

A close-up photograph of a wood shaper's hands. The shaper is wearing a white t-shirt and a dark blue patterned apron. One hand rests on a large, light-colored wooden workpiece, while the other hand holds a blue-handled tool, possibly a hand plane, which is shaving a thin, light-colored wood shavings strip from the workpiece. The background is softly blurred, showing a workshop environment.

A Shapers  
Tale



• California



←  
Ecuador

ANNO  
2005

# The surfer



Estefan surfs since the age of 19 years.

His brother once said:

»You figure out every tiny ding on your surfboard and then you repair it so perfectly«

Since he was a child, he had an awareness for minority groups .

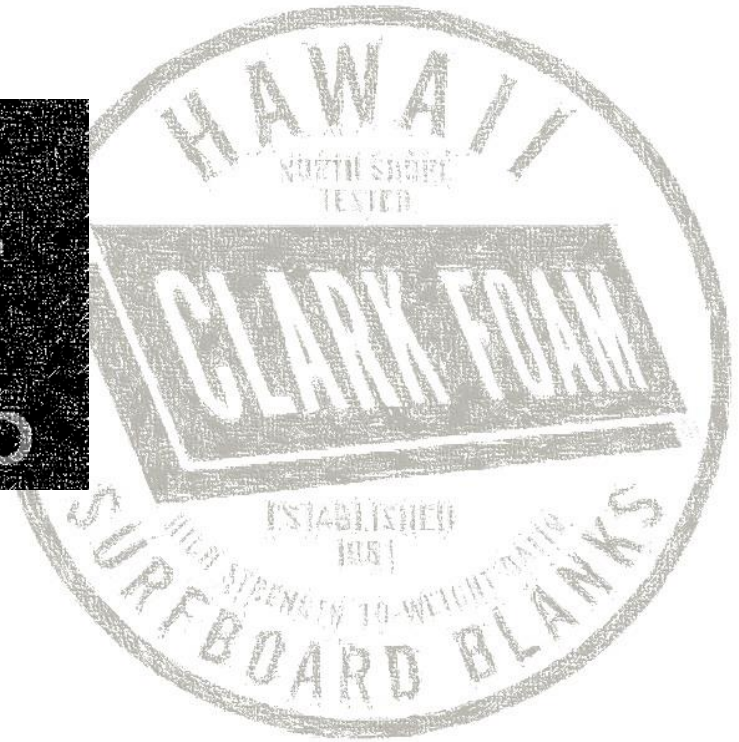
Sustainability, and Fairness came more and more to his consciousness during the years.



# Collapse of Surfboard-industry



THIS IS  
NOW  
forever  
CLOSED



"For decades "Clark Foam" was nearly the only provider of blanks.

Four Reasons Why  
**MONOPOLIES**  
Are Bad for an Economy




Price-fixing,  
Low-quality products,  
Lack of incentive for innovation,  
Cost-push inflation.

squeeze out competitors



90% of the United States supply  
60% of the world supply  
of surfboard blanks.



- .Reliable
- .Inexpensive
- .Good quality

- .Undercutting prices
- .Stifled upstarts,
- .Withheld shipments

Process and equipment were jerry-rigged affairs.

Clark blew up the surfboard industry.





Reasons for closing:

Difficulties with government-  
regulatory-agencies  
over the chemicals and equipment .

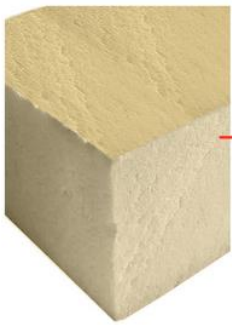
claims against him by former employees.



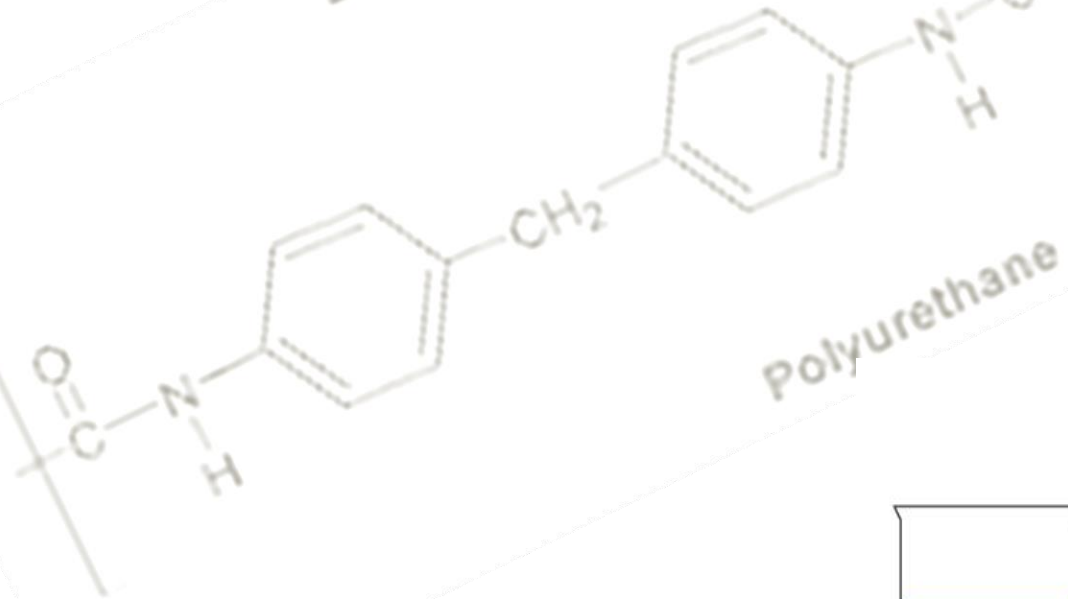
Normal view  
scale 1/1

Magnified view  
scale 1/75

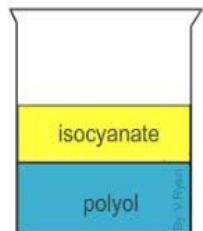
Microscope view  
200 μm



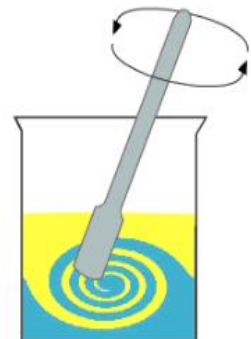
Structure of Polyurethane



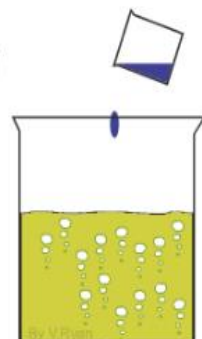
In 1937, Otto Bayer mixed two chemicals, polyol (alcohol) and isocyanate



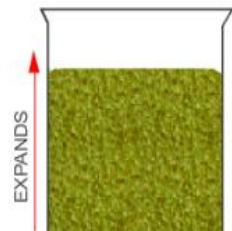
polyol poured into container followed by isocyanate



polyol and isocyanate being mixed



Small amount of water added



Foam rubber the result.



In the 60's,  
PU-foam  
revolutionized  
the surf world



# Dark side of PU

## Duration Problems

- . Short life
- . Hygroscopic tendencies
- . Water absorption characteristics



## Environmental Problems

- Toxic fumes if burned
- . Contains non-renewable fossil fuels
- . Produce greenhouse gases

## Health Problems

- . Toxic fumes
- . allergic reactions,
- difficulty breathing,
- loss of consciousness,
- blindness.





B

A

L

S

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d



.CO2 sinks

- .Outstanding »strength-to-weight« ratio
- .Light & soft timber
- .Pretty high degree of buoyancy
- .Fast growing



Balsa-wood

Absorbs shock and vibration.

Easily to be cutted and shaped.

Gluable with simple hand tools.

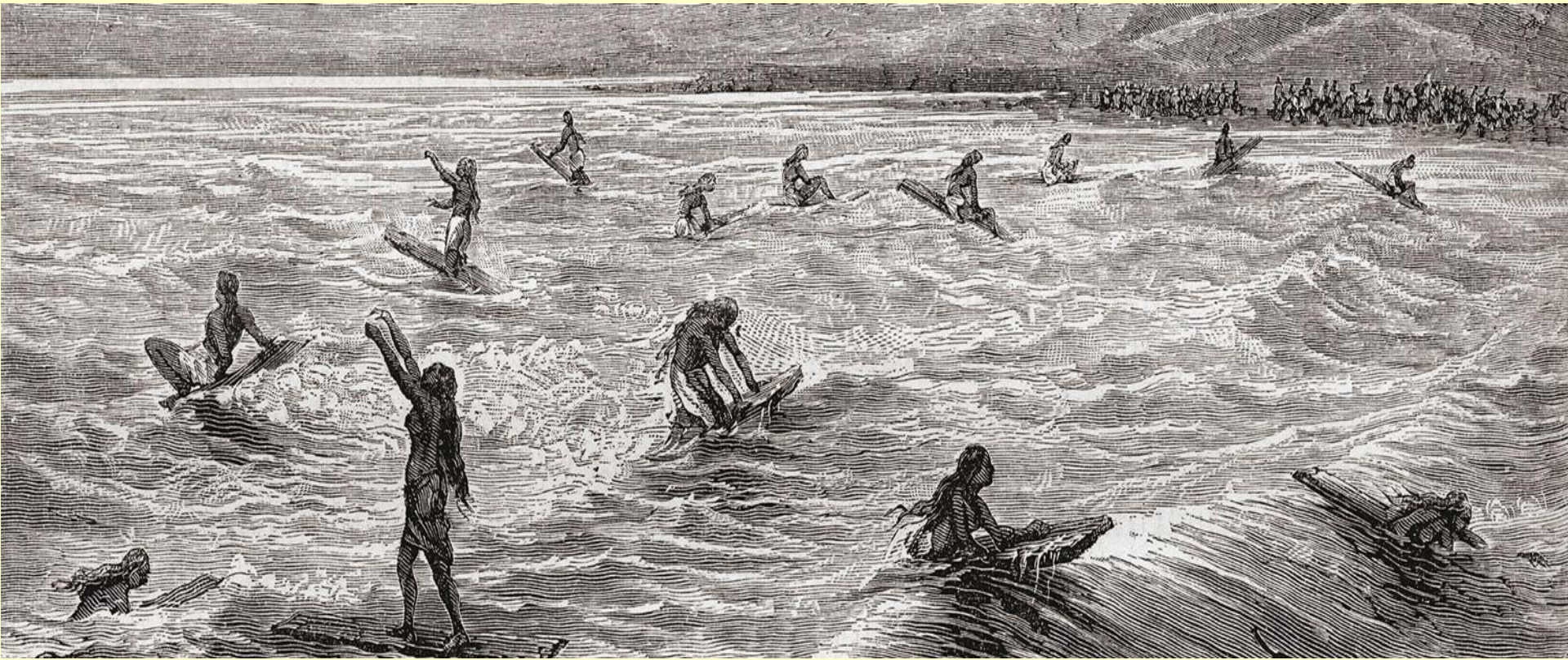


History of  
wooden  
surfboards?



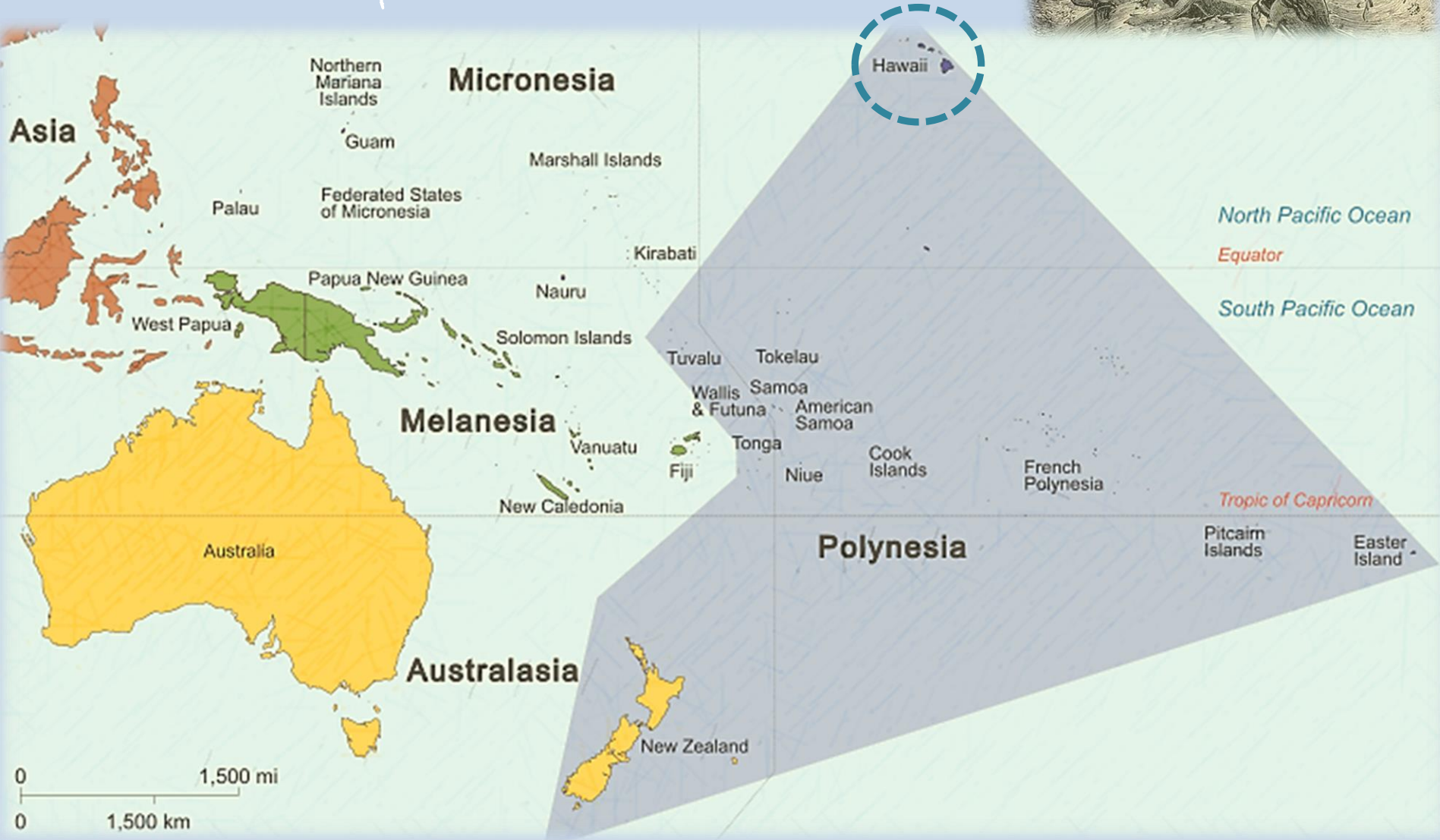
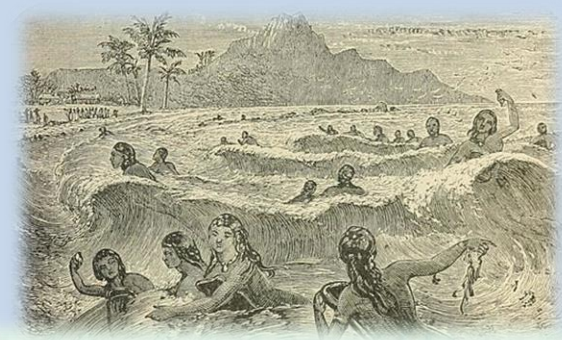






Traditionally  
surfing has, its origin  
around 3.000-1000 years BC

Surfing has its roots in the heart of Polynesian culture, in the South Pacific and Micronesia





And its practice was almost forced for the royalty.

Surf was »the sport of the kings «

Tenían 3 tipos de  
tablas:

OLO  
(12 foot +)



ALAIA  
(5-8 feet)

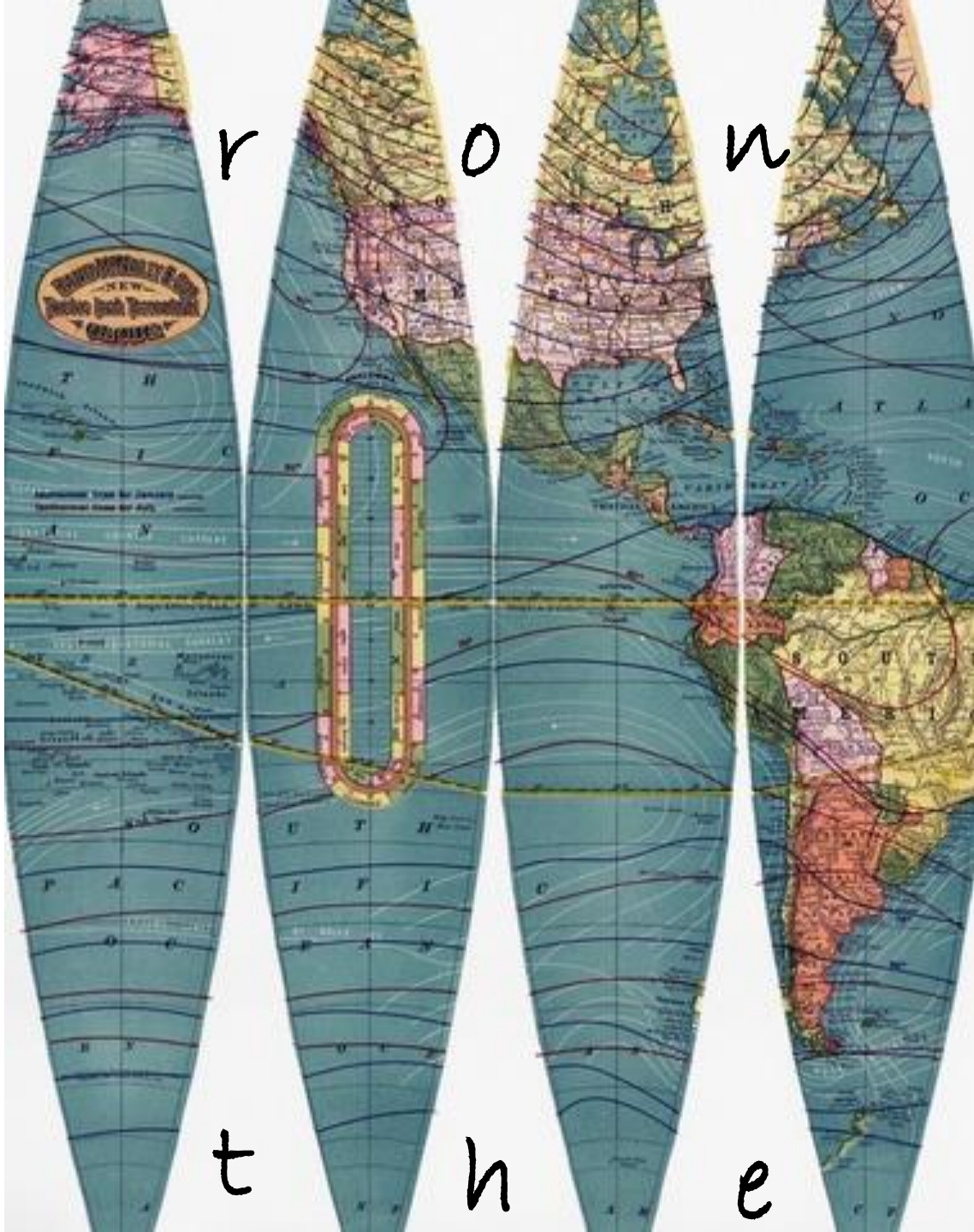


KIKO'O  
(8-12 feet)



a r o n d

S  
K  
R  
F



W  
O  
R  
L  
D

t h e



With the arrival of Christianity came the overthrow of the native Hawaiian Culture.

The laws governed interactions involving people, nature and the gods for hundreds of years.

The result was an overwhelming change in social structure and lifestyle

In 1778, Captain James Cook saw surfers at Hawaii.

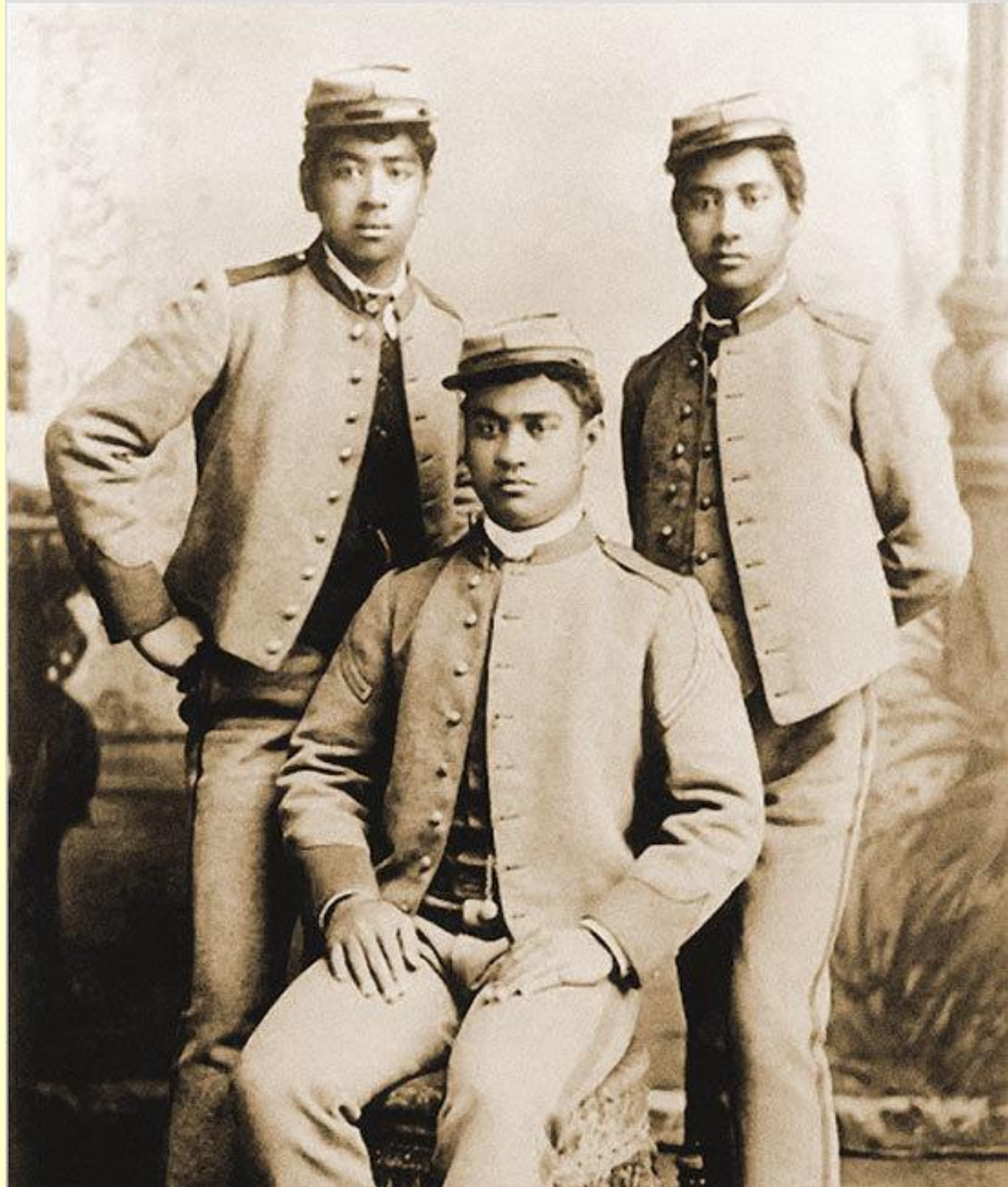
He wrote about surfing in his travel diary.



Summer of  
1885, the  
hawaiian  
princes

Jonah, David  
and Edward

in  
Santa Cruz  
beach.







# RIDING THE SOUTH SEA SURF BY JACK LONDON

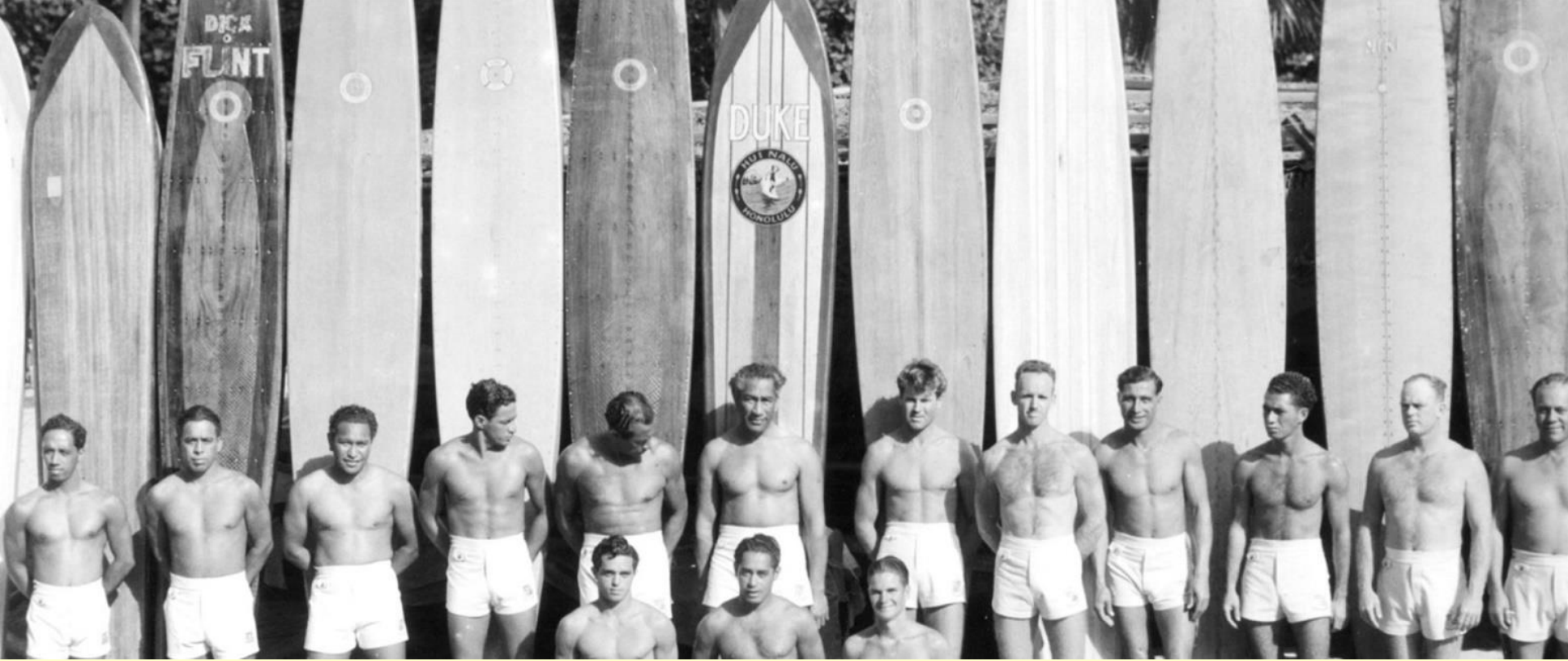


*Annexation of Hawaii in 1898  
Thereafter the lost tribal tradition  
of surfing was revived.*



*Jack London invited the Hawaiian surfer  
George Frith to California in 1907.*





Duke Kahanamoku





In 1915  
tandem  
with  
Isabelle Letham



1914

Olympic swimming  
champion

Duke Kahanamoku  
demonstrate

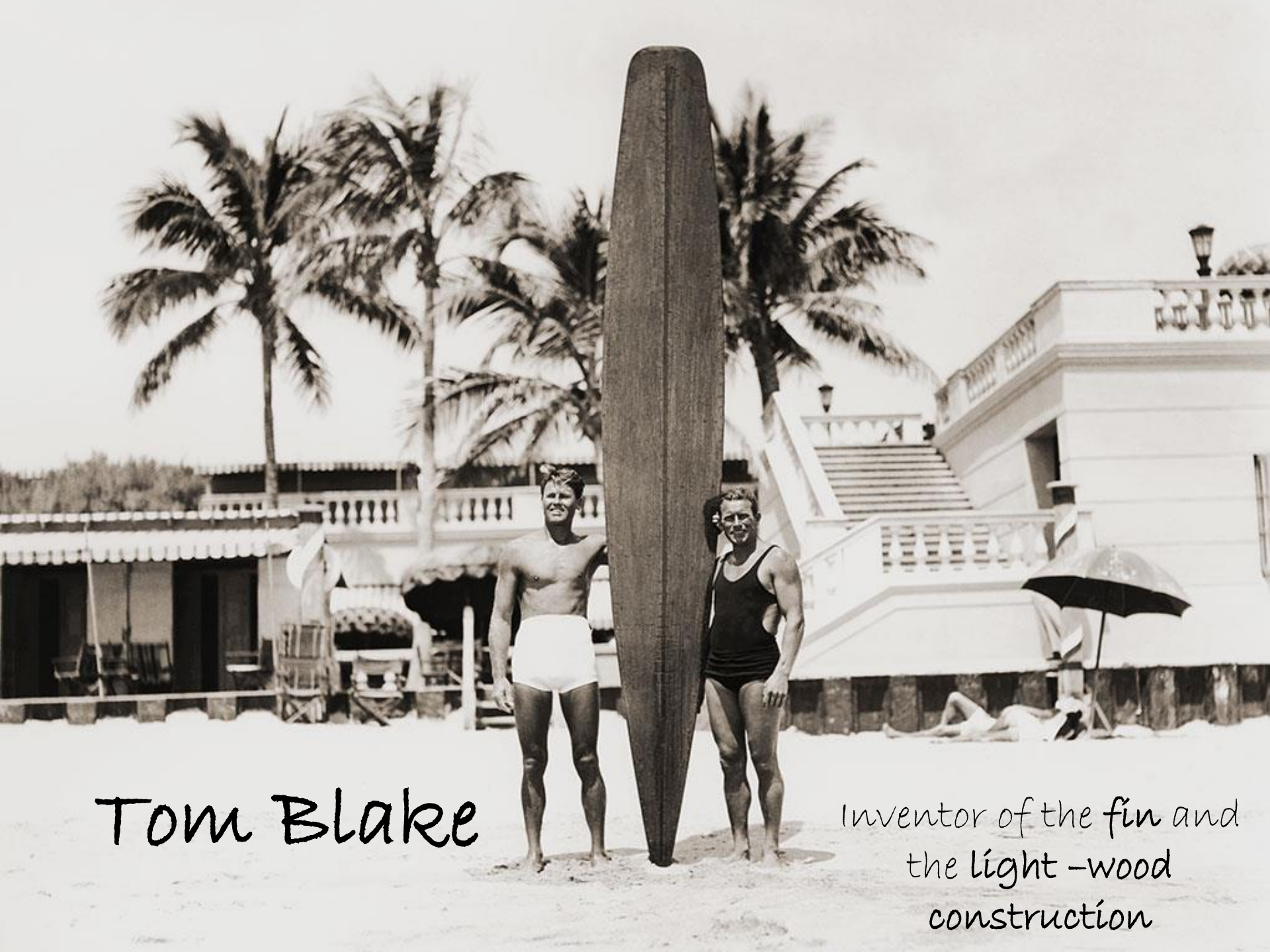
surfing in

Eastern Australia

to in front of

thousands

of spectators.



Tom Blake

Inventor of the fin and  
the light-wood  
construction

MY S.B. CLASS  
O.C.C. WAIKIKI  
1936.  
Tom Blake

HOUSE  
MEN  
SUITS



Tom Elabe

Waikiki -  
via Makua.

A black and white photograph of a man, Bob Simmons, walking on a beach. He is carrying a long, dark surfboard under his right arm. He is wearing dark shorts and is looking towards the ocean. The background shows waves breaking on the shore under a clear sky.

Father of the modern  
surfboards

Bob Simmons



Fins, Fiberglass,  
and a shape  
based on Boat-  
building studies  
evolved  
surfing to  
another level.





# EVOLUTION OF THE SURFBOARD

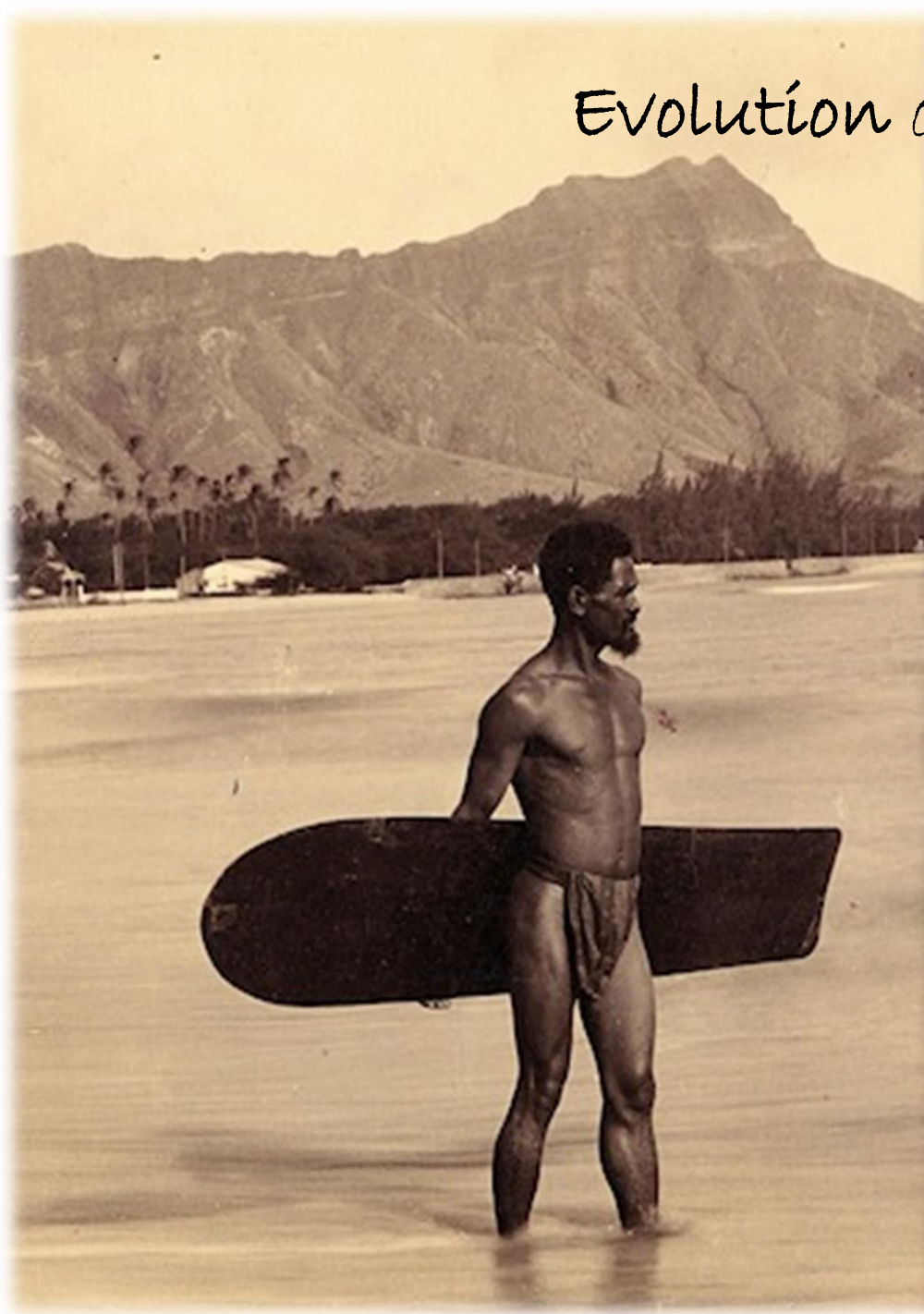


Modern  
Surfboard  
Design

Plastic , composite & industrial production:

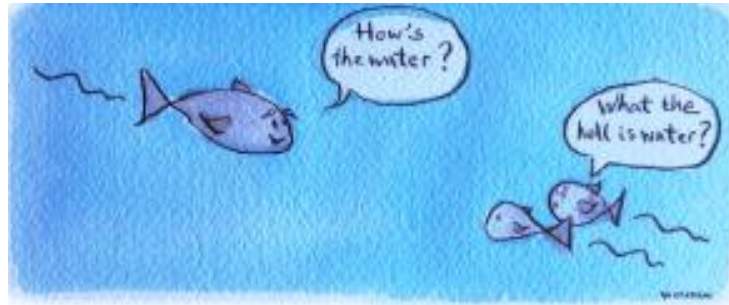
Hand shaped wooden boards were replaced by blanks made of chemical foam and polyester resin.

# Evolution or Extremeness?





There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says



«Morning boys. How is the water?» And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes,

«What the hell is water?»

David Foster Wallace

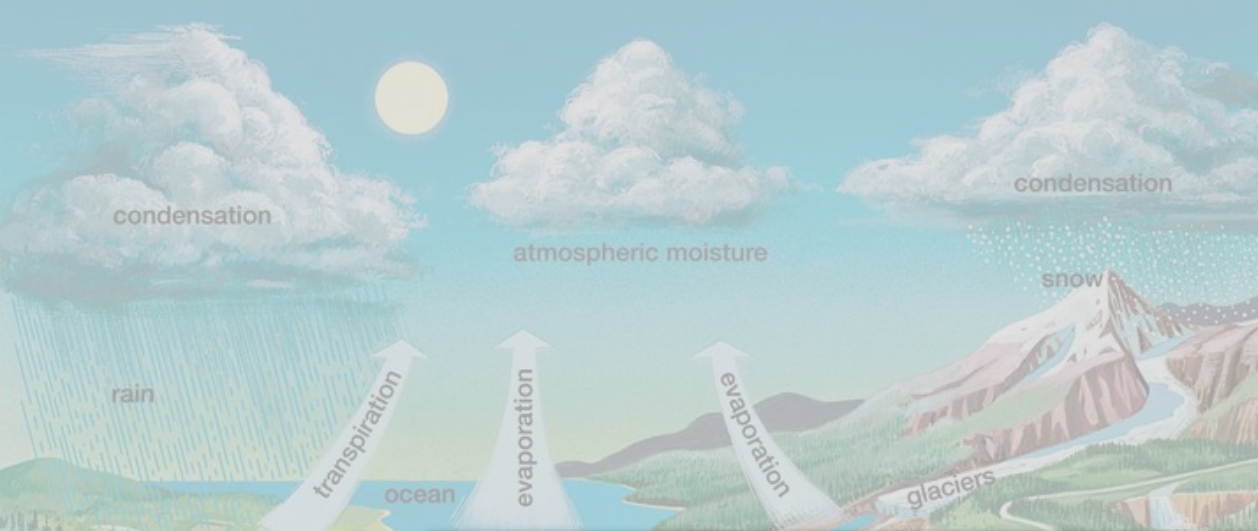
The most obvious, important realities are often the ones that are hardest to see and talk about.



## Environmental crisis

changes to the environment of a species or population and destabilizes its continued survival.

increase of temperature,  
less significant rainfalls,  
overpopulation

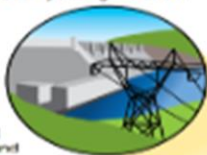


**FLOODS**

An increase in extreme weather will lead to higher winter river flows, runoff and flooding.



Changes in flow decrease clean power generation.



**SNOWPACK**  
A 25% reduction of snowpack will change water supply.

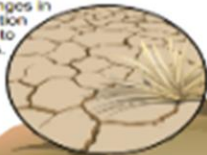


**RIVER FLOW**  
Changes in river flow impacts water supply, water quality, fisheries, and recreation activities.



**DROUGHT**

Higher temperatures and changes in precipitation will lead to droughts.



**AGRICULTURE**

Increased demand for irrigation.



**GROUNDWATER**

Lower water tables due to hydrologic changes and greater demand cause some shallow wells to go dry.



**WATER USE**

Demand for agriculture, urban and



**DELTA LEVEES**

Sea level rise will threaten Delta levees.



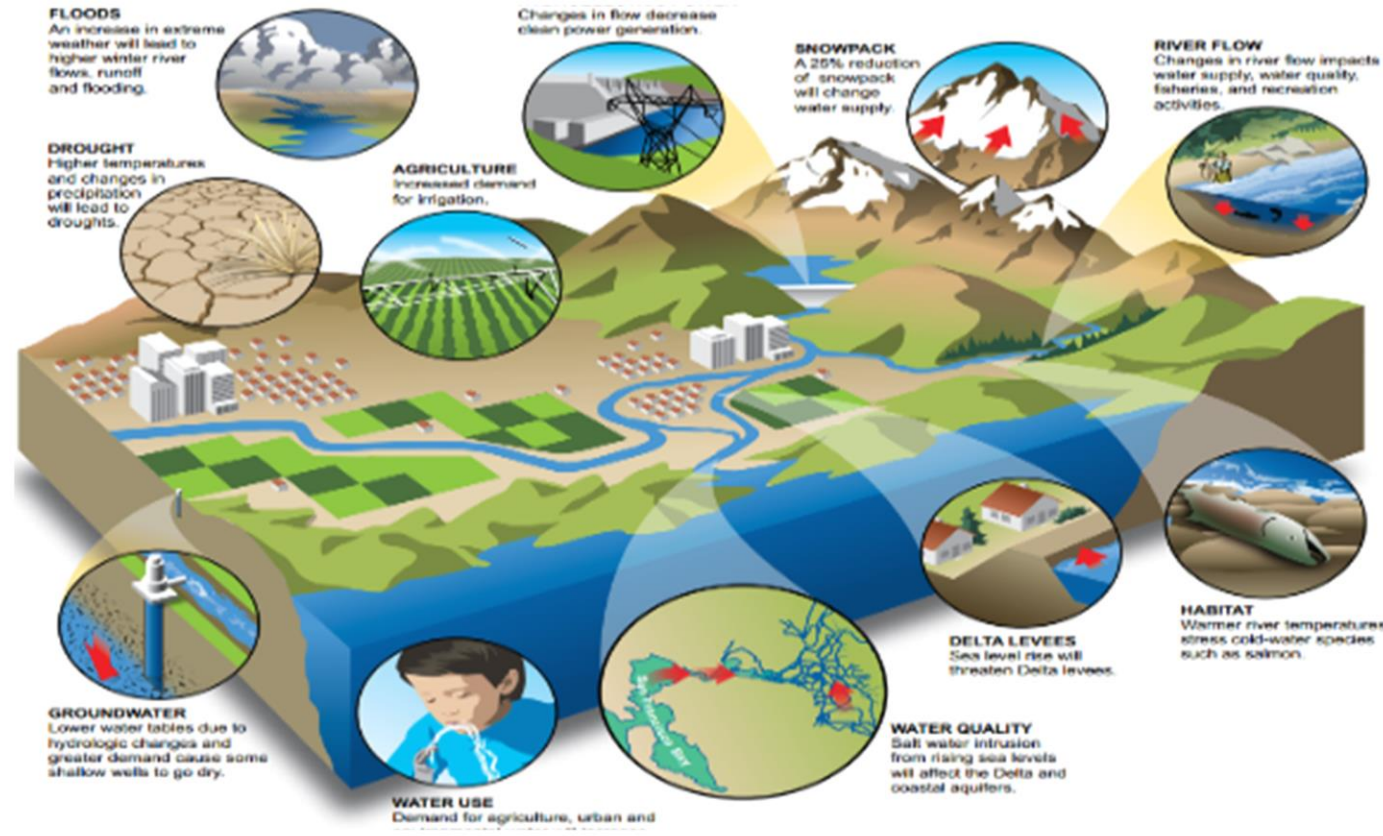
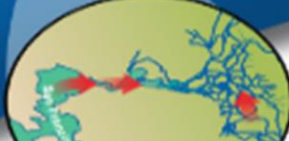
**HABITAT**

Warmer river temperatures stress cold-water species such as salmon.

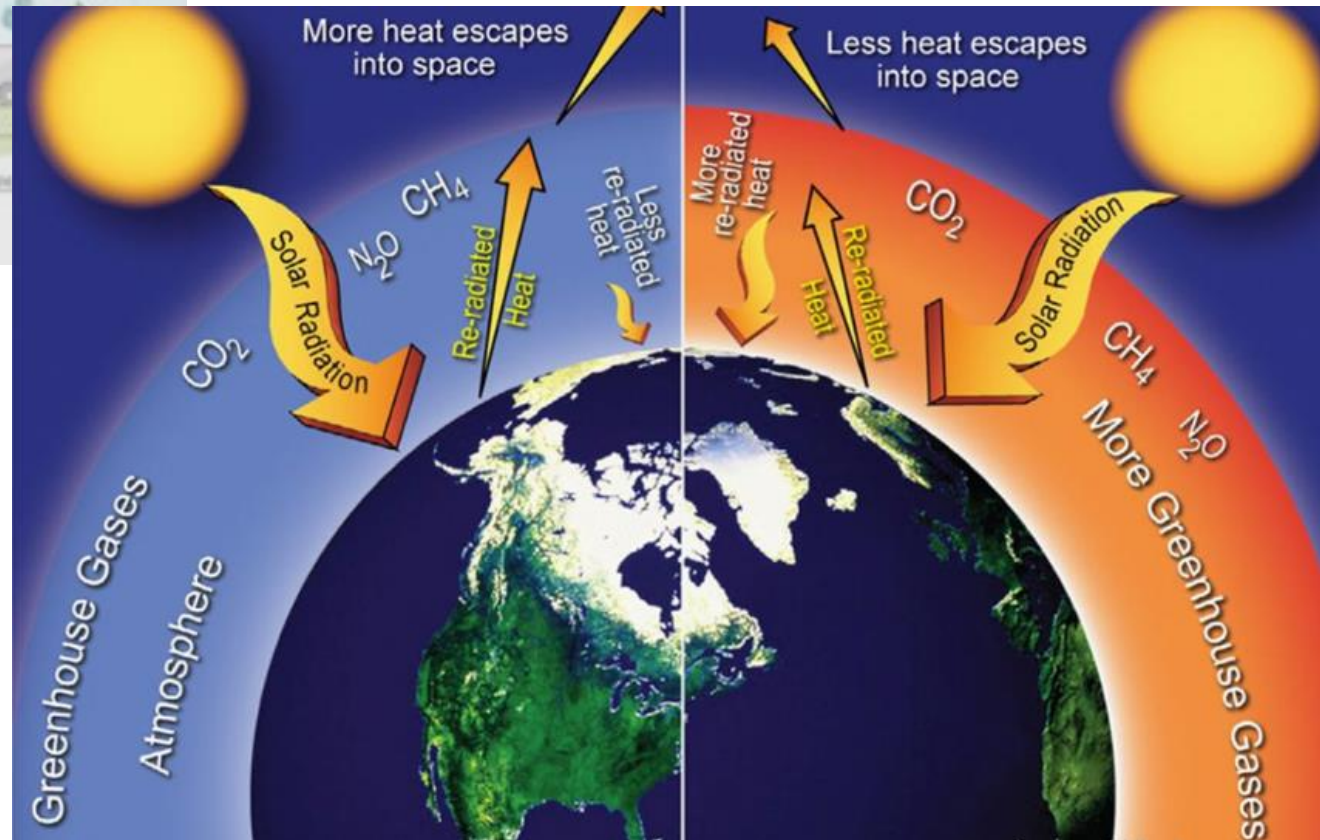
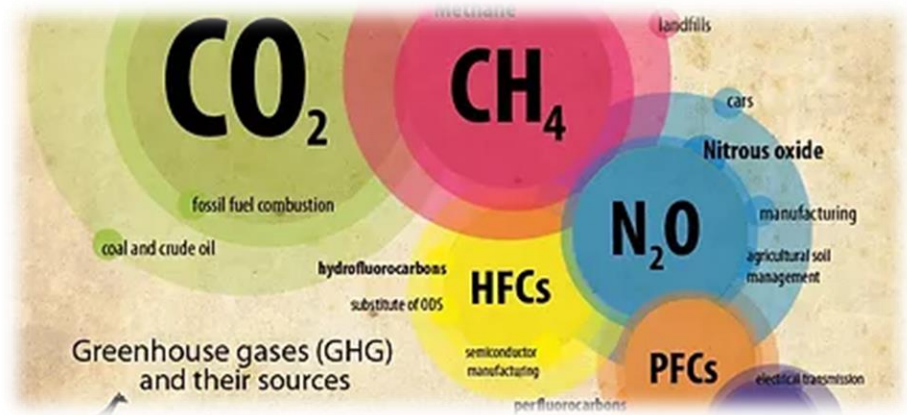
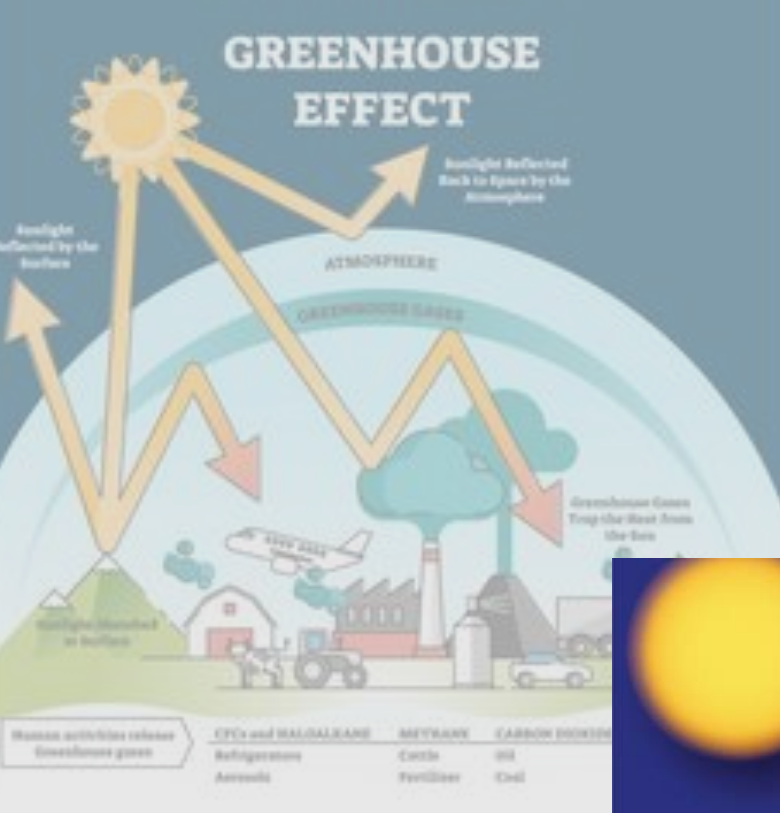


**WATER QUALITY**

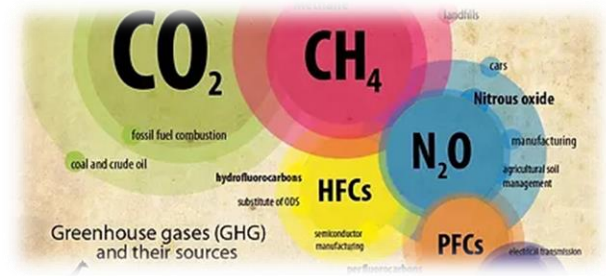
Salt water intrusion from rising sea levels will affect the Delta and coastal aquifers.





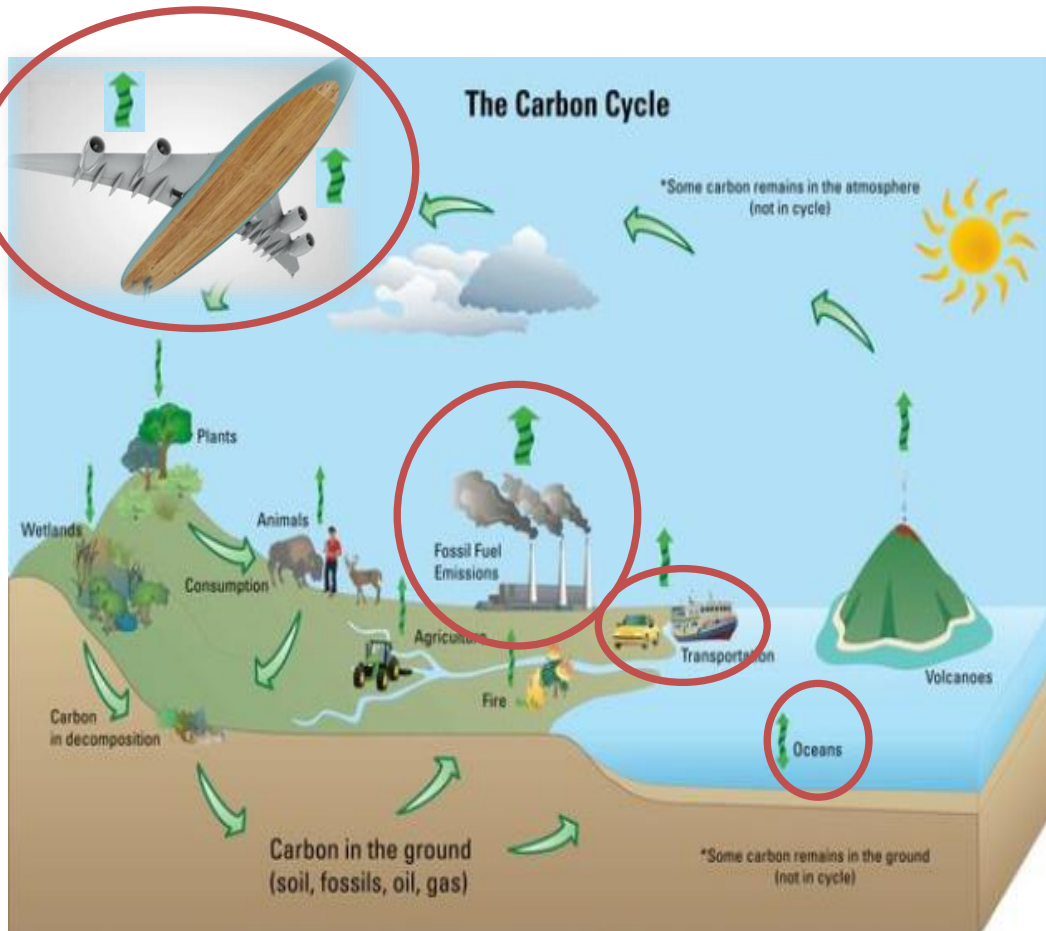


# Greenhouse gas emissions...



...and the link to surfing:

- .Emissions by producing Boards, Neopren and other Equipment
- .Emissions when broken Gear cannot be recycled
- .Traveling by Aeroplane, car with combustion engine, Motorboat





»As surfers  
we immerse  
into nature«

»Its our contribution,  
to the world, to show  
others, through our  
eyes, whats going on  
within the ocean and  
to be a responsible  
and sustainable  
role model. «



SUSTAINABLE SURF

*“Avoidance of the depletion of natural resources in order to maintain an ecological balance”*





Today he  
connected  
his passion  
and his  
values.

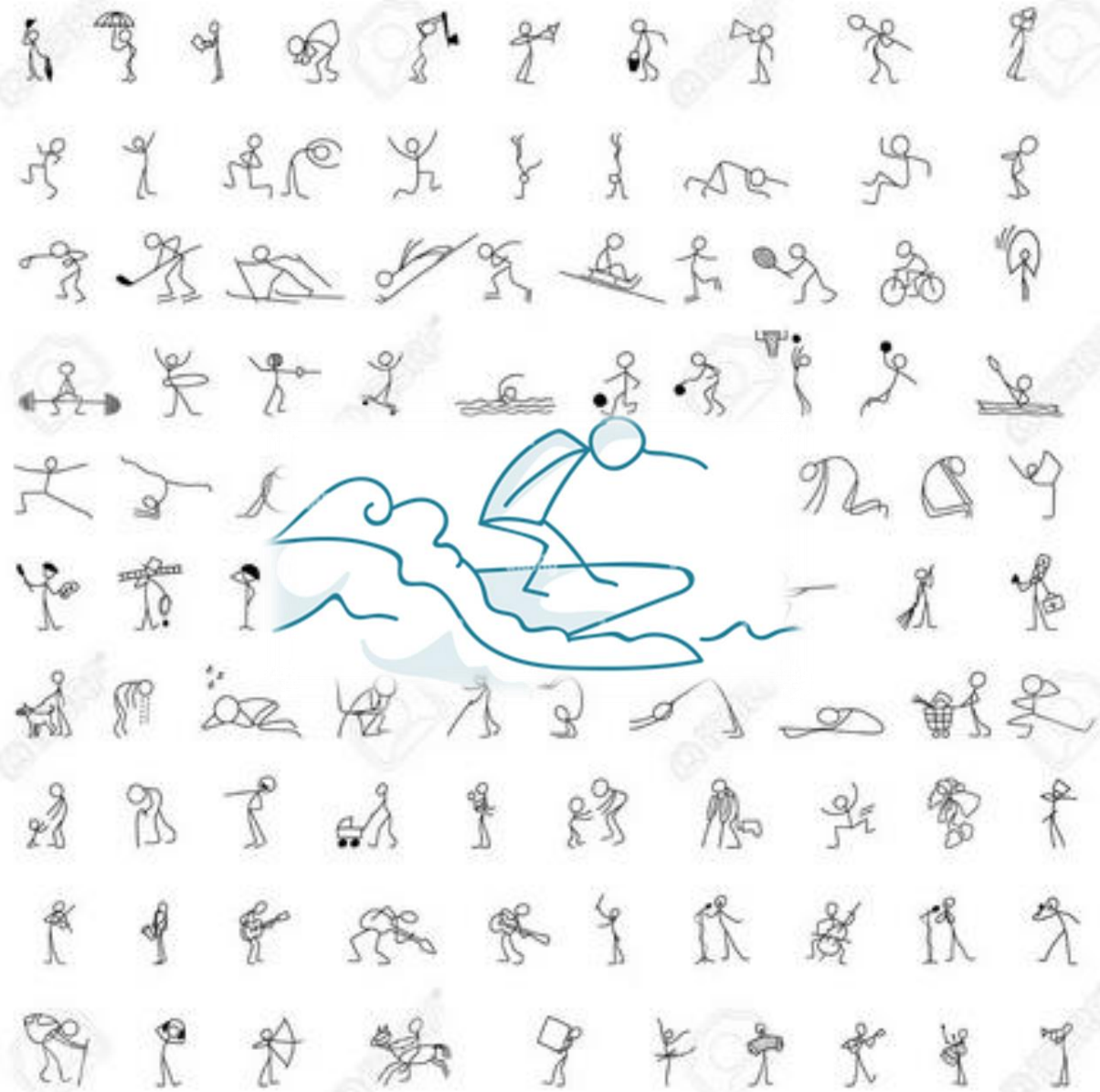
Running a  
sustainable  
Surf-Board-  
and  
Surfshop  
Business.

»Walk the talk  
...and surf walk«

Kens tigi

# 1 of a 100

Surfers are  
nearly 1%  
(50 millions)  
of the world  
population  
(8 billions)



.Repairing our gear

.Buy long lasting good quality

.Living a sustainable lifestyle

.Respecting limited resources

.Being a role model for others



.walk the talk – surf the walk

.Inspiring others

. Supporting ecological projects

.Supporting local businesses

.Compensating our flights  
e.g. [www.atmosfair.de](http://www.atmosfair.de)



Place / Lieu *Playa de SOMO*  
Date *20 de Marzo 2010* 6 Clean Km / Km propres 4 m<sup>3</sup>

# OCEAN INITIATIVES

[www.initiativesoceanes.org](http://www.initiativesoceanes.org)



[www.surfrider.eu](http://www.surfrider.eu)

Ocean Initiatives 2010



Kuntigi

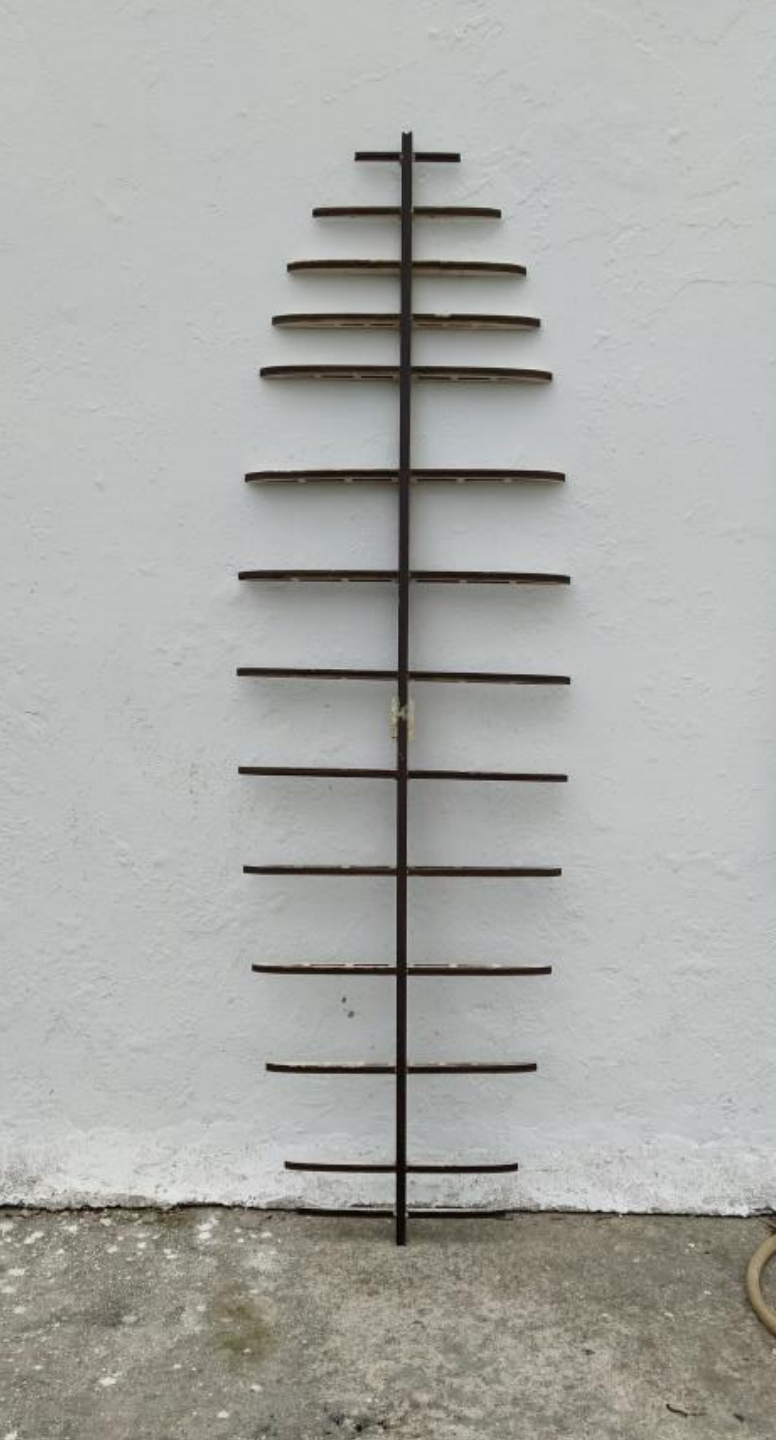


*Sun God «Kun tíqsí Viracocha»,  
known as the founder of the Inca  
civilisation in South America and  
his tribe subsequently had to leave the  
continent.*

*They fled in balsa boats to the distant  
Eastern islands, 8000 km away,  
where they were the first to colonize  
them.*







It's hollow  
inside

...just air and  
hardwood  
stingers















“Kun\_tiqi” gives every surfer the chance to make their own contribution to nature by using a product, which is produced from eco- friendly and sustainable materials.

A wooden surfboard blank is shown in a workshop setting. The board is supported by a wooden stand and has a yellow hand plane resting on its surface. The background features a blue wall and a fluorescent light fixture. The floor is covered with wood shavings.

*Kun\_tici*  
surfriders who care

# Materials

**Wood:** Paulownia (Portugal), Balsa (Equador), Sapele (Africa)

**Resin:** vegetable-oil-based

**Vanish:** waterbased

**Cork:** Cork-Oak (Portugal)

Paulownia-Tree





Cork  
Oak  
Forrest



- .The bark regenerates frequently.
- .Lifetime expectation: 180 to 250 years
- .10 to 15 times harvestable.
- .Produces a vast amount of oxygen.
- .Storages tonnes of CO<sub>2</sub>.

natural,  
biodegradable,  
elastic,  
impermeable,  
lightweight,  
recyclable







Foto Meike Reijerman











*jean.anglet.surf@free.fr*













COLLECTIVE  
SURFBOARDS



Sustainable and yet high quality

Lightweight

Adapted to modern surf

Based on classic surfboard shapes

Blank-Foam variants:

EPS (Expanded Polystyrene, recyclable)

Polyola (recycled from mattresses)

## EPS-Foam, Paulownia-Wood and Cork:

Doesn't need any fiberglass for stabilisation, as it is strong enough itself.

The result is a light, eco-friendly board well-rounded by a natural feeling.



### Paulownia wood

Salt-water-resistant, light, rigid, durable

### Cork

Light, water-proof, flexible, very ding-resistant

### Resin-Tint

It's a unique piece of art!

### Lamination

Eco-epoxy resin based on plant oil.









anti

anti

ver-green.de

eve



surfriders who care











# Professional Repairs



by Aitor





Workshop  
in  
Liberia

You have to do it because  
you can't stand not to do.

That's the best reason to  
do anything.

