



INTERNATIONAL WATER RESOURCES ASSOCIATION'S
1st ISLANDS WATER CONGRESS
FAROE ISLANDS - SEPTEMBER 4-6, 2024



*International
Water Resources
Association*



JARÐFEINGI
Faroese Geological Survey

Water and the Future of Hawai'i

Dr. Kamanamaikalani Beamer

University of Hawai'i at Mānoa

Sept. 5, 2024



UNIVERSITY
of HAWAI'I
MĀNOA



INTERNATIONAL WATER RESOURCES ASSOCIATION'S
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[@poaikealohaaina](https://www.instagram.com/poaikealohaaina)



[@kamanabeamer](https://twitter.com/kamanabeamer)

[@poaikealohaaina](https://twitter.com/poaikealohaaina)

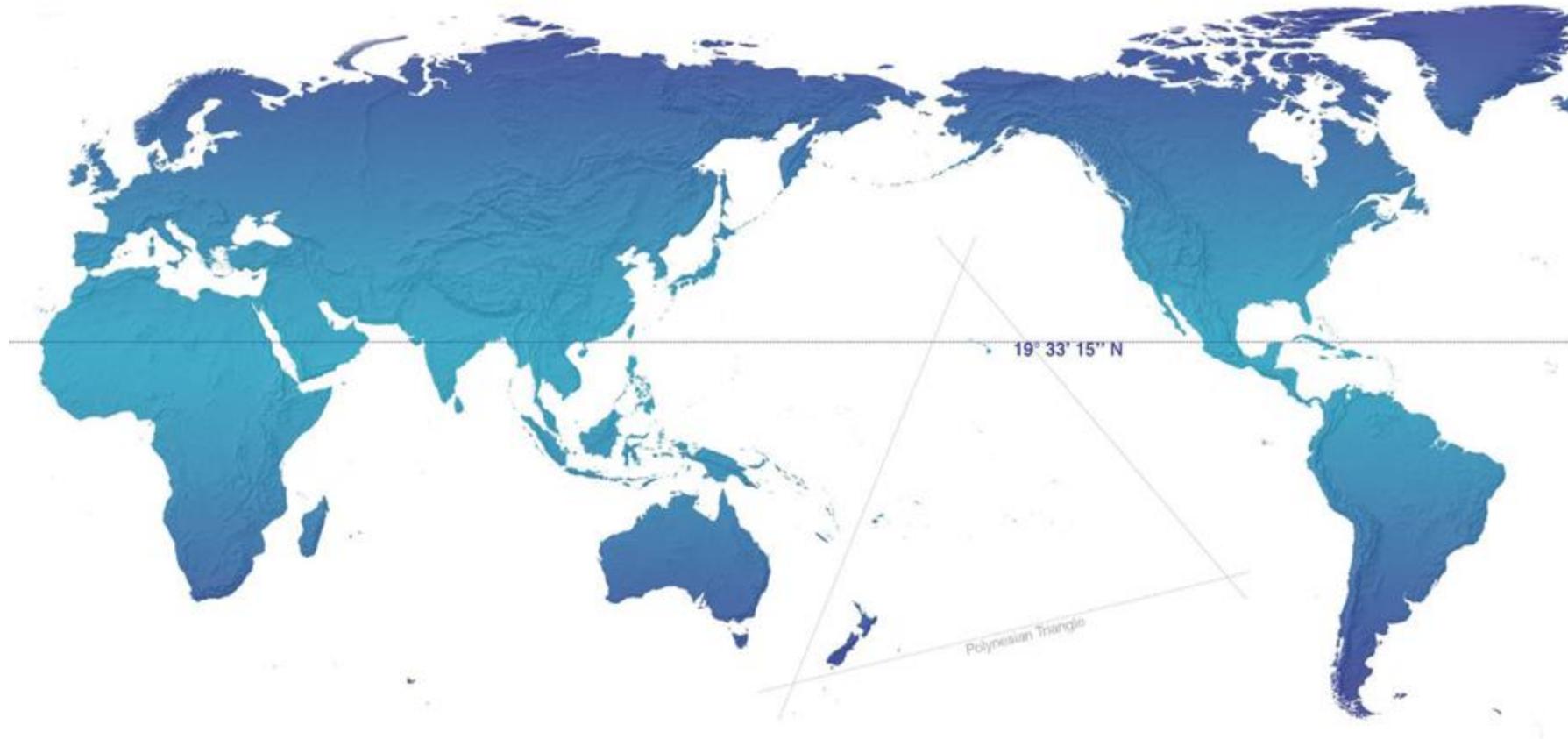


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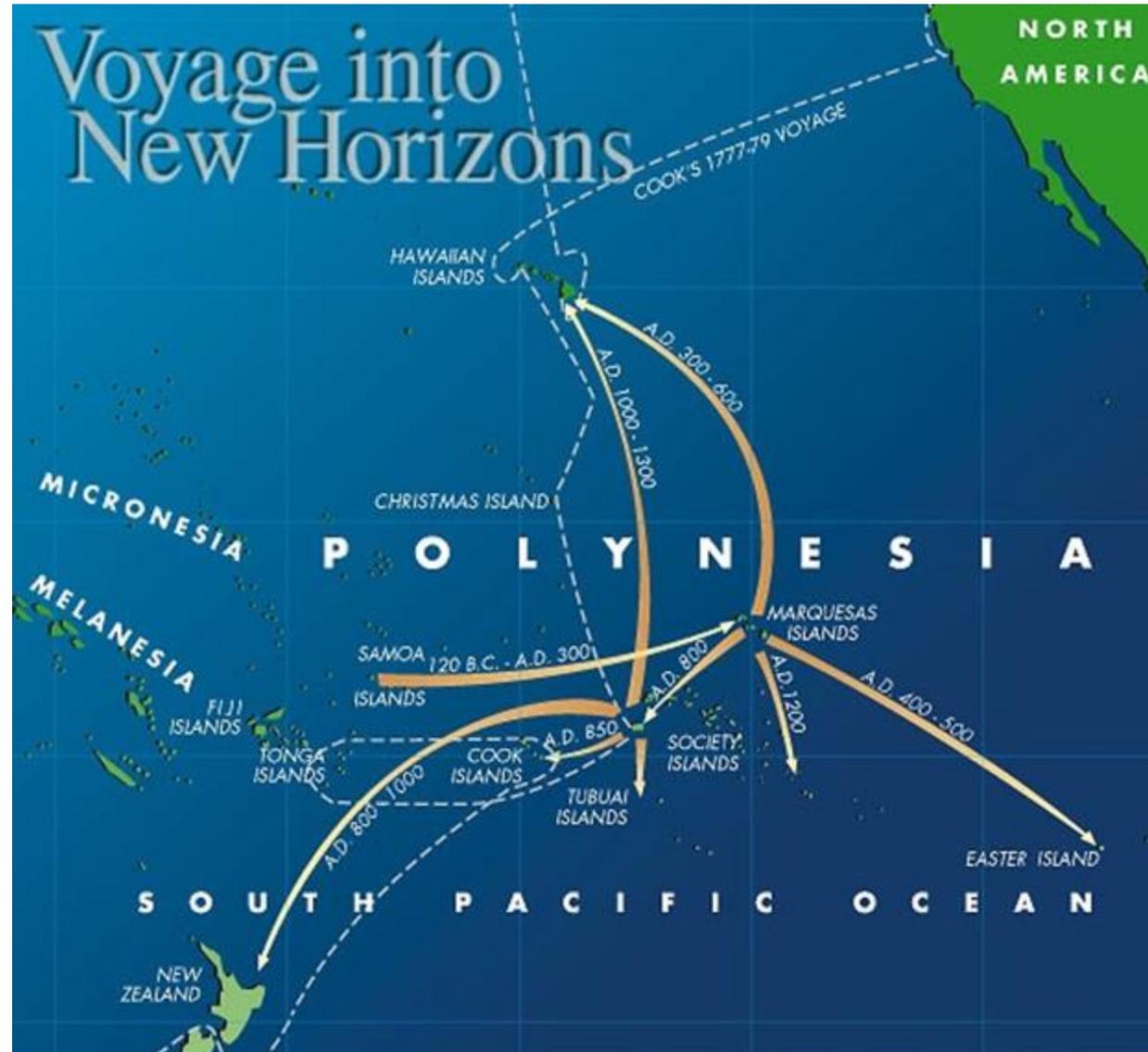
“Mālama Kō Aloha”
(to keep, cultivate your love)



“Our Sea of Islands”



Pacific Migrations





Aloha ‘Āina

“Love for that which feeds us”

Familial relationship between land,
resources, and people

Defines a responsibility; to love, serve, and
honor in a reciprocal relationship

Modern movement framing community
responses to crucial issues of justice

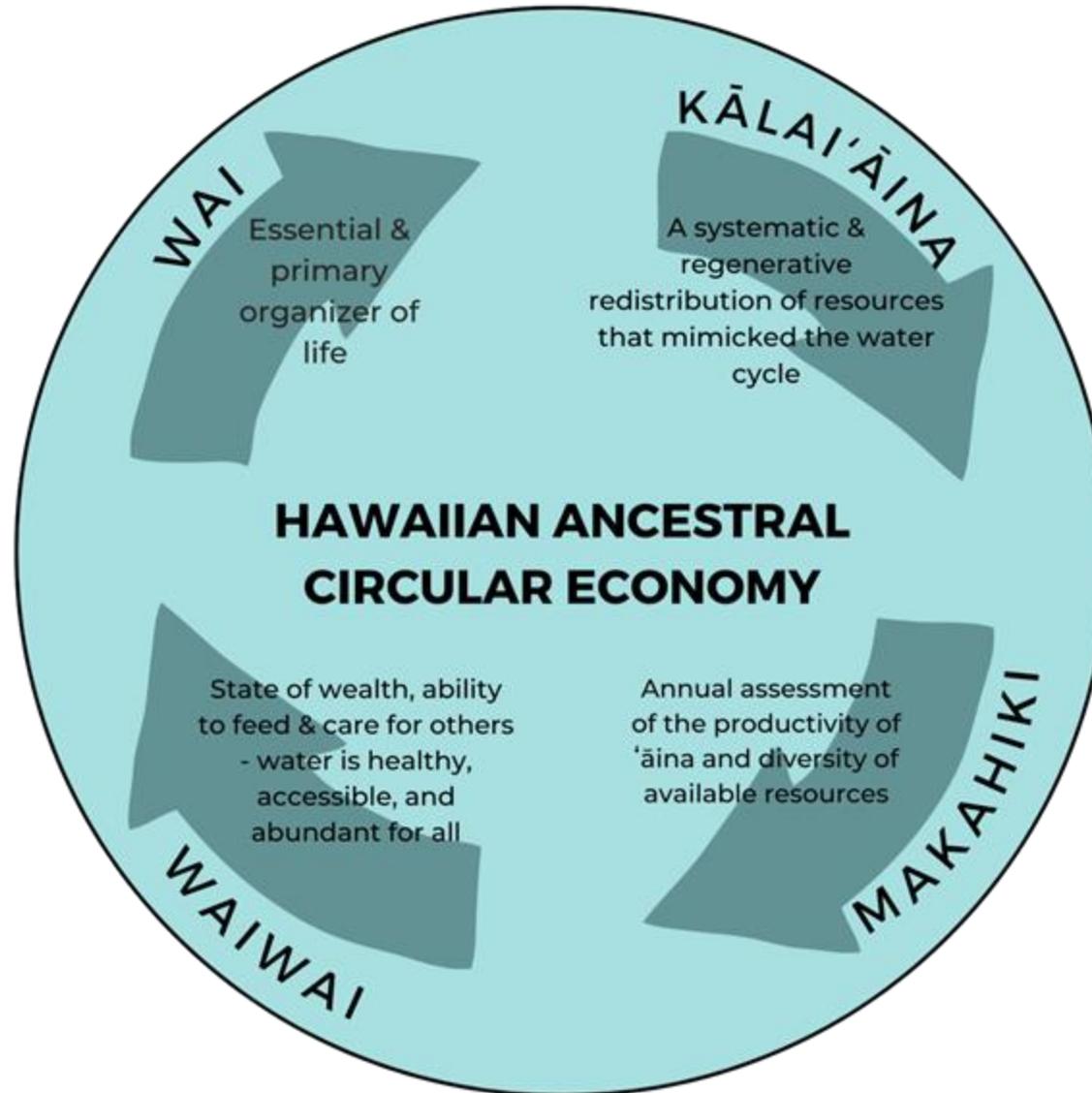






Wai = Water

Waiwai = Wealth



1. Prioritization of relationship building
2. Balanced governance structures
3. Systematic and regular redistributions of wealth & power
4. Promote regenerative social-ecological processes
5. Environmental kinship



First Constitution of the Hawaiian Kingdom (1810-1893)

Establishes Water as a public trust

4
maka, a hookolokoloia e like me ke kanawai, a ku ka hewa imua o laua, alalla hoopai.

V. Aole pono i kekahi kanaka, aole hoi i kekahi alii ke noho lunakanawai, a i juri hoi e hookolokolo i kona makamaka pono, a me ka mea i pili pono ia ia. Nolaila, ina hoahewaia kekahi kanaka, a hooponoia paha, a mahope iho, ikeia, ua hana paewaewa kekahi o ka poe hookolokolo, i mea e kokua wale i kona mea aloha, a i mea e waiwai ai paha, alaila, hookolokolo hou imua o ka poe paewaewa ole.

Ka hoakaka ana i ke Ano o ka Noho o na'lii.

Eia ke ano o ka noho ana o na'lii a me ka hooponopono ana i ka aina. O Kamehameha I., oia ke poo o keia aupuni, a nona no na aina a pau mai Hawaii a Niihau, aole nae nona pono, no na kanaka no, a me na'lii, a o Kamehameha no ko lakou poo nana e olelo i ka aina. Nolaila, aole mea pono mamua, aole hoi mea pono i keia manawa ke hoolilo aku i kekahi lihi iki o keia mau aina me ka ae ole o ka mea ia ia ka olelo o ke aupuni.

Eia ka poe nana ka olelo mai ia manawa mai, O Kamehameha II., o Kaahumanu I., a i keia wa hoi, o Kamehameha III. Na keia poe wale ho e olelo o ke aupuni, a hiki i keia wa, a o na palapala a pau a lakou i kakau ai, oia wale no na palapala o ke aupuni.

E mau loa aku hoi ke aupuni ia Kamehameha

1840 Kumukānāwai

The origin of the present government, and system of polity, is as follows:

Kamehameha I, was the founder of the kingdom, and to him belonged all the land from one end of the Islands to the other.

Though
it was not his own private property.
It belonged to the chiefs and people in common,

of whom Kamehameha I was the head, and had the management of the landed property.

1843 Recognition of Hawaiian Independence

Declaration

Her Majesty The Queen of the United Kingdom of Great Britain and Ireland, and His Majesty The King of the French, taking into consideration the existence in the Sandwich Islands of a Government capable of providing for the regularity of its relations with foreign nations, have thought it right to engage reciprocally to consider the Sandwich Islands as an independent State, and never to take possession, either directly, or under the title of Protectorate, or under any other form, of any part of the territory of which they are composed.

The Undersigned, Her Britannick Majesty's Principal Secretary

Déclaration

La Majesté La Reine du Royaume Uni de la Grande Bretagne et d'Irlande, et Sa Majesté Le Roi des Français, prenant en considération l'existence dans les Îles Sandwich d'un Gouvernement capable de pourvoir à la régularité



Kamehameha III 1825-1854

Secretary of State for Foreign Affairs, and the Ambassador Extraordinary of His Majesty The King of the French at the Court of London, being furnished with the necessary powers, hereby declare, in consequence of their said Majesties take reciprocally that engagement.

In witness whereof The Undersigned have signed the present Declaration, and have affixed thereto the Seal of their Arms.

Done in duplicate at London, the Twenty eighth day of November in the Year of Our Lord One Thousand Eight Hundred and Forty Three.

Aboulean



Stangiers de Sa Majesté Britannique et Ambassadeur Extraordinaire de Sa Majesté Le Roi des Français près la Cour de Londres, munis des pouvoirs nécessaires, déclarent en conséquence, par les présentes que Leurs dites Majestés prennent réciproquement cet engagement.

En Foi de quoi les Dits Signés ont signé la présente Déclaration, et y ont fait apposer le Sceau de leur Armes.

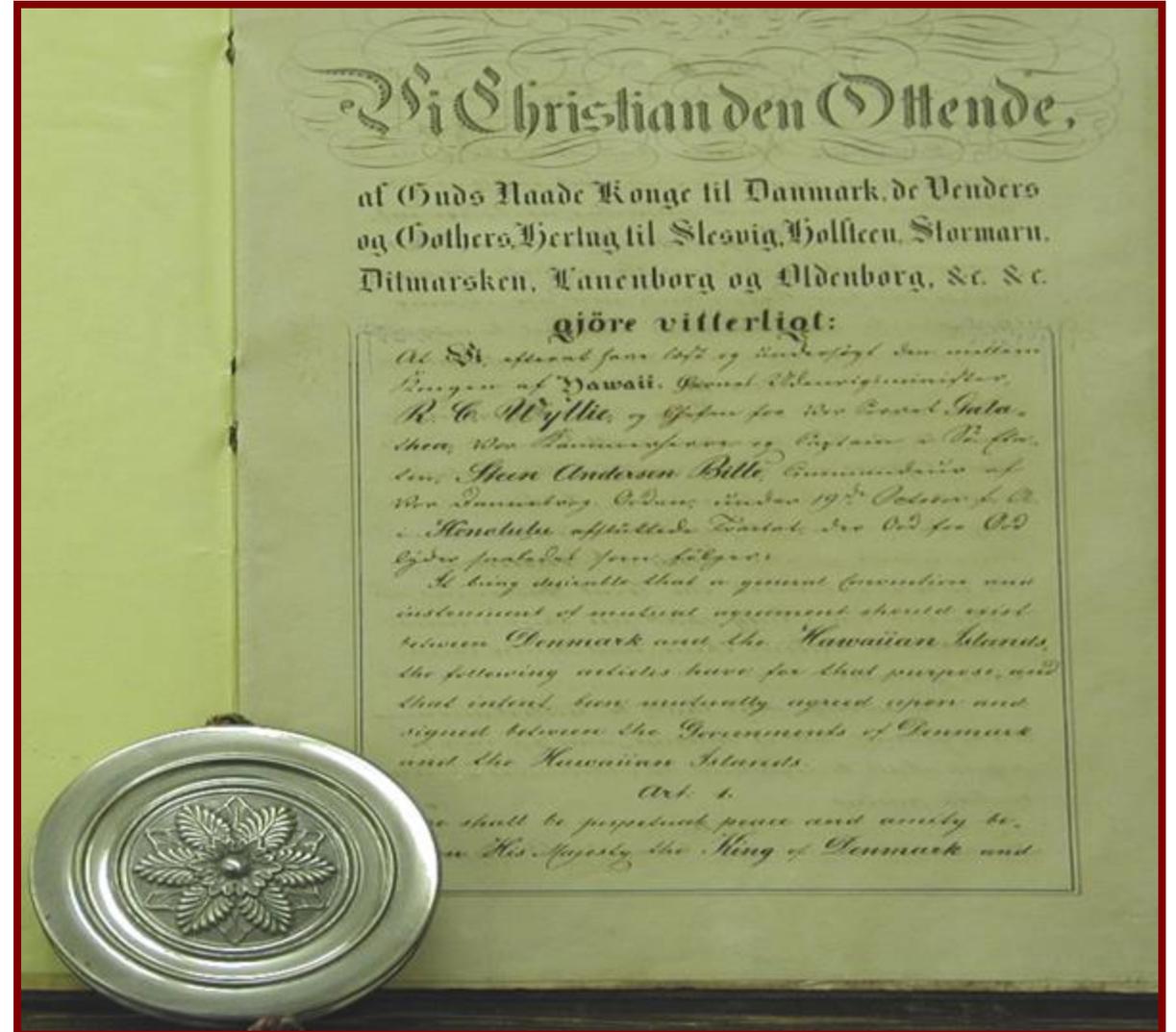
Fait double à Londres, le Vingt-huit Novembre, l'An de Grâce mil huit cent quarante trois.

P. Bouchard



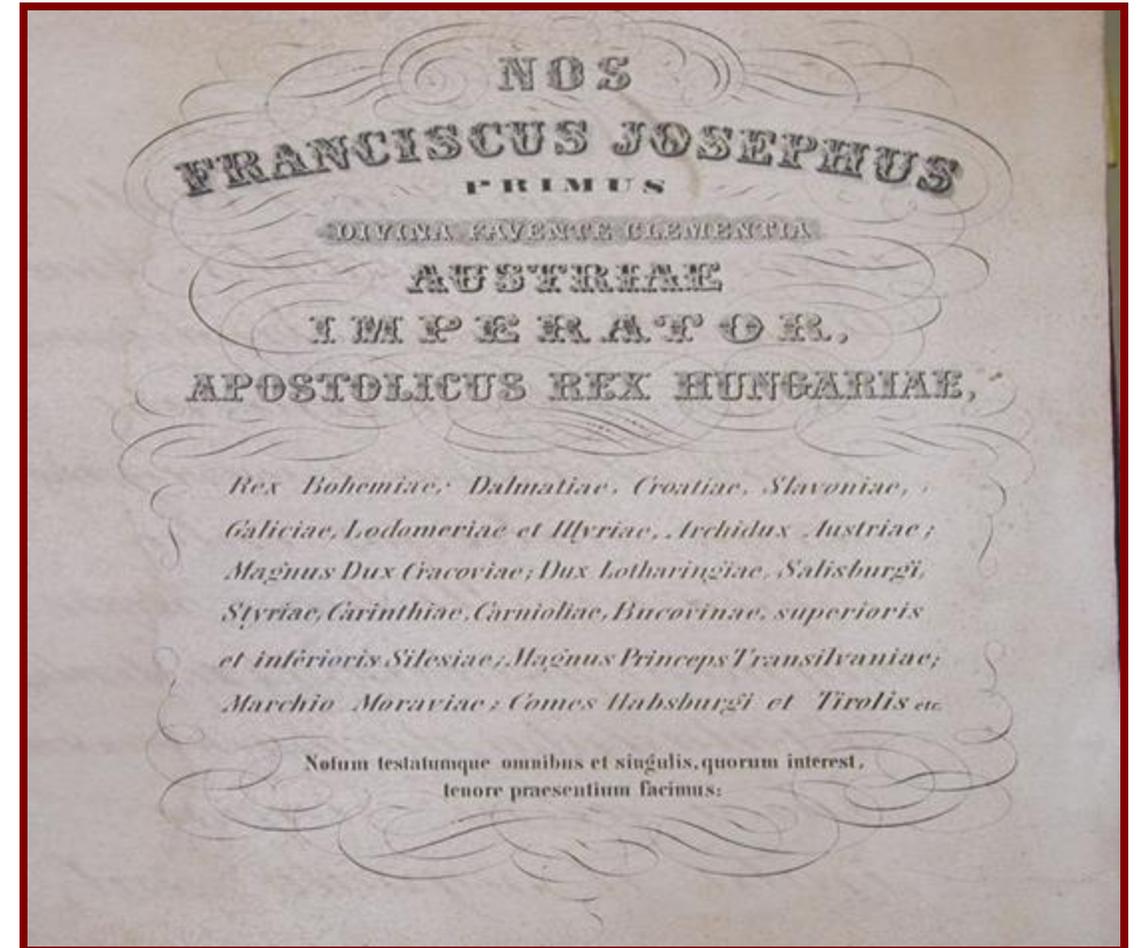
Danish Treaty

**October 19, 1846, a
Treaty was
signed in
Honolulu**



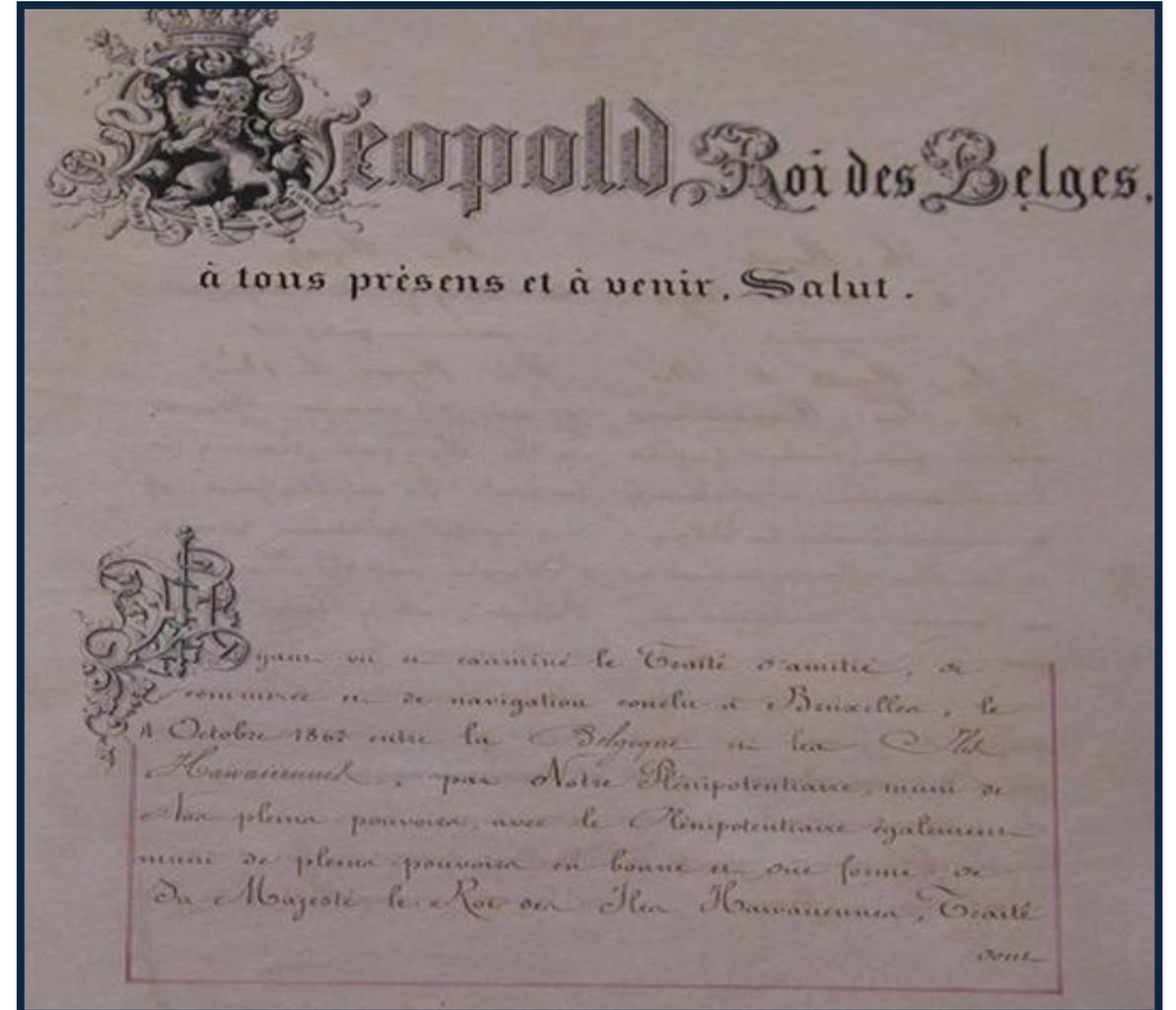
Austro-Hungarian Treaty

**June 18, 1875, a Treaty
was signed in
London**



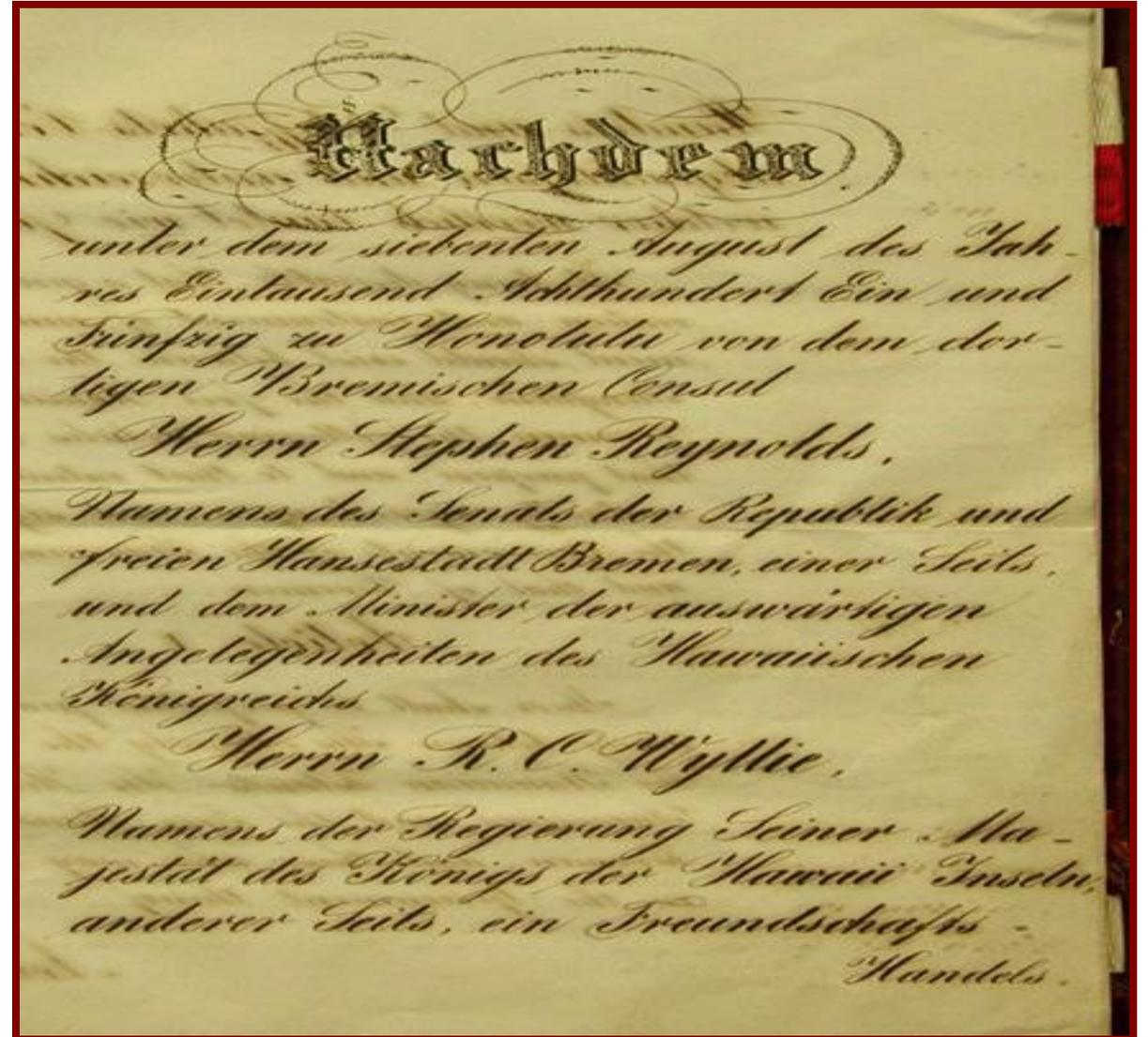
Belgian Treaty

**October 4, 1862, a
Treaty was signed
in Brussels**



Bremen Treaty

**August 7, 1851, a
Treaty was signed
in Honolulu**



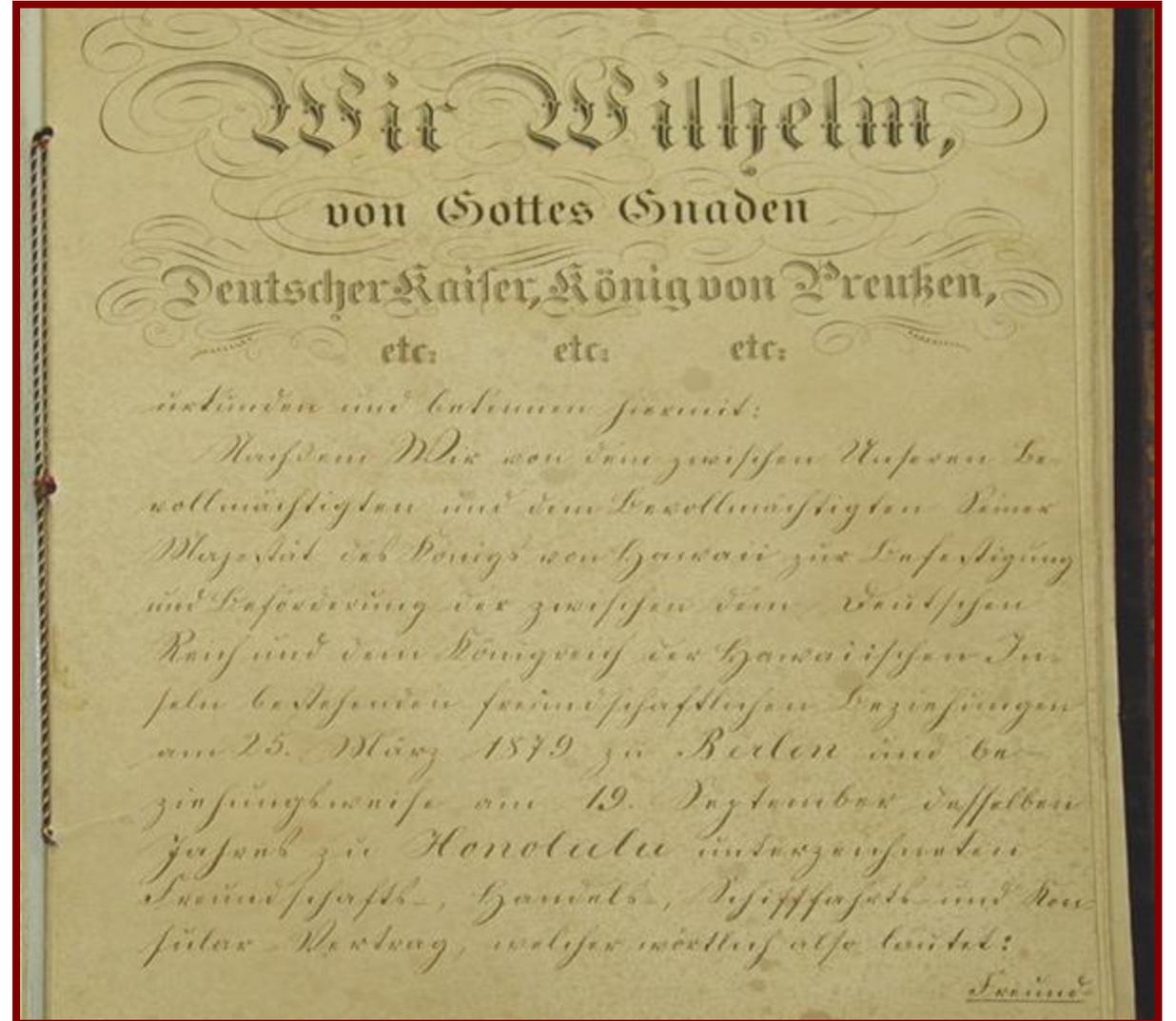
French Treaty

**October 29, 1857,
a third Treaty
was signed in
Honolulu**



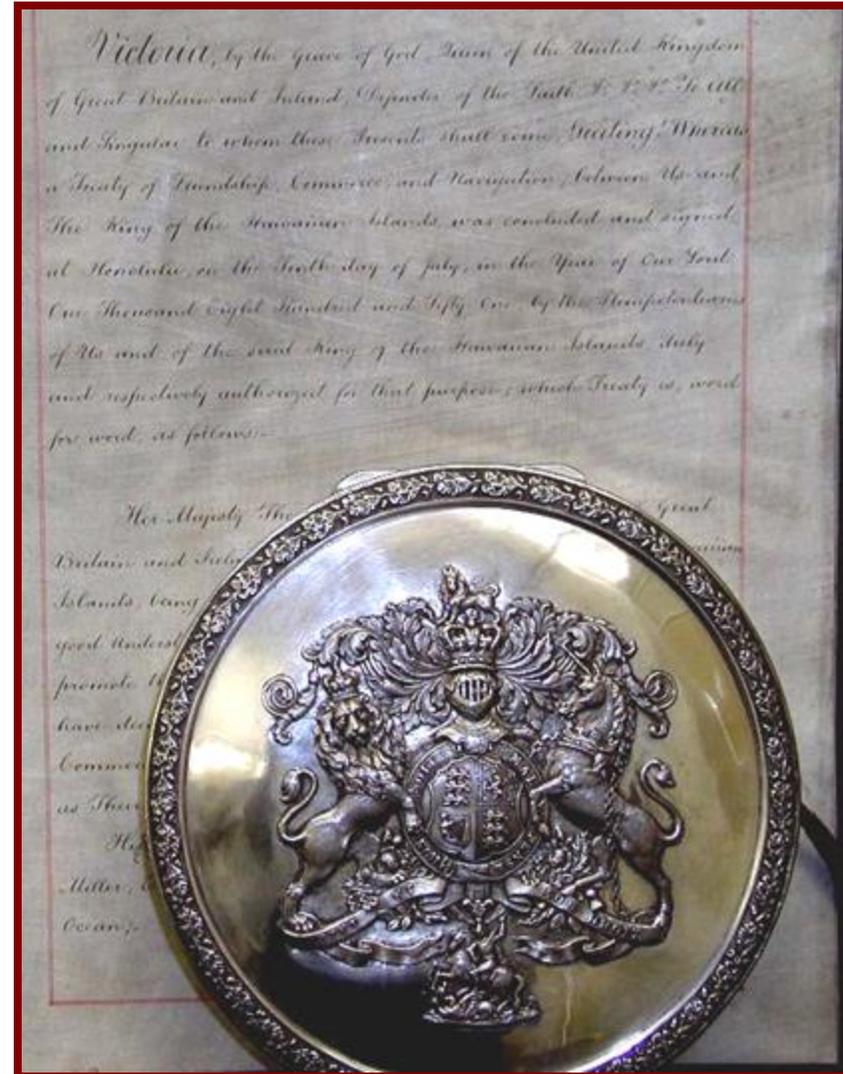
German Treaty

**March 25, 1879, a
Treaty was
signed in Berlin**



British Treaty

**July 10, 1851, a
fourth Treaty
was signed in
Honolulu**



Hamburg Treaty

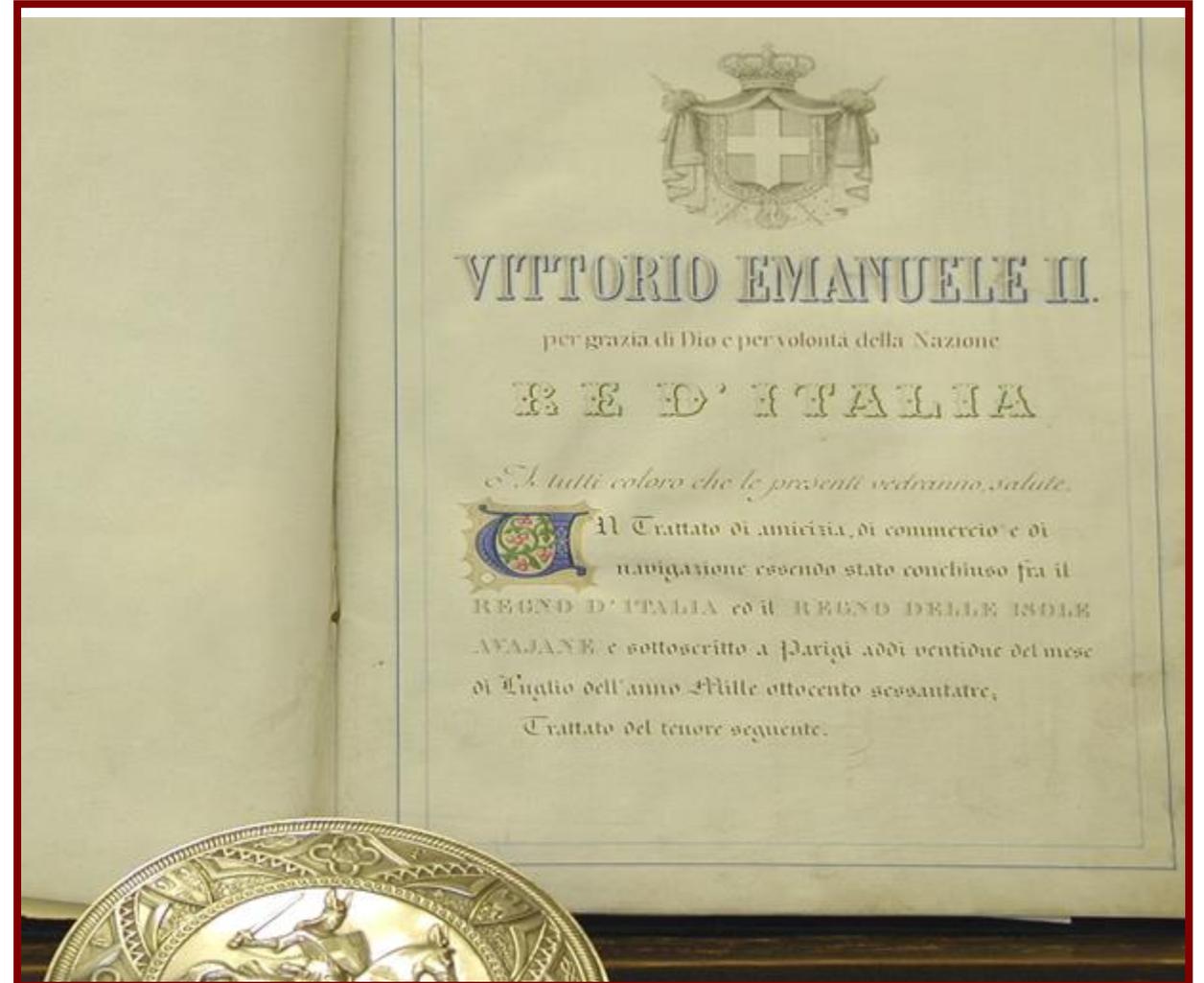
**January 8, 1848,
a Treaty was
signed in
Honolulu**

Nous,
le Sénat de la ville libre et
anseatique de
Hambourg,

savoir faisons à tous ceux qui ve-
ront les présentes qu'une Conventi-
on réglant les droits des citoyens re-
spectifs des deux pays à l'égard
de leurs personnes et leurs biens,
ayant été conclue entre Sa Ma-
jesté le Roi des Isles d'Hawa-
ii d'une part, et Nous d'autre
part, signée à Honolulu le huit
Janvier en mil huit cent quarante
huit par le Plénipotentiaire de
Sa dite Majesté et par le Notre, auto-
risés à cet effet en due forme, laquel-
le Convention insérée ici mot à mot,
est de la teneur suivante:

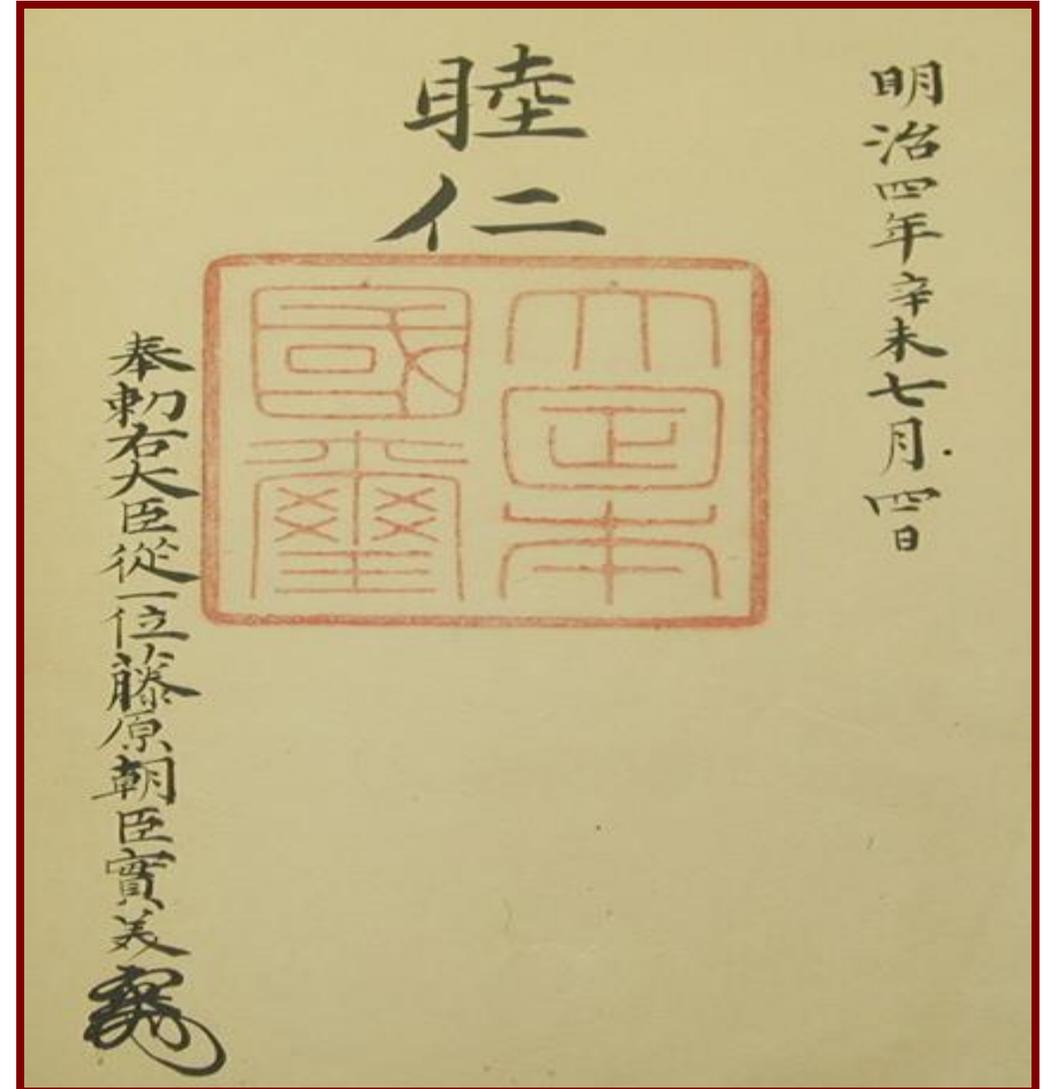
Italian Treaty

**July 22, 1863, a
Treaty was
signed in Paris**



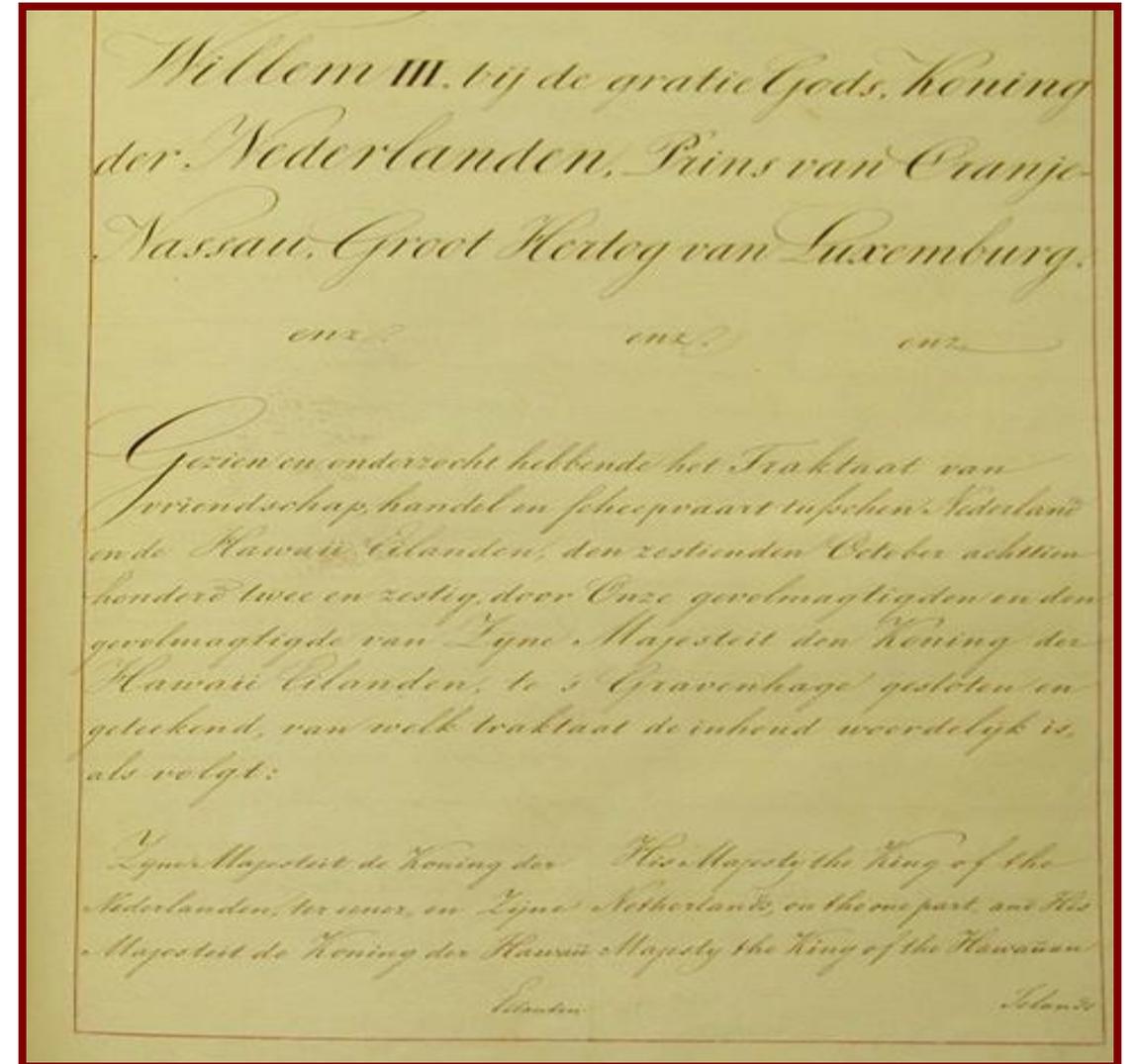
Japanese Treaty

**August 19, 1871, a
Treaty was
signed in Yedo**



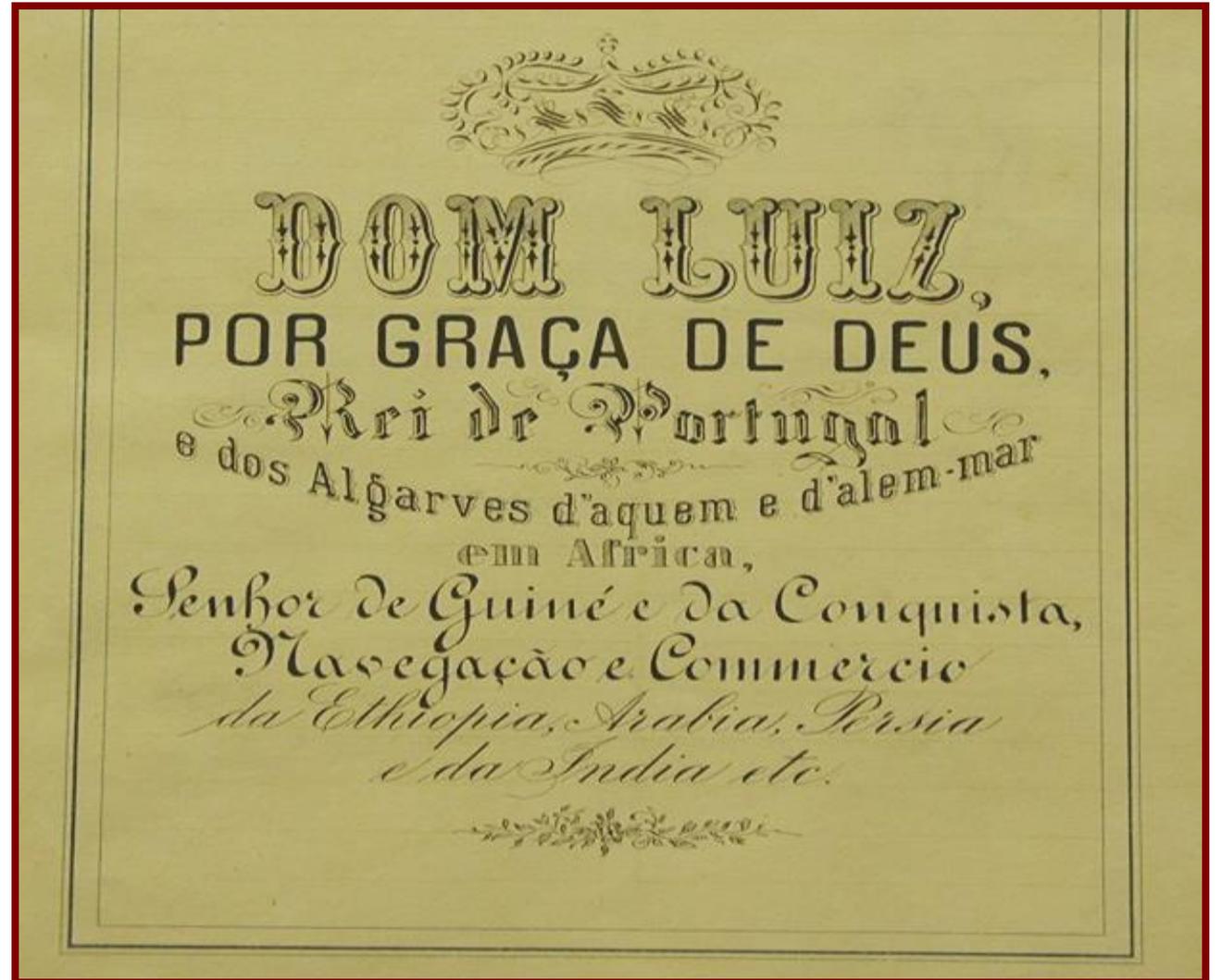
Dutch Treaty

**October 16, 1862,
a Treaty was
signed in The
Hague**



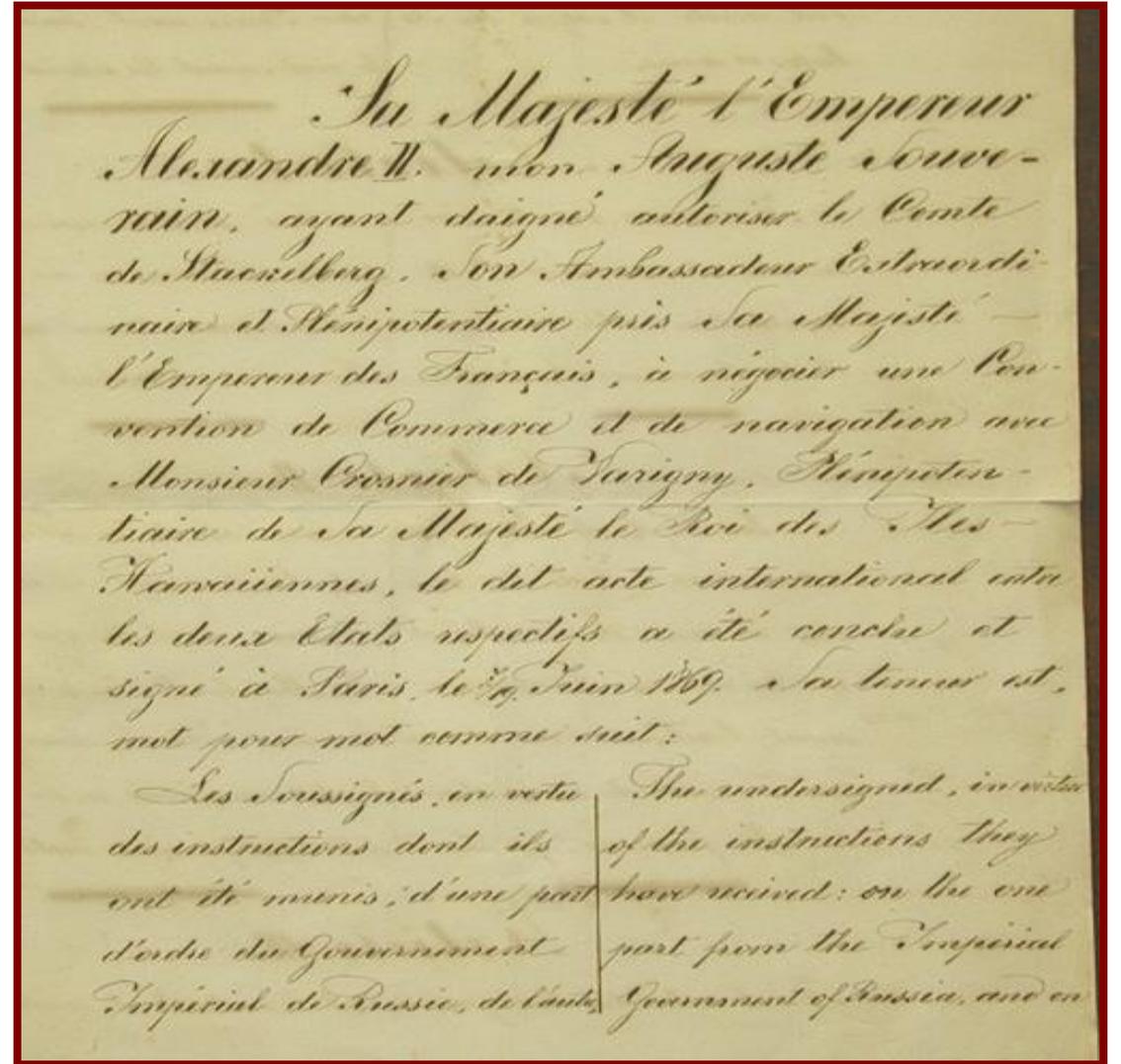
Portuguese Treaty

**May 5, 1882, a
Treaty was
signed in Lisbon**



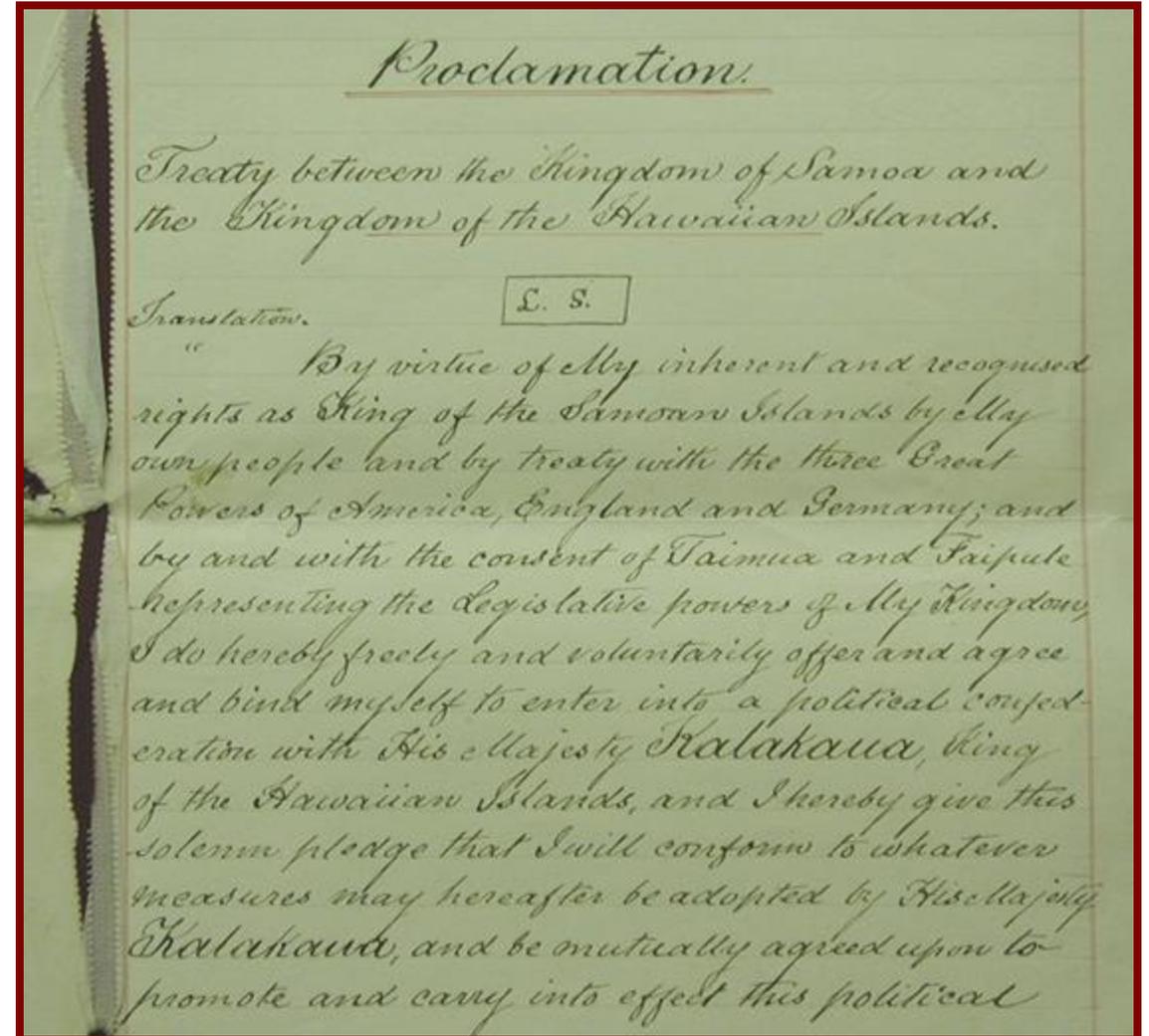
Russian Treaty

**June 19, 1869, a
Treaty was
signed in Paris**



Samoaan Treaty

**March 20, 1887, a
Treaty of
Political
Confederation
was signed in
Honolulu**



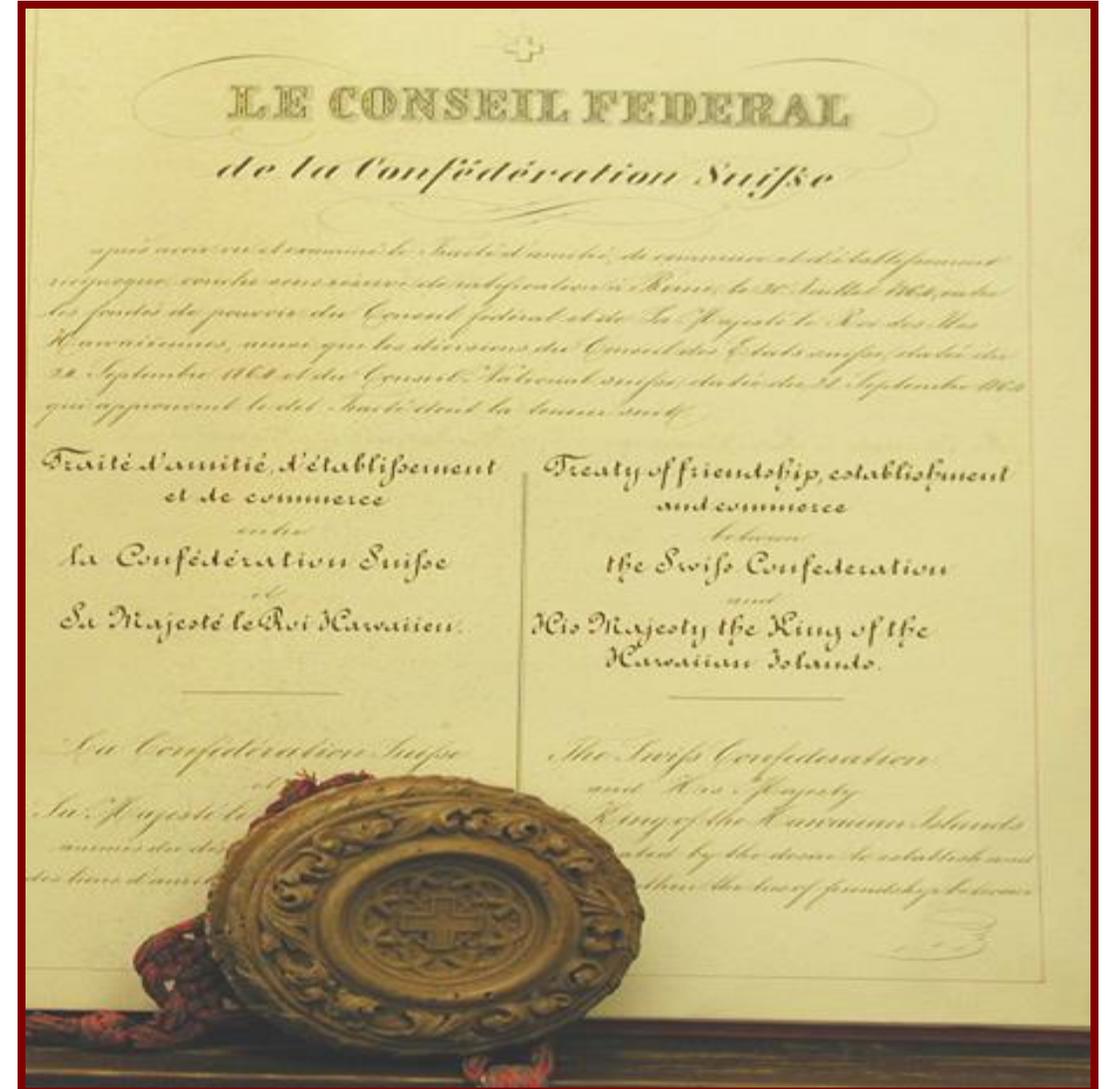
Spanish Treaty

**October 29, 1863,
a Treaty was
signed in
London**



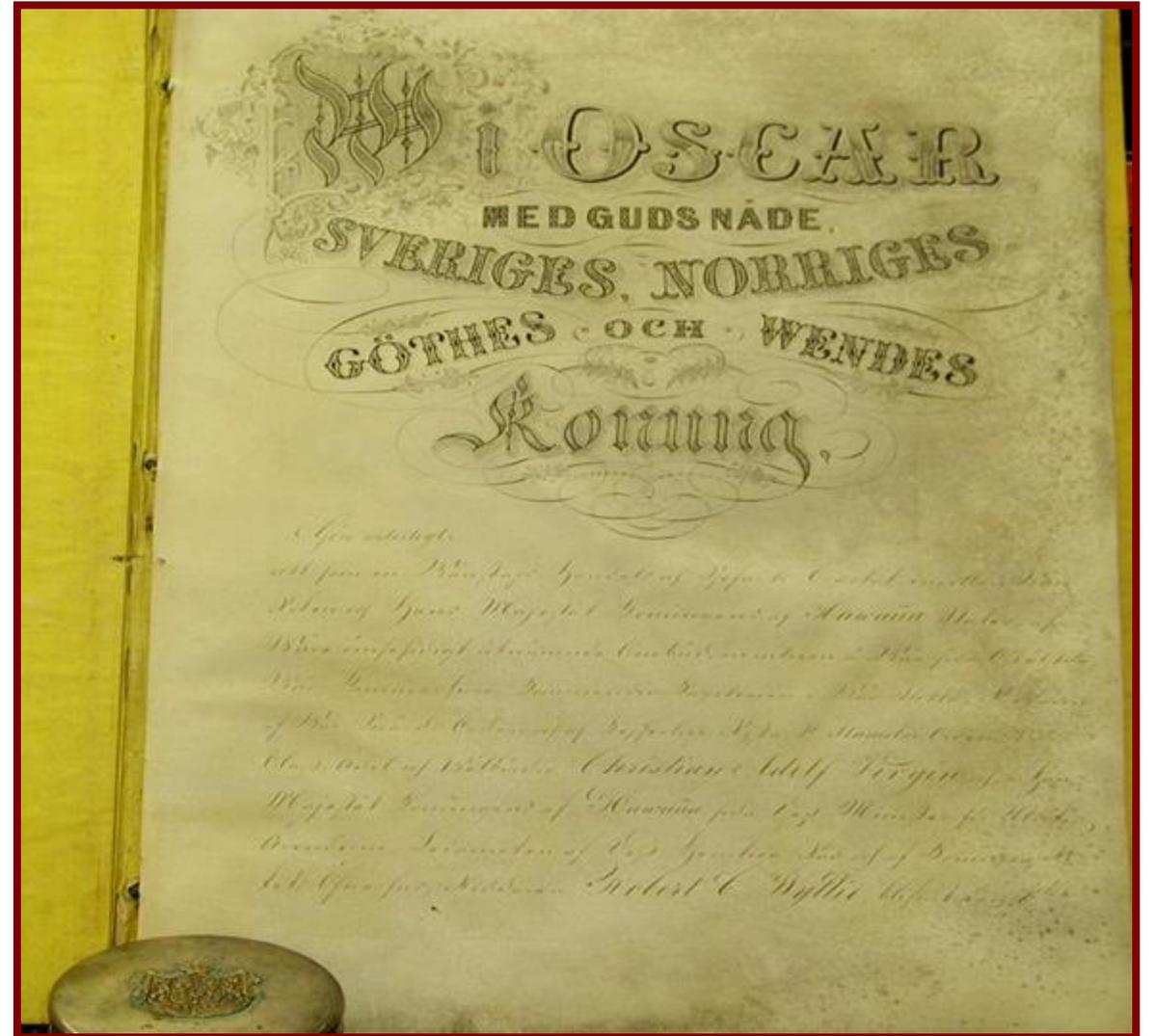
Swiss Treaty

**July 20, 1864, a
Treaty was
signed in Berne**



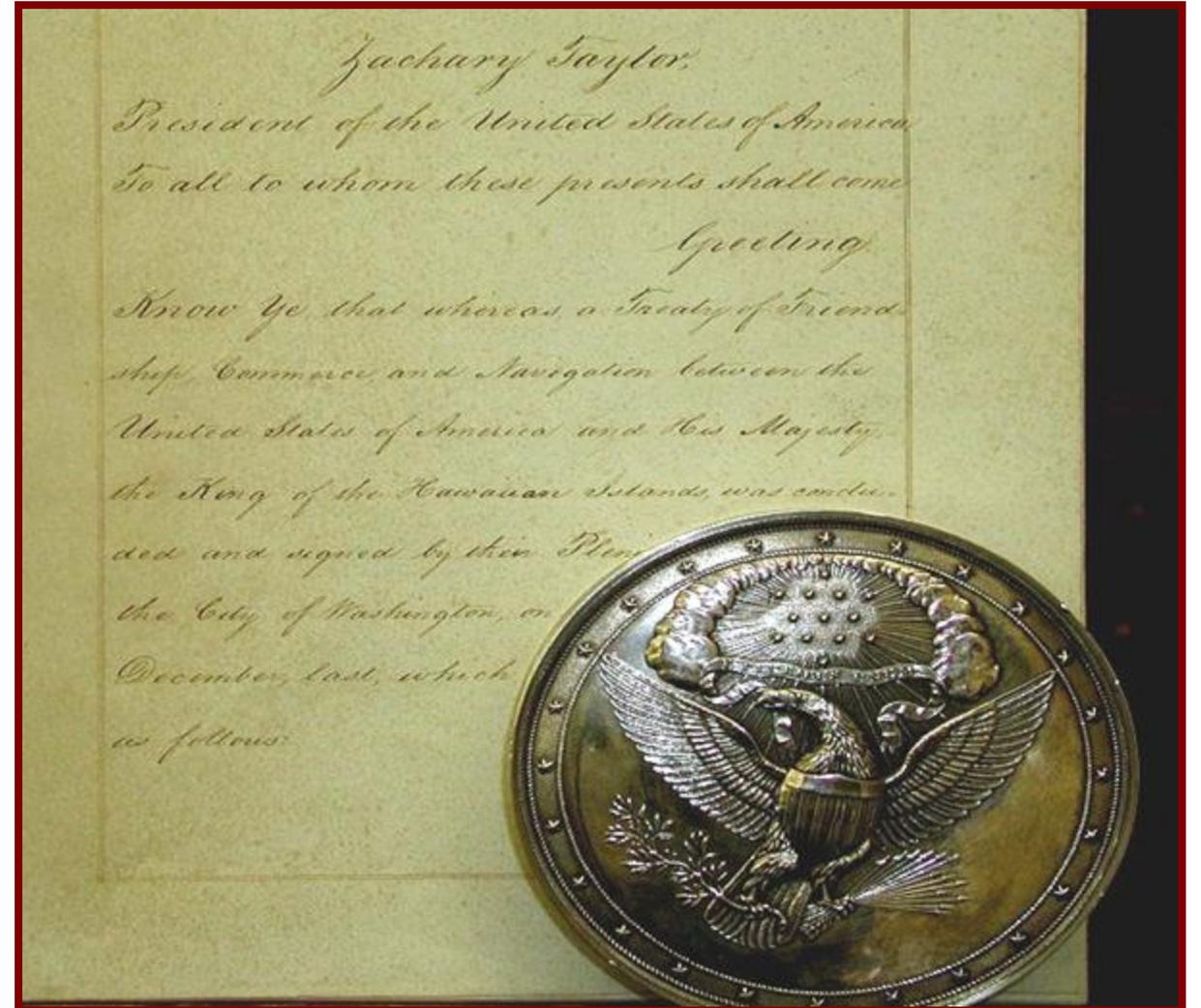
Swedish-Norwegian Treaty

**July 1, 1852, a
Treaty was
signed in
Honolulu**

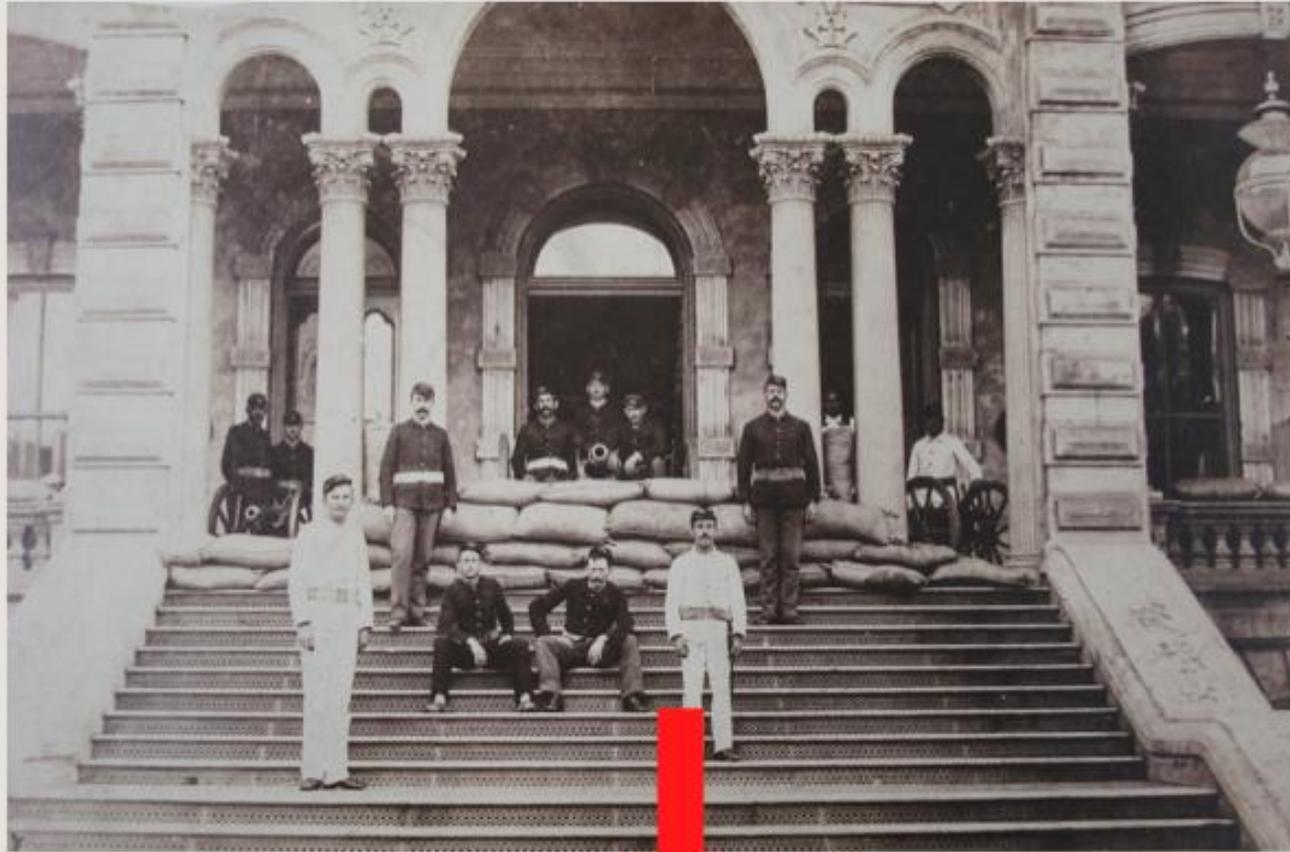


American Treaty

**December 20,
1849, a Treaty
was in
Washington,
D.C.**



Overthrow and American Occupation of Hawai'i



Dr. Kamaramaikalani Beamer

ECONOMIC SHIFTS AND RESOURCE DEPLETION IN HAWAII

SANDALWOOD TRADE (1810-1830S)

Estimated 90% decline of Hawaiian Sandalwood

Drastic decline of whale population, disruption of marine ecosystems & biodiversity, deforestation for shipbuilding & fuel

WHALING INDUSTRY (1820S-1860S)

250,000+ acres taken for sugar production, at peak approx. 800 mgd of freshwater diverted away from community needs to meet sugar demands, increase loss of native biodiversity & water pollution

SUGAR INDUSTRY (1830S-1970S)

Estimated 250,000 acres of lowland natural habitats destroyed, rise in commercial water consumption, soil erosion & pollution from pesticide & fertilizer runoff

PINEAPPLE INDUSTRY (1890S-1990S)

Takes up 44.7% of Hawai'i's total water consumption, contributes largely to the decline of healthy coral reef ecosystems & marine life, produces mass amounts of waste & ecosystem overuse

TOURISM INDUSTRY (1900S-PRESENT)

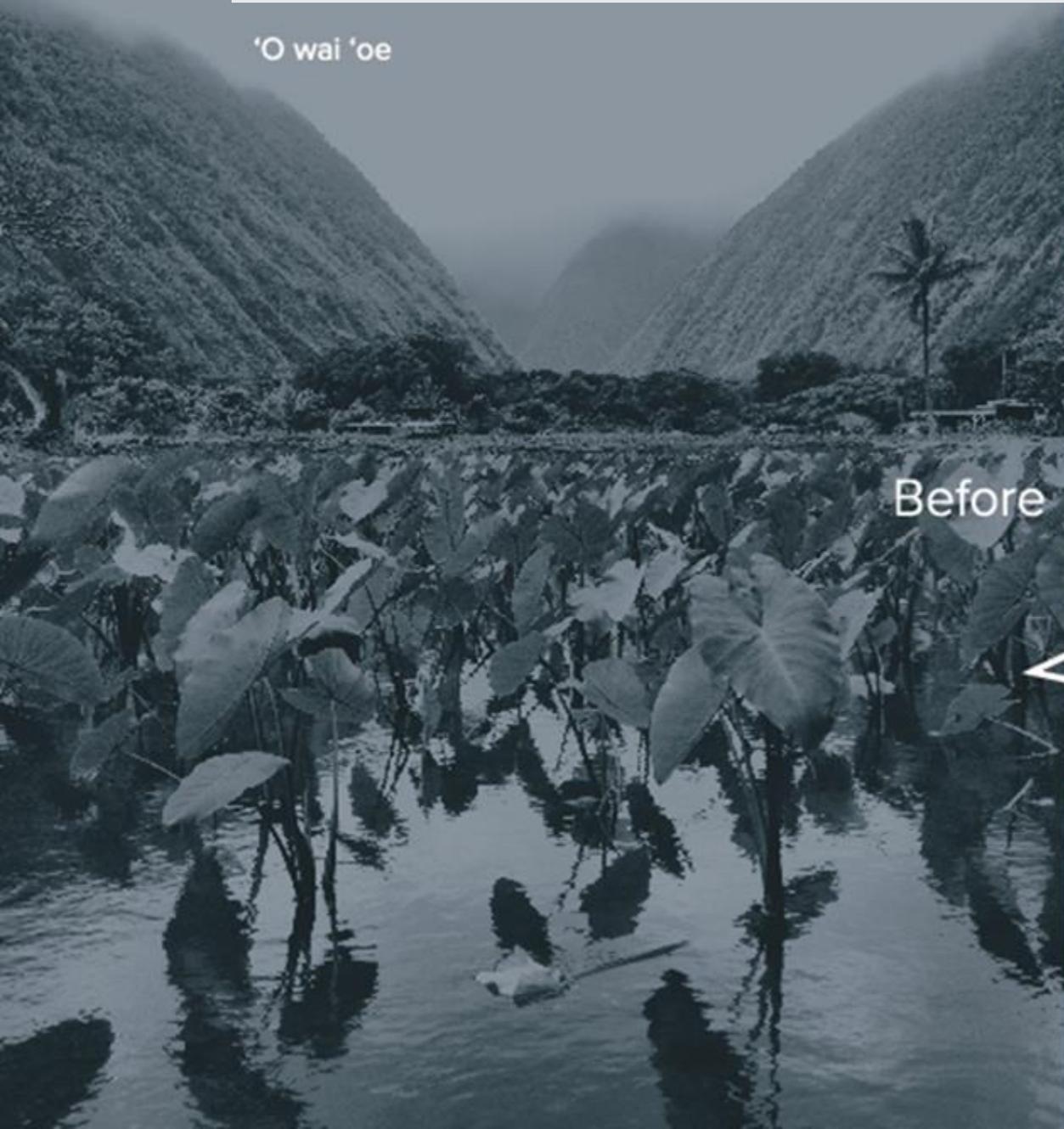
Largest land & water polluter in Hawai'i, inputs 500,000+ pounds of toxins & chemicals into oceans and soil per year, overall climate change driver

MILITARISM (1890S-PRESENT)



OUR LEADERSHIP IS DEMONSTRATED IN THE HEALTH OF OUR 'ĀINA

'O wai 'oe

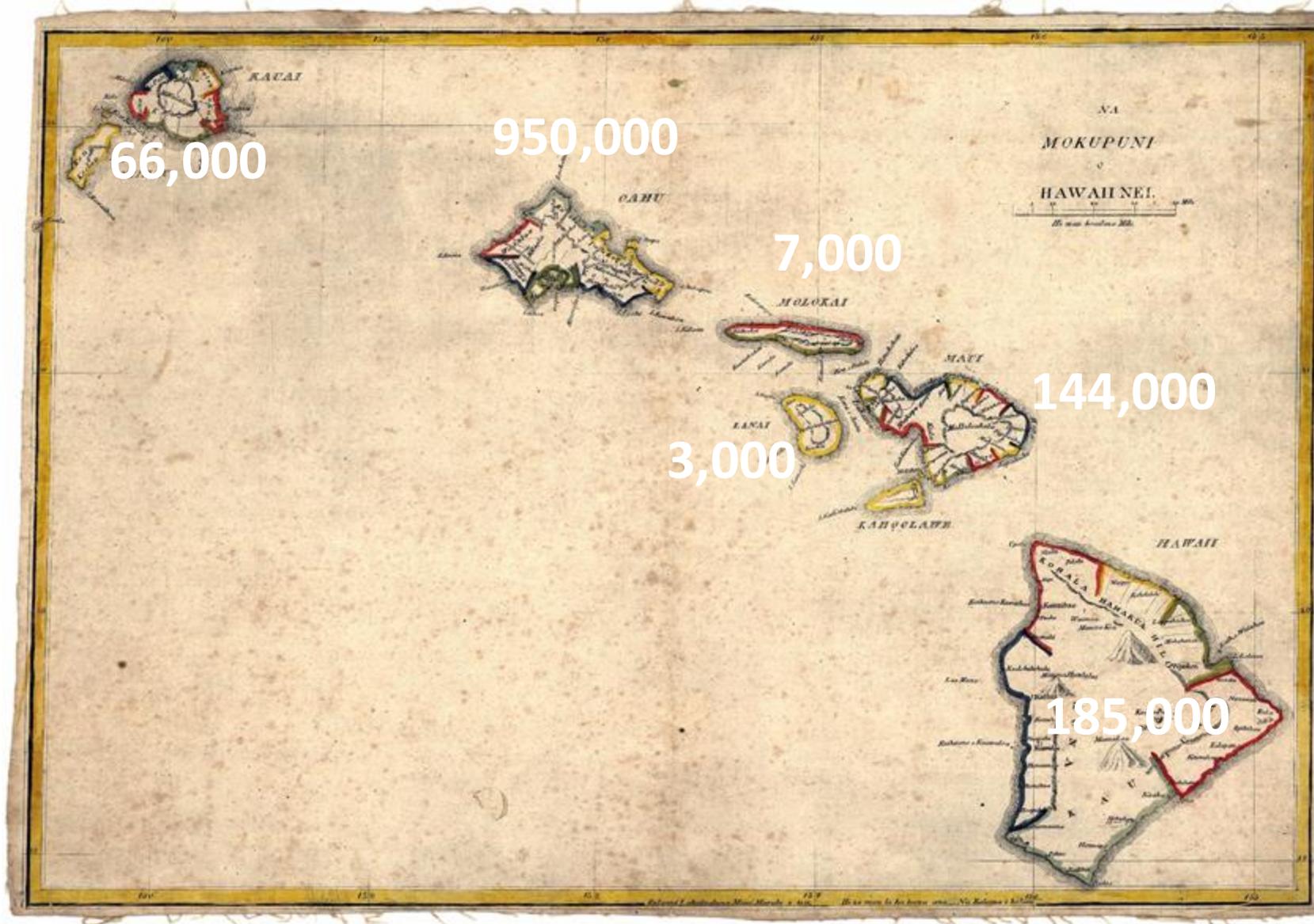


After Overthrow,
Water became an
Imperial Commodity





Total Population Today 1.4 Million

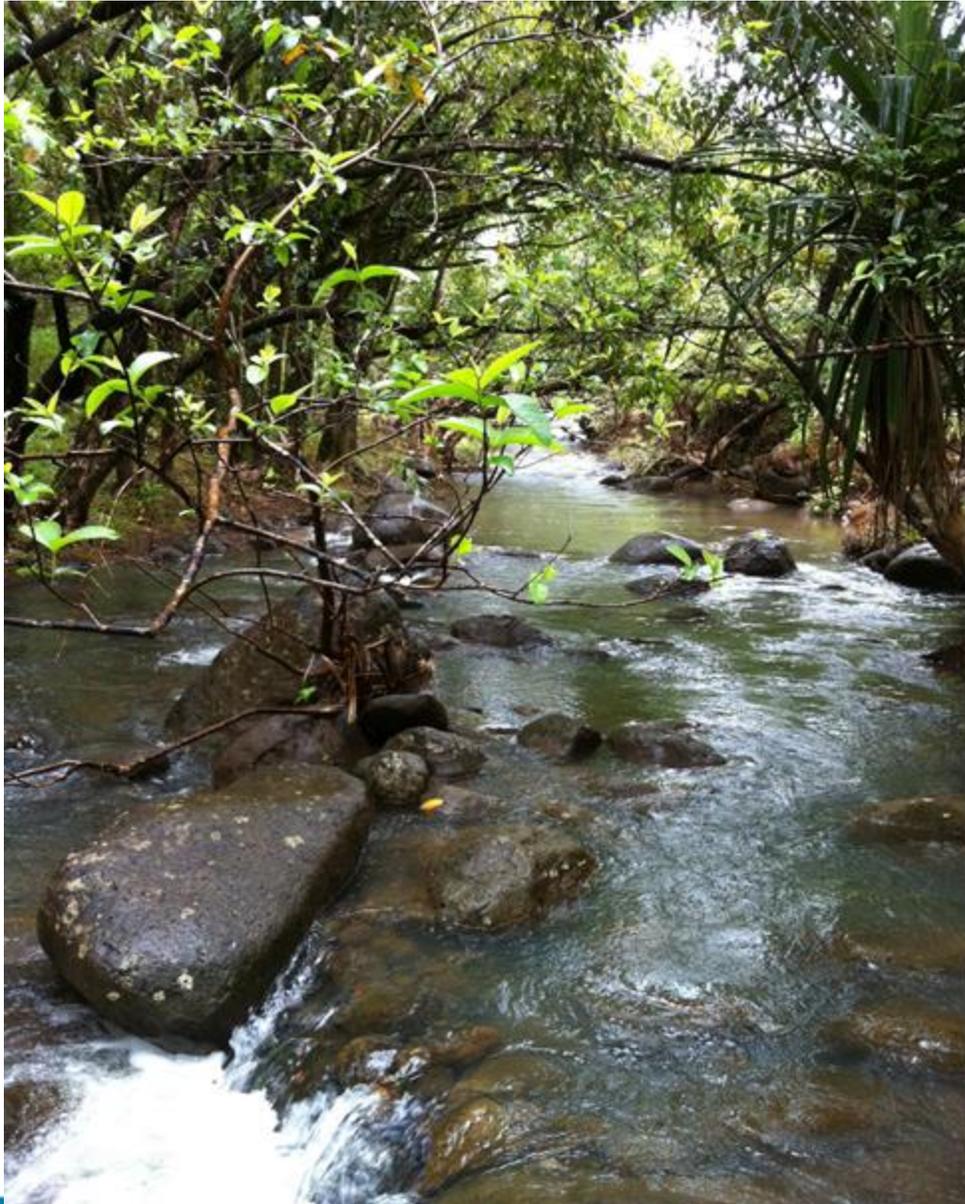


9.6 Million Tourists in 2023









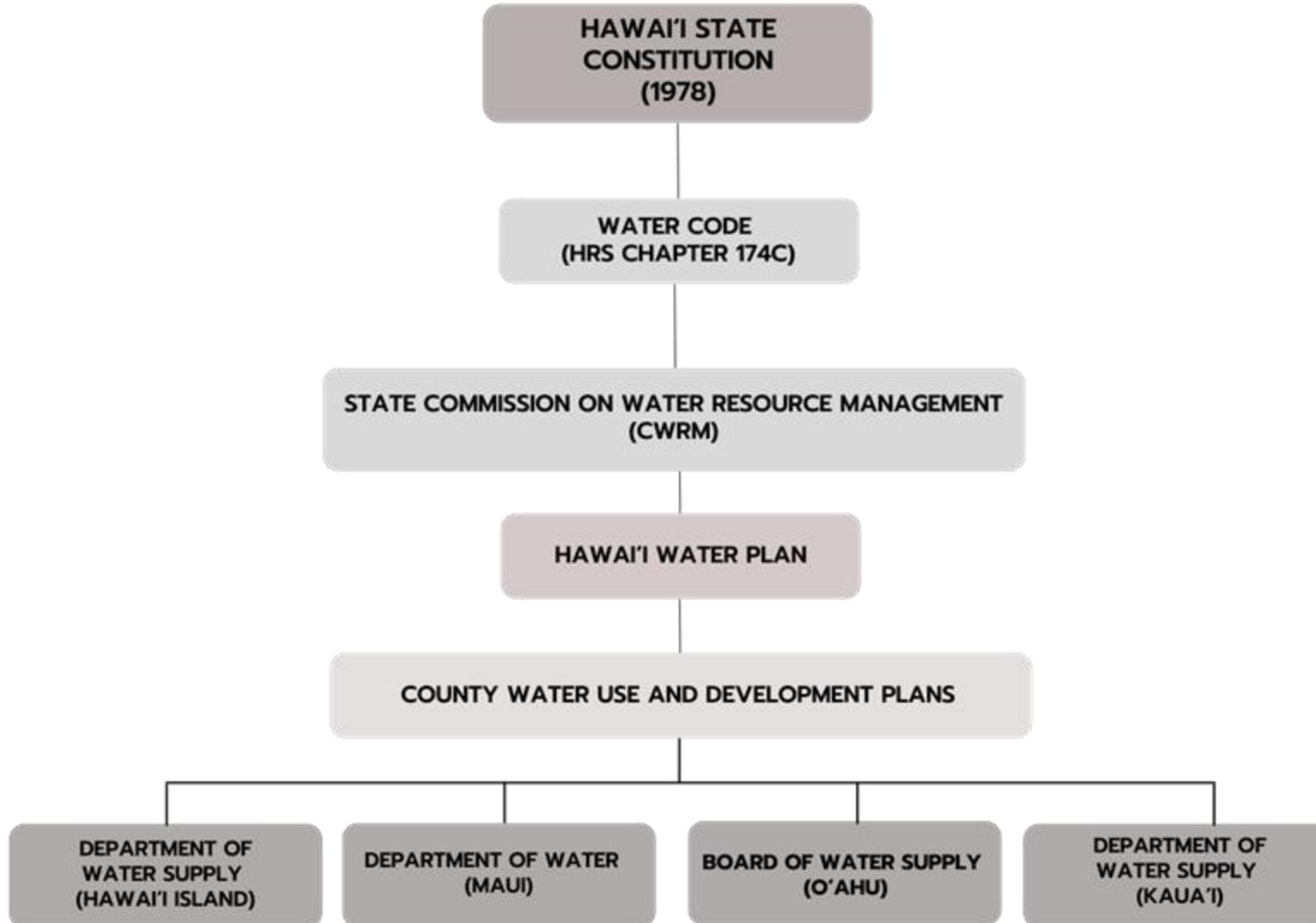
The Public Trust Doctrine holds that certain natural resources are preserved in perpetuity for public use and enjoyment.

• Article XI, § 1 of Hawai'i's Constitution provides that "all public natural resources are held in trust by the State for the benefit of the people."

• Article XI, § 7 of Hawai'i's Constitution makes specific reference to water, including the directive "to protect, control, and regulate the use of Hawai'i's water resources for the benefit of its people."

• Article XI, section 1 and article XI, section 7 adopt the "public trust doctrine as a fundamental principle of constitutional law in Hawai'i."

HEIRARCHY OF WATER MANAGEMENT IN HAWAI'I





8 years 2013-2021

**COMMISSIONER ON
HAWAII STATE WATER
RESOURCE
MANAGEMENT**

**Restored Water to 45
Streams**

Setting Instream Flow Standards; Stream Restoration



RECEIVED
COMMISSION ON WATER RESOURCE MANAGEMENT
18 JUN 20 AM 8:22
COMMISSION ON WATER RESOURCE MANAGEMENT

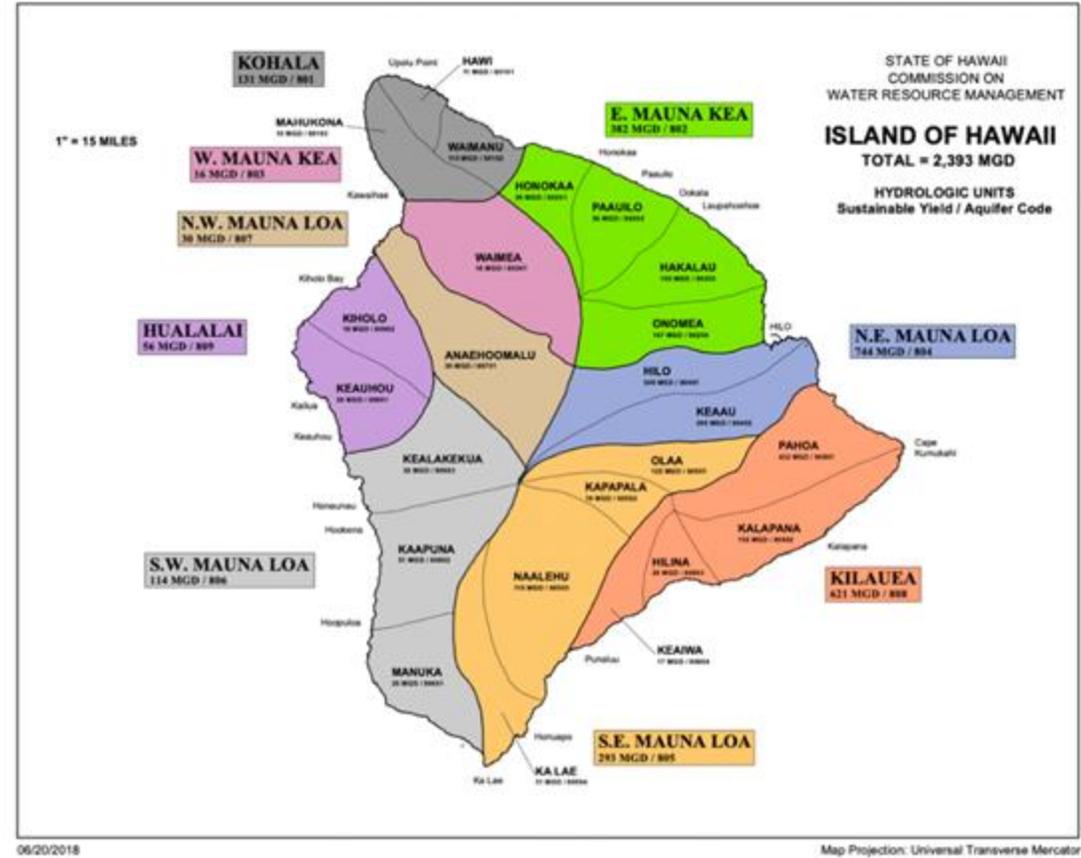
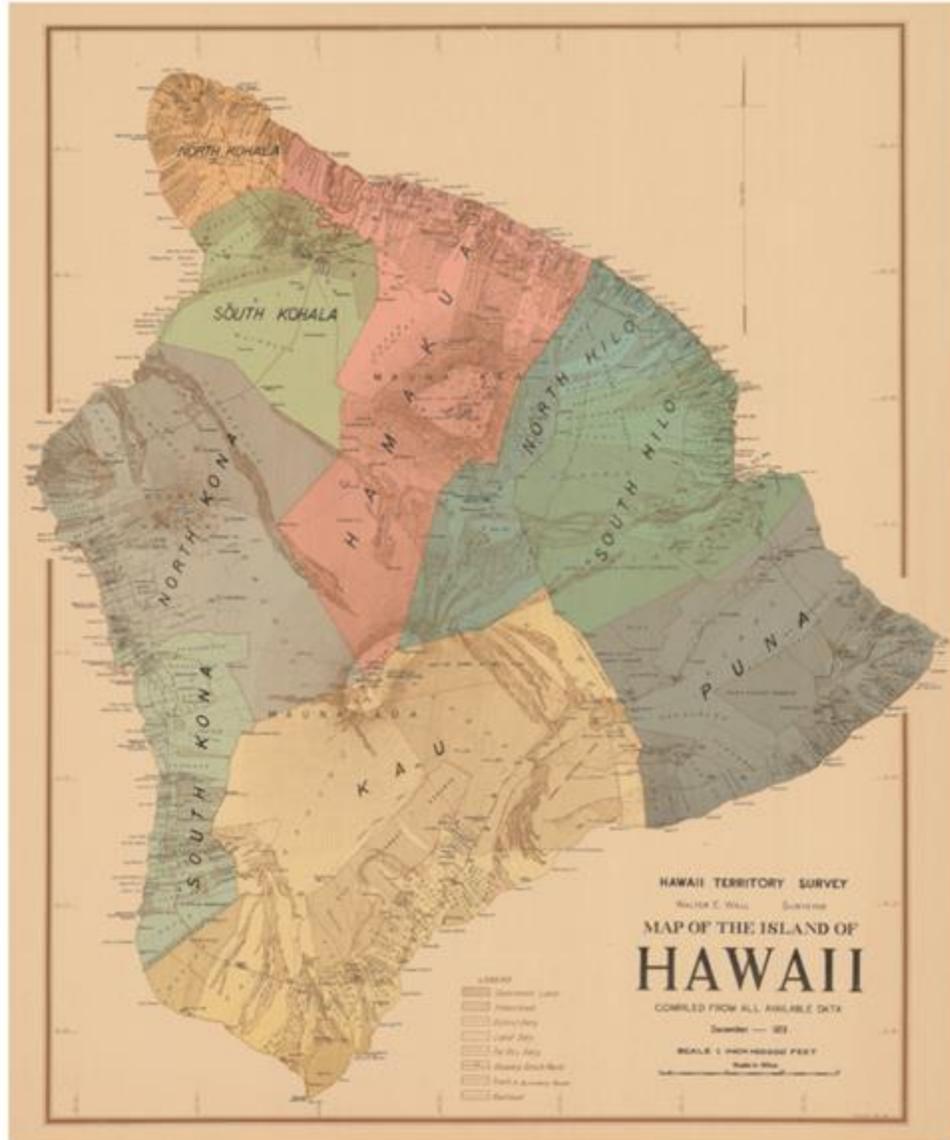
STATE OF HAWAII
Case No. CC16MA13-01
PETITION TO AMEND INTERIM INSTREAM FLOW STANDARDS FOR HONOPOU, HANEHOI, PUOLUA (HUELO), WAIKAMOI, ALO, WAHINEPEE, PUOHOKAMOA, HAIPUAENA, PUNALAU, KOLEA, HONOMANU, NUAAILUA, PINAAU, PALALOHUE, OHIA (WAIANU), WAOKAMOI, KUALANI (DAMAU), WAILUANI, WAIKANI, WEST WAILUANI, EAST WAILUANI, KOPELUA, PUAKAA, WAKOPIU, PAAKIA, WAIKAA, KAPAUUA, HANAWI, AND MAKAPII STREAMS

Palauhulu	Full	11	n/a	
Pi'ina'au	Full	14	n/a	
Nua'ailua	Connectivity	0.28	2.2	
Honomanu	H90	4.2	4.2	
Punalau/Kolea	H90	4.5	2.9	
Ha'ipua'ena	Connectivity	4.9	1.36	
Puohokamoa	Connectivity	8.4	1.1	Below Hana Highway
Wahinepe'e	None	0.9	0.9	Above Hana Highway
Waikamoi	H90	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch
Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

FINDINGS OF FACT, CONCLUSIONS OF LAW, & DECISION AND ORDER

I hereby certify that the foregoing is a true and correct photostatic of the original document on file in the office of the Commission on Water Resource Management.
Dated 2017 06 20 by [Signature] Deputy for Water Resource Management

Sustainable Yield & Groundwater Hydrologic Unit Boundaries



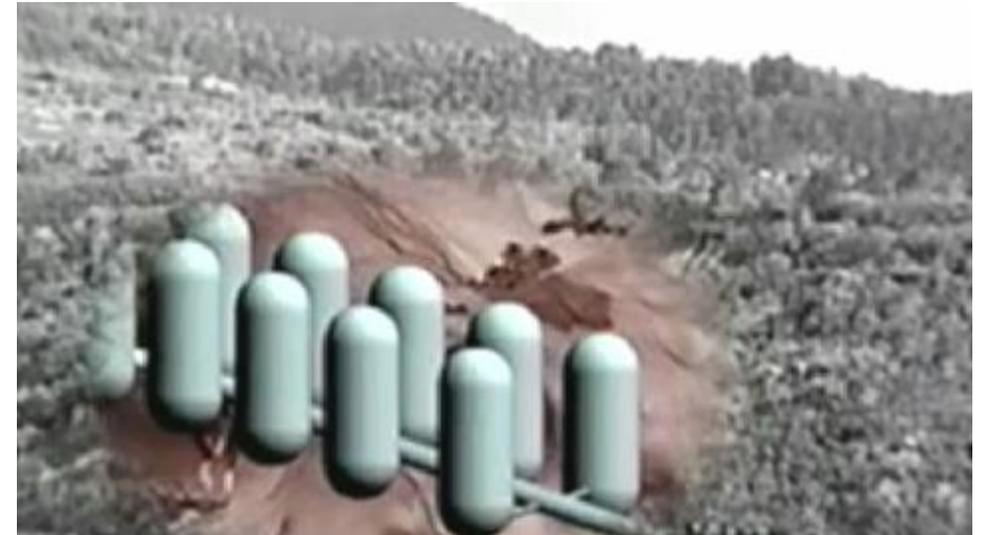
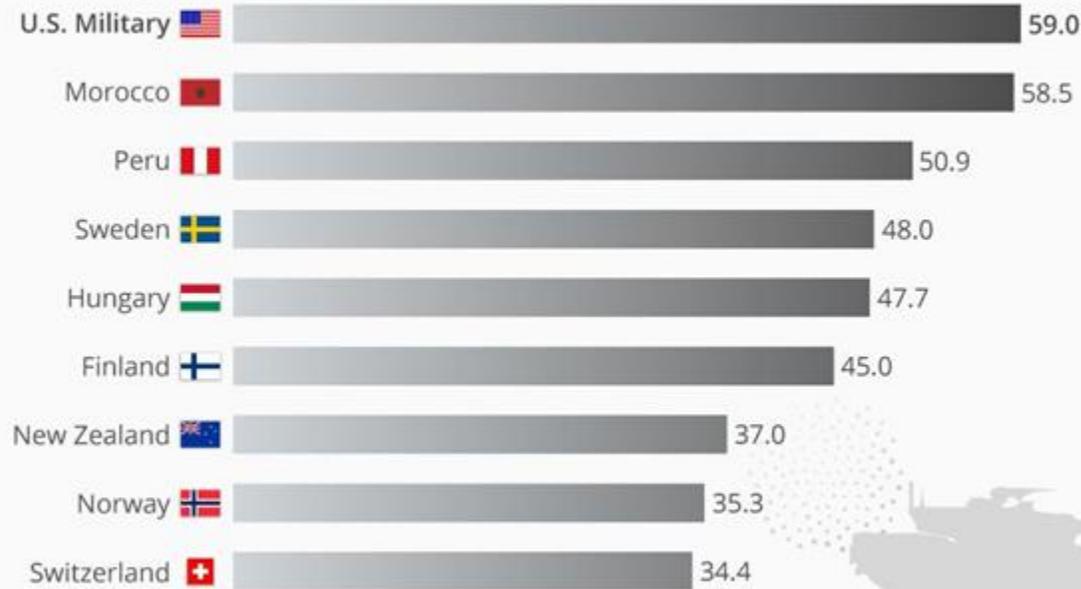
The Cost and Environmental Damage of Militarism

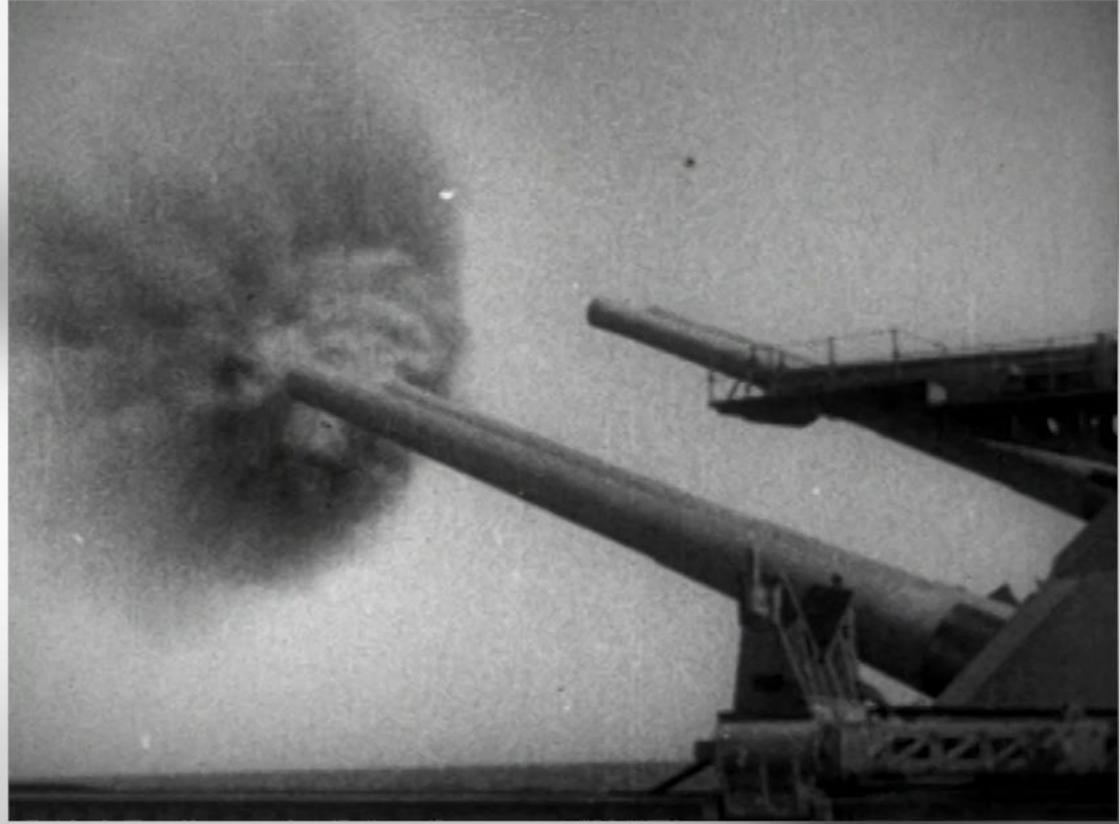
- US Navy Fuel tanks leaking into O‘ahu aquifer – They are currently being drained
- United States military exempt from reporting Co2 Emissions after US withdrawal from 1997 Kyoto Protocol

Since 1943 - About 200,000 gallons spilled

The U.S. Military Emits More CO₂ Than Many Nations

Estimated carbon dioxide emissions in 2017 (million tonnes)







Advancing Aloha 'Āina; Islands and Many Hats

USN
Draw the Toxics

POISON
WATER
FROM A
POISONED
GOV.

Navy Legacy
Lies and Pollution

NAVY OUT
OF RED HILL
NOW!

SHUT
IT
DOWN

DE-OCCUPY
TO SAVE OUR
LIVES

Advancing Aloha 'Āina; Islands and Many Hats

NAVY- WILL YOU
ING NO
RED
ANKS

FLUSH
THE
NAVY

EMPTY
THE

OLA
I
KA
WAI

STOP POISONING
MOMMY, I DONT
FEEL
GOOD
OUR WATER!!!

Shut Down
NAVY

We are the last generation that can reverse climate crisis



CLIMATE

Earth has 11 years to cut emissions to avoid dire climate scenarios, a report says

November 4, 2021 · 10:06 AM ET

SCOTT NEUMAN



MEETINGS COVERAGE
GENERAL ASSEMBLY

SEVENTY-THIRD SESSION,
HIGH-LEVEL MEETING ON CLIMATE AND SUSTAINABLE
DEVELOPMENT (AM & PM)

GA/12131
28 MARCH 2019

Only 11 Years Left to Prevent Irreversible Damage from Climate Change, Speakers Warn during General Assembly High-Level Meeting

Ambition, Urgency Needed to Address Global Emergency, Secretary-General Says

Just over a decade is all that remains to stop irreversible damage from climate change, world leaders heard today as the General Assembly opened a high-level meeting on the relationship between the phenomenon and sustainable development.

The meeting — held pursuant to General Assembly resolution 72/219 (2017) — will run through 29 March with a focus on protection of the global climate for present and future generations, in the context of the economic, social and environmental dimensions of the 2030 Agenda for Sustainable Development.

Highlights

Security Council 2022 Round-Up
New York, 2022

Highlights of General Assembly 77th Session
New York, 21 Sep. - 30 Dec. 2022

High-level meetings of the 77th session of the General Assembly
New York, 20-26 September 2022

Daily Noon Briefing



WHITE SUPREMACY, MILITARISM, AND THE 1%

SUSTAINABLE FUTURE

Billionaires emit a million times more greenhouse gases than the average person: Oxfam

PUBLISHED TUE, NOV 8 2022-4:56 AM EST | UPDATED TUE, NOV 8 2022-AT 7:06 EST



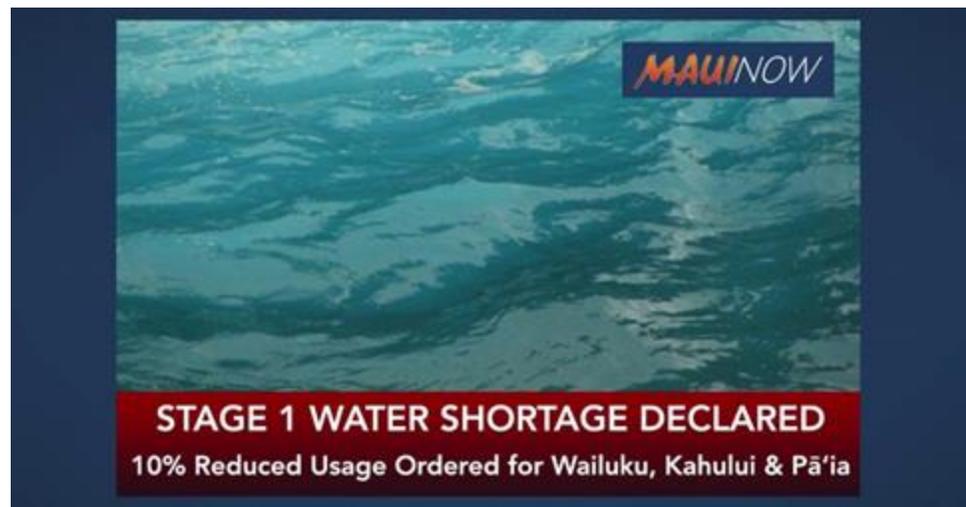
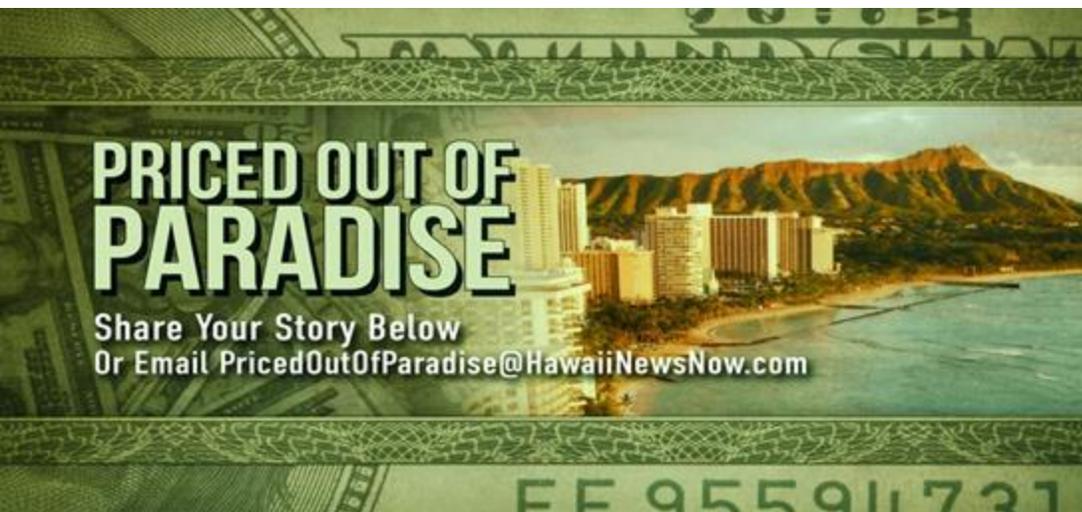
Hannah Ward-Glenton
@HANNAHSWG

SHARE    

KEY POINTS

- The investments of 125 of the world's richest billionaires cause 393 million metric tonnes of carbon dioxide emissions every year, according to a report by Oxfam.
- Billionaires “have escaped accountability for too long”, Danny Sriskandarajah, CEO of Oxfam GB, says.





Navy Confirms Petroleum Was Detected In The Red Hill Well

The state Department of Health said it had just received the Navy's test results and it stood by its recommendations on water usage.



Lawsuit: Red Hill families drank 'antifreeze' in fuel-contaminated water

HAWAII NEWS

Hawaii's overtourism may get worse than ever

By Lebawit Lily Girma Bloomberg News - May 6, 2023



Study: Nearly half of Hawaii families with children are experiencing food insecurity

social,
environmental &
political

Aloha 'Āina as Justice



Community-based
subsistence fishing areas
(CBSFA)



Biocultural
restoration of social-
ecological systems



Indigenous-led initiative
encouraging economic recovery
efforts informed by Hawaiian
values



AT THE END OF THE ROAD, THERE IS 'ĀINA

All roads to islands begin and end at the Water

Lessons from Hawai'i:

Public Trust Doctrine Matters
Culture and Place Matter

“Ola i ka Wai”
There is only 1 Water



Integration and De-silo-ing of Policy and Management

Economic Systems that damage water must be changed

WHAT WILL WE DO?

SEVEN ACTIONS FOR THE FUTURE OF WATER IN HAWAII



INTERNATIONAL WATER RESOURCES ASSOCIATION'S
1ST ISLANDS WATER CONGRESS
FAROE ISLANDS - SEPTEMBER 4-6, 2024

01 OLA I KA WAI “Life because of Water” Cherish and defend the water that surrounds you

02 LET WAI FLOW Restore streams and ecosystems

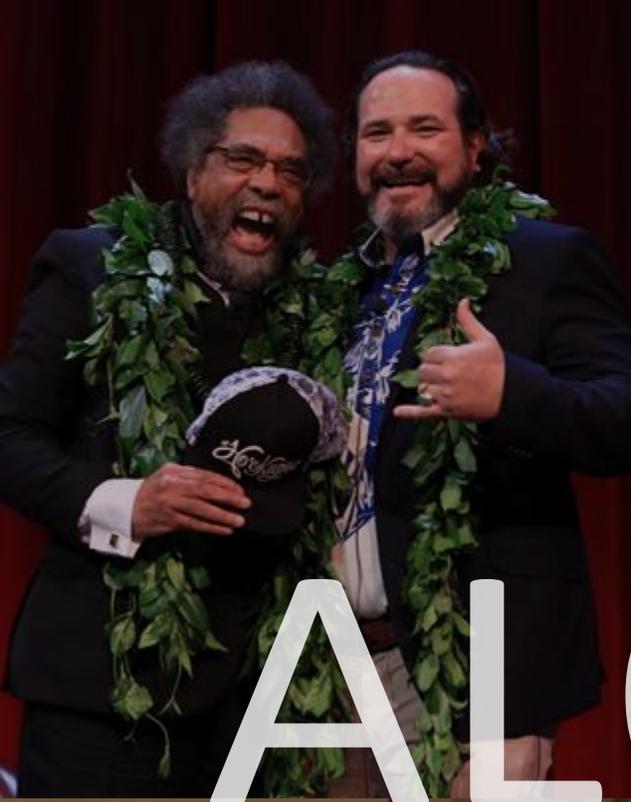
03 REDUCE & REUSE Support sustainable agriculture and greywater systems

04 RESTORE WAIWAI Support efforts to create regenerative circular economy

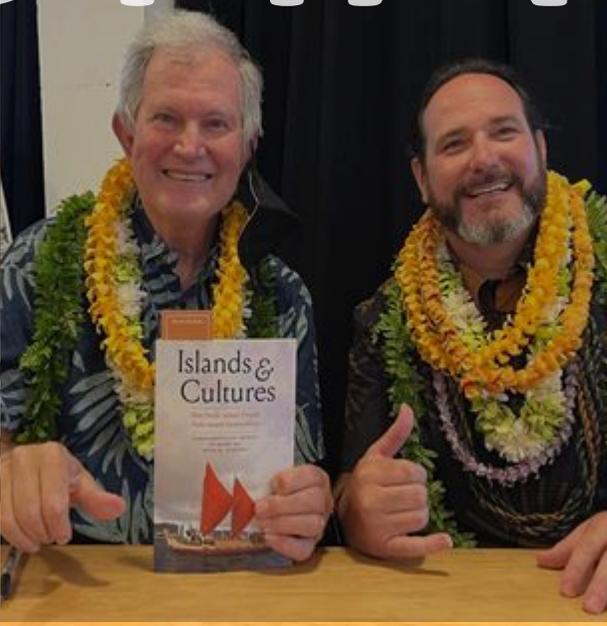
05 KIA'I WAI Speak and act for future generations rights to experience life in our islands

06 KAHU WAI Support Landback and the de-occupation of Hawai'i and indigenous peoples around the world

07 BE LIKE WAI Recognize deeper insights into water and our identity as people



ALOHA 'ĀINA



The Beauty of Mauna Kea (Keola Beamer)

My friend and I would sometimes roam
The trails of Mauna Kea
And in the evening, we'd come home
And see her standing there
The moon moves around her when she sleeps
The clouds stand beside her when she weeps
And I could be forgotten
And a thousand miles away
And still I would recall
The beauty of Mauna Kea

Now to any land you go
She will be with you
If you love her like I do
O Mauna Kea

And I live in the city now
And I see different things
In the nights when I'm alone she is in my dreams
The wind spins around her when she wakes
The sun spreads its warmth across her face
And we could be forgotten
And ten thousand miles away
Still I would recall
The beauty of Mauna Kea
Of Mauna Kea
And still I would recall
The beauty of Mauna Kea

