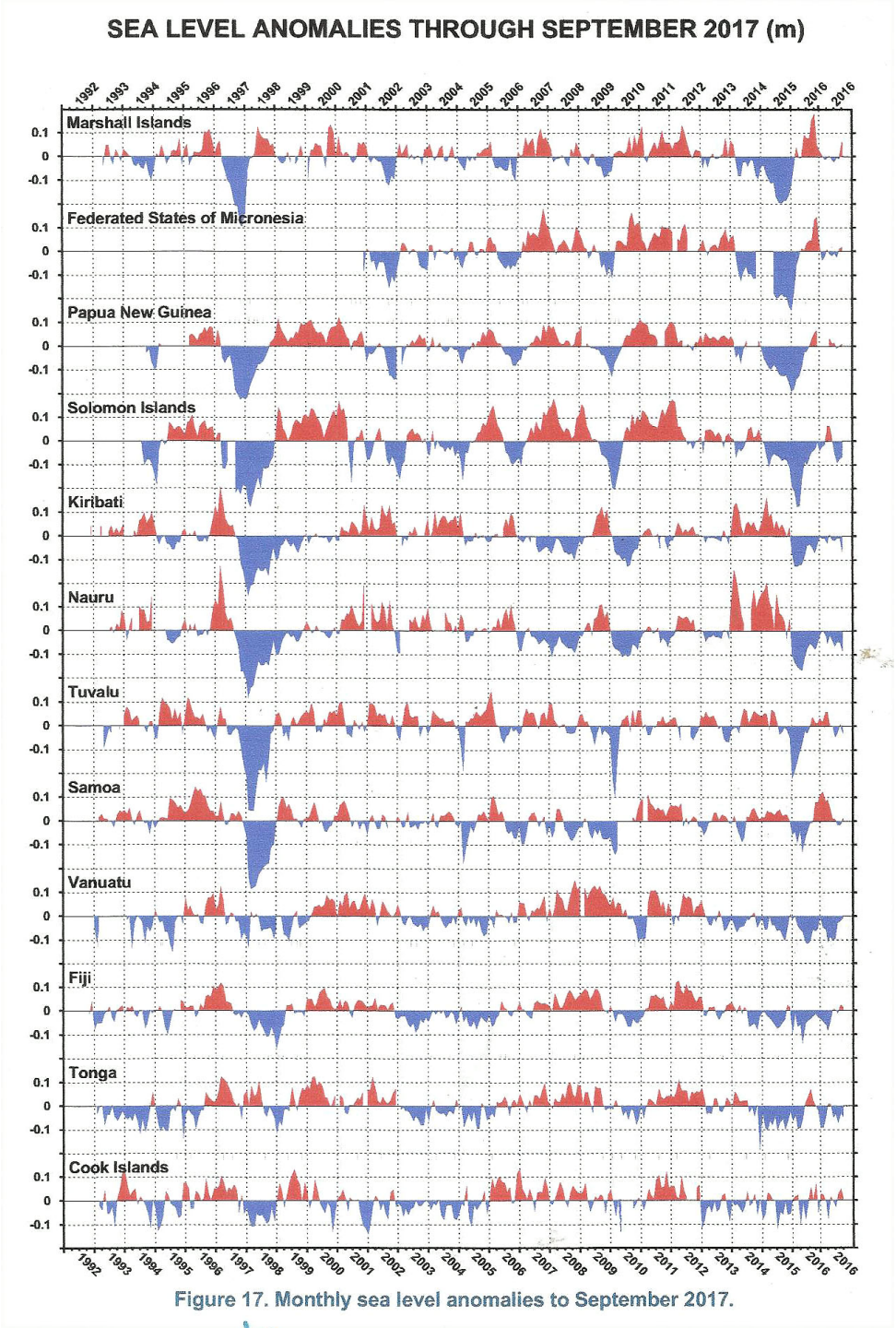


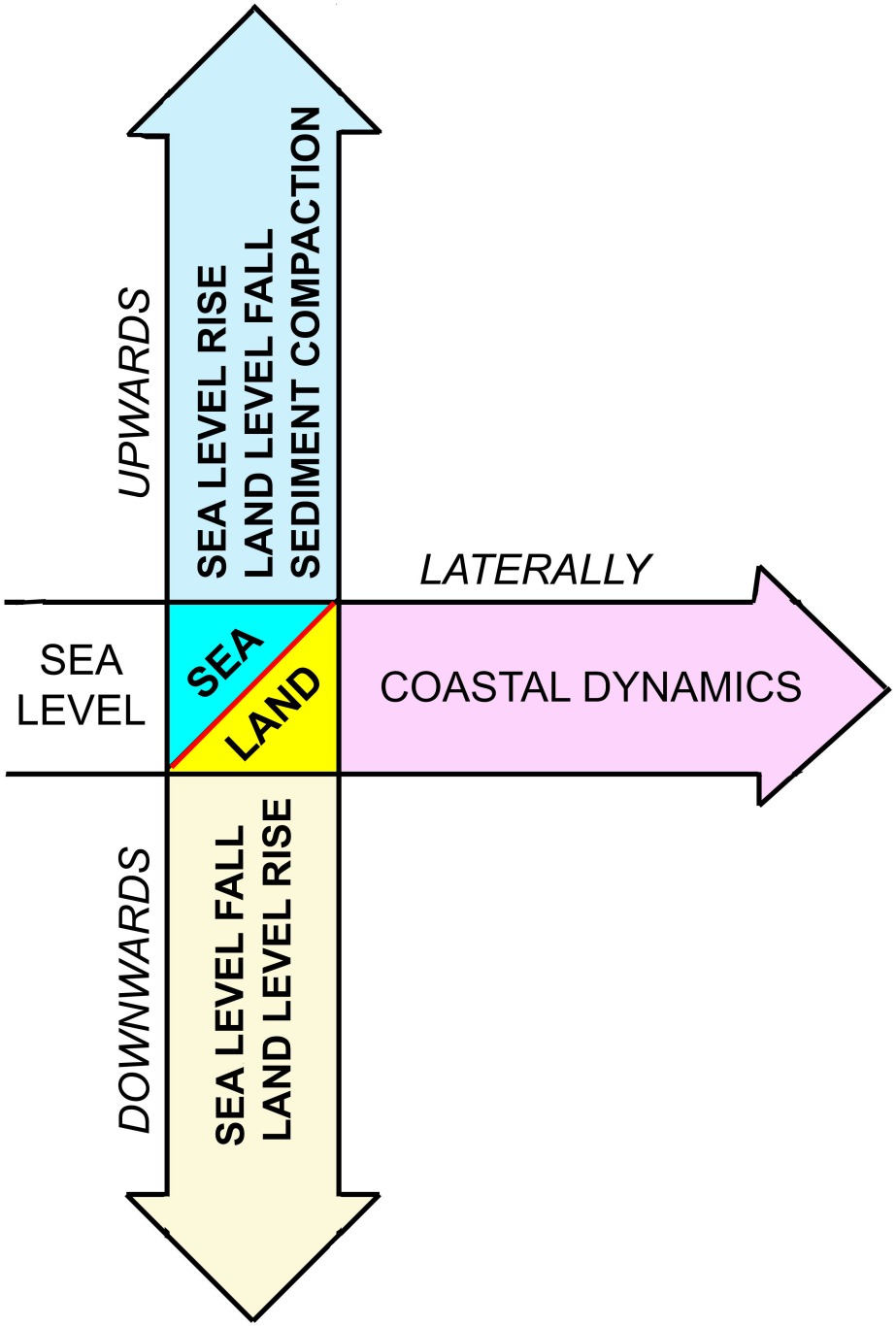
Figure 17. Monthly sea level anomalies to September 2017.

All these Pacific sites
record
Sea Level Variations
ups and downs
but no trends

implying that all talk about
a general sea level rise
is not backed up
by observational facts

but rather the opposite;
sea is not rising

Note the El Niño lows
in 1997/98 and 2015/16
with coral bleaching
but no thermal expansion



Relative Sea Level **rises**

Relative Sea level **stable**
but shore displaced laterally

Relative Sea Level **falls**

from Mörner, 2017, in: *Encyclopedia of Coastal Science*

Our Oceans – Our Future: New evidence-based sea level records from the Fiji Islands indicating no rise in ocean level

Nils-Axel Mörner*, **Pamela Matlack-Klein** and **Willie Soon**

*Paleogeophysics & Geodynamics, Stockholm, Sweden
morner@pog.nu

Reference:

1. **Our abstract**, including image and references. https://www.researchgate.net/publication/316286383
2. **Our ppt-file**: uploaded on ResearchGate, October 15.

The full paper: Mörner (2017). Our Oceans − Our Future: New evidence-based records from the Fiji Islands for the last 500 years indicating rotational eustasy and absence of a present rise in sea level. *International Journal of Earth & Environmental Sciences*, 2: 137. https://doi.org/10.15344/2456-351X/2017/137