

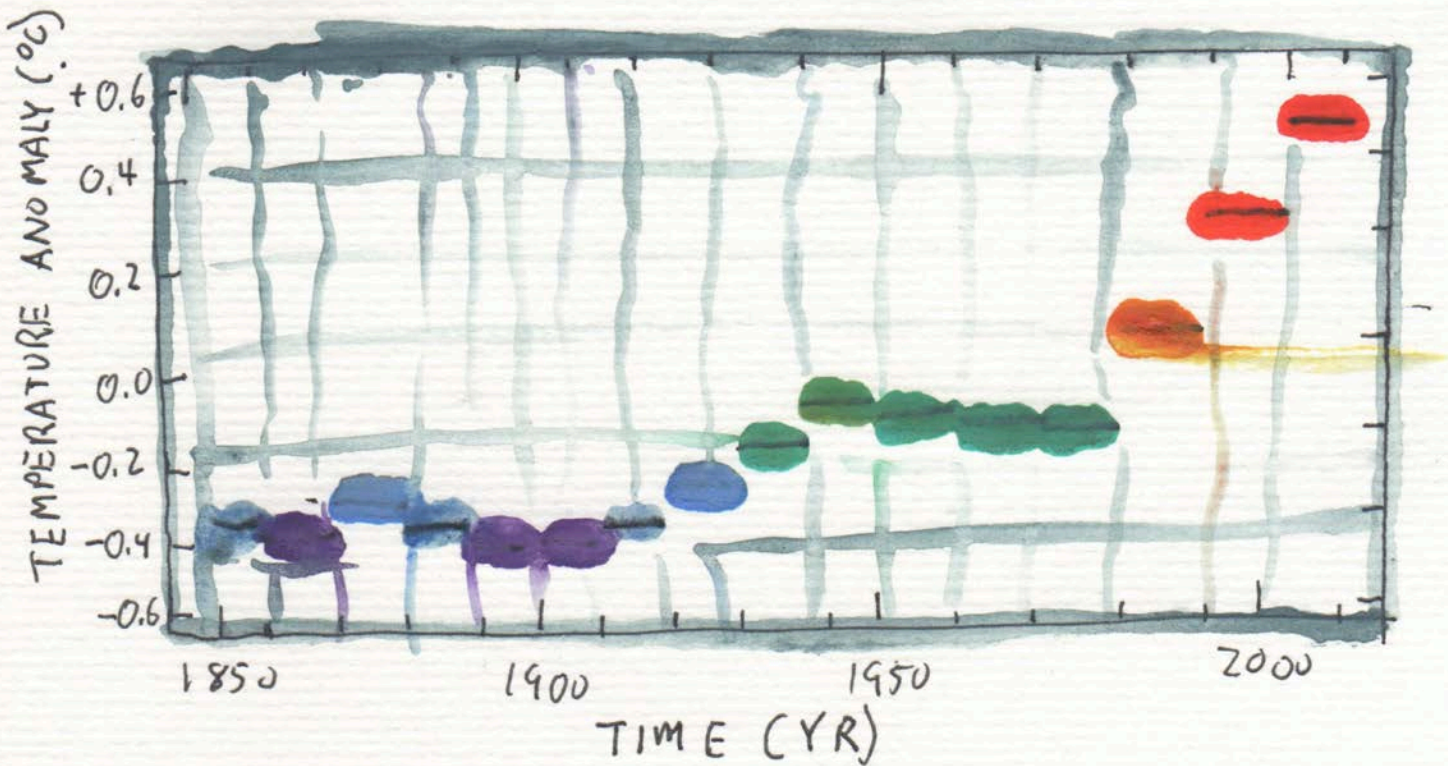
CLIMATE
CHANGE
SCIENCE
2013:
HAIKU

Gregory
C.
Johnson

Climate Change Science 2013: Haiku

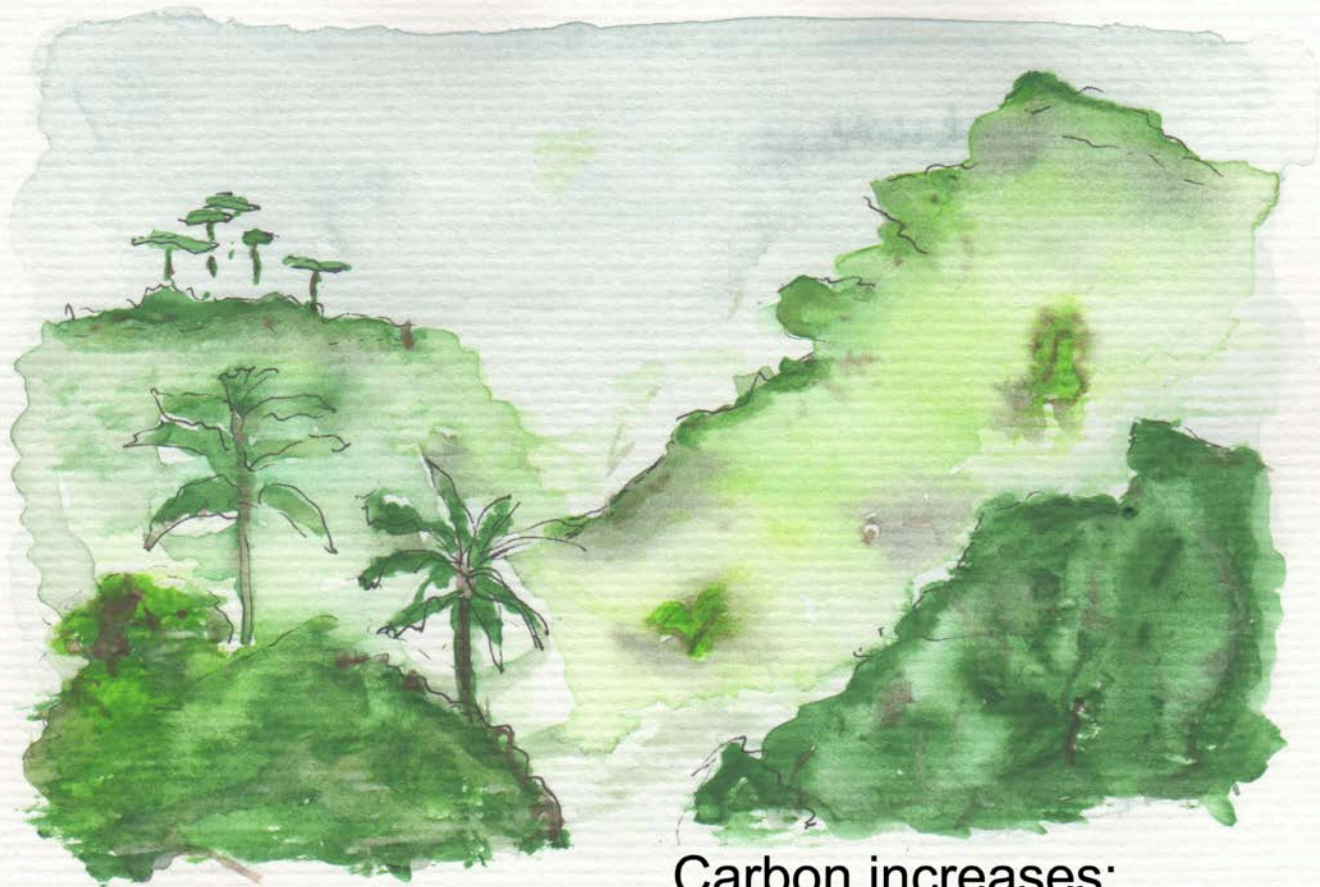
This work is my attempt to distill into Haiku: “The Summary for Policymakers of the Working Group 1 Contribution to the Intergovernmental Panel on Climate Change Fifth Assessment Report”. The result is solely my own creation, so any views or opinions expressed herein are my own, and do not necessarily reflect the views of the U. S. Government, the IPCC, or any other entity.

Gregory C. Johnson



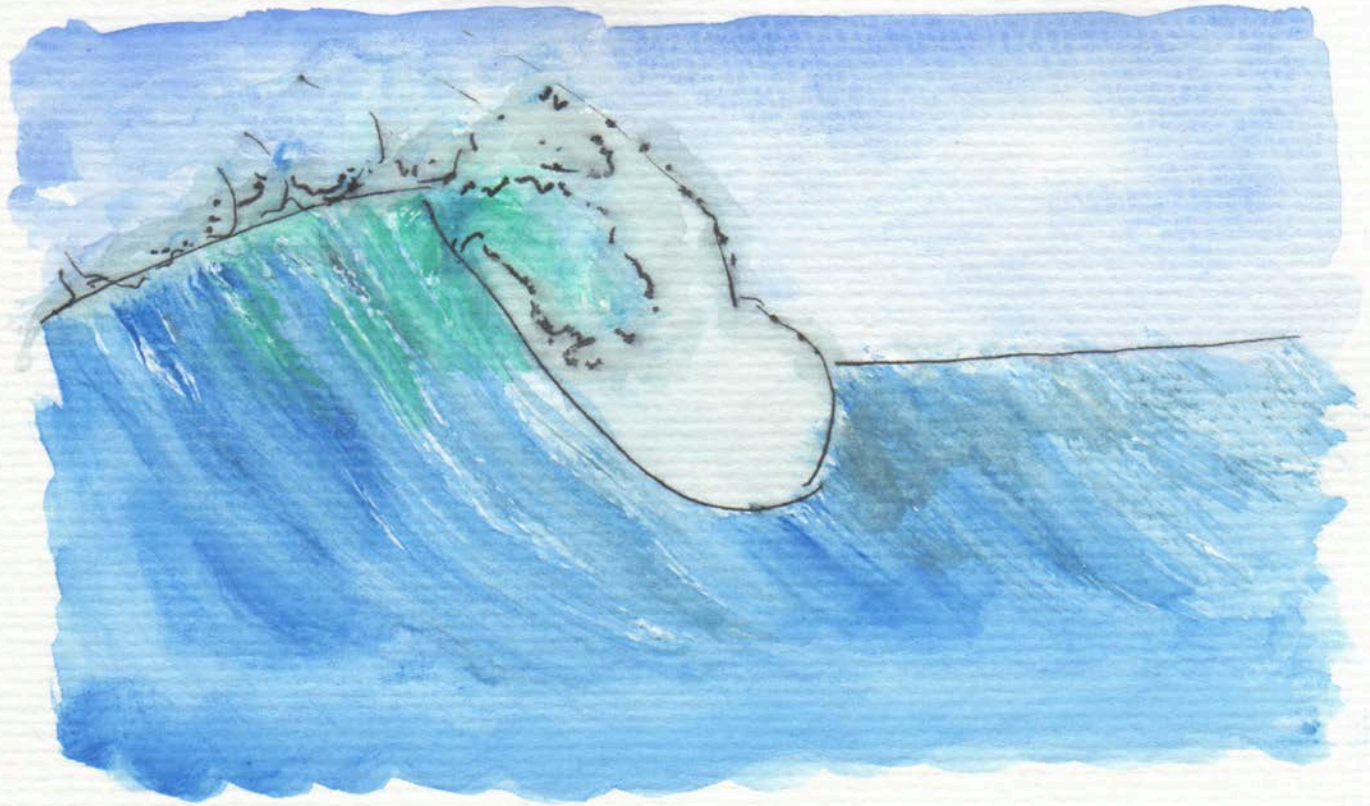
Big, fast carbon surge:
Ice melts, oceans heat and rise.
Air warms by decades.

HISTORY, EARTH



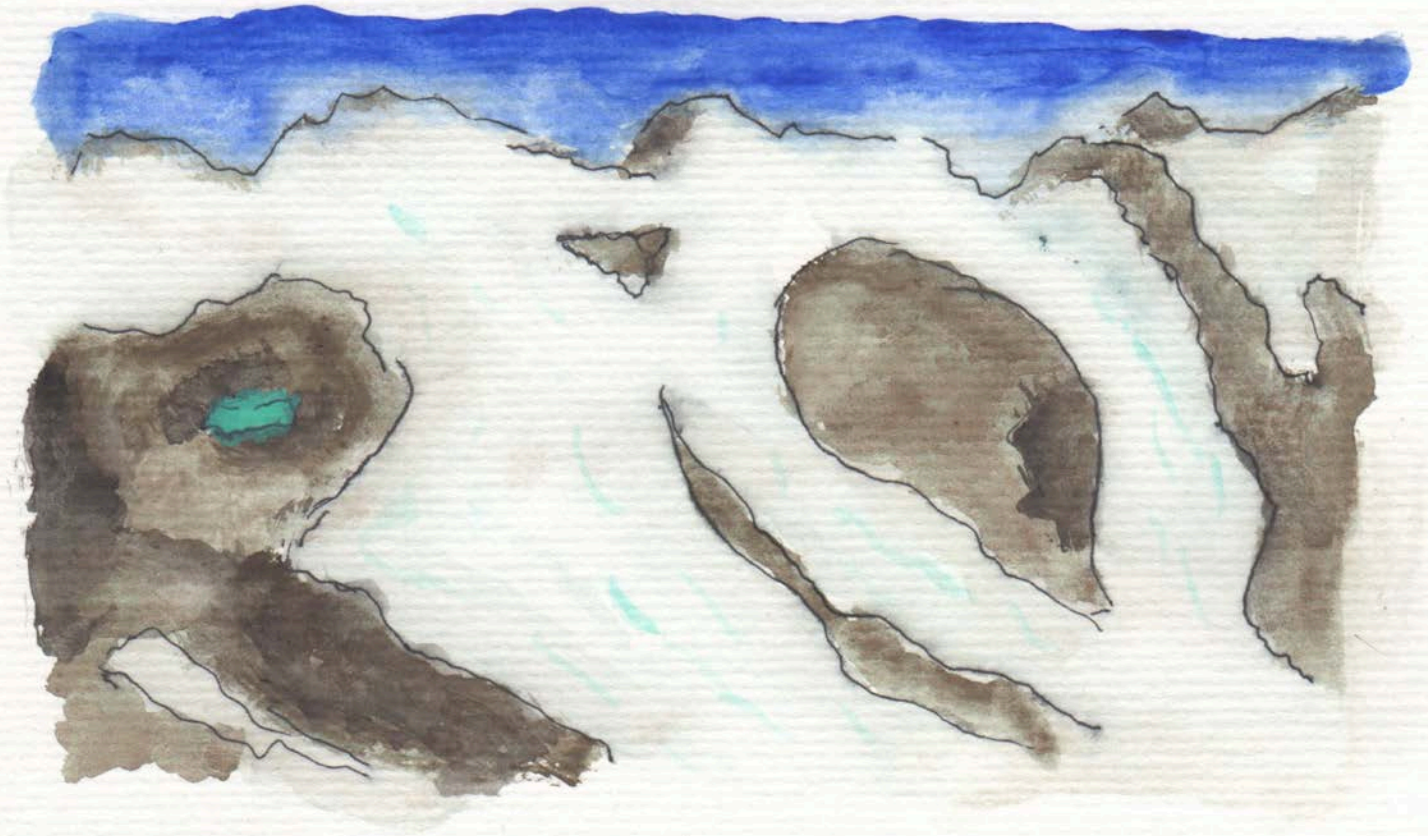
HISTORY, AIR

Carbon increases:
Air warms through century past.
More heavy rains fall.



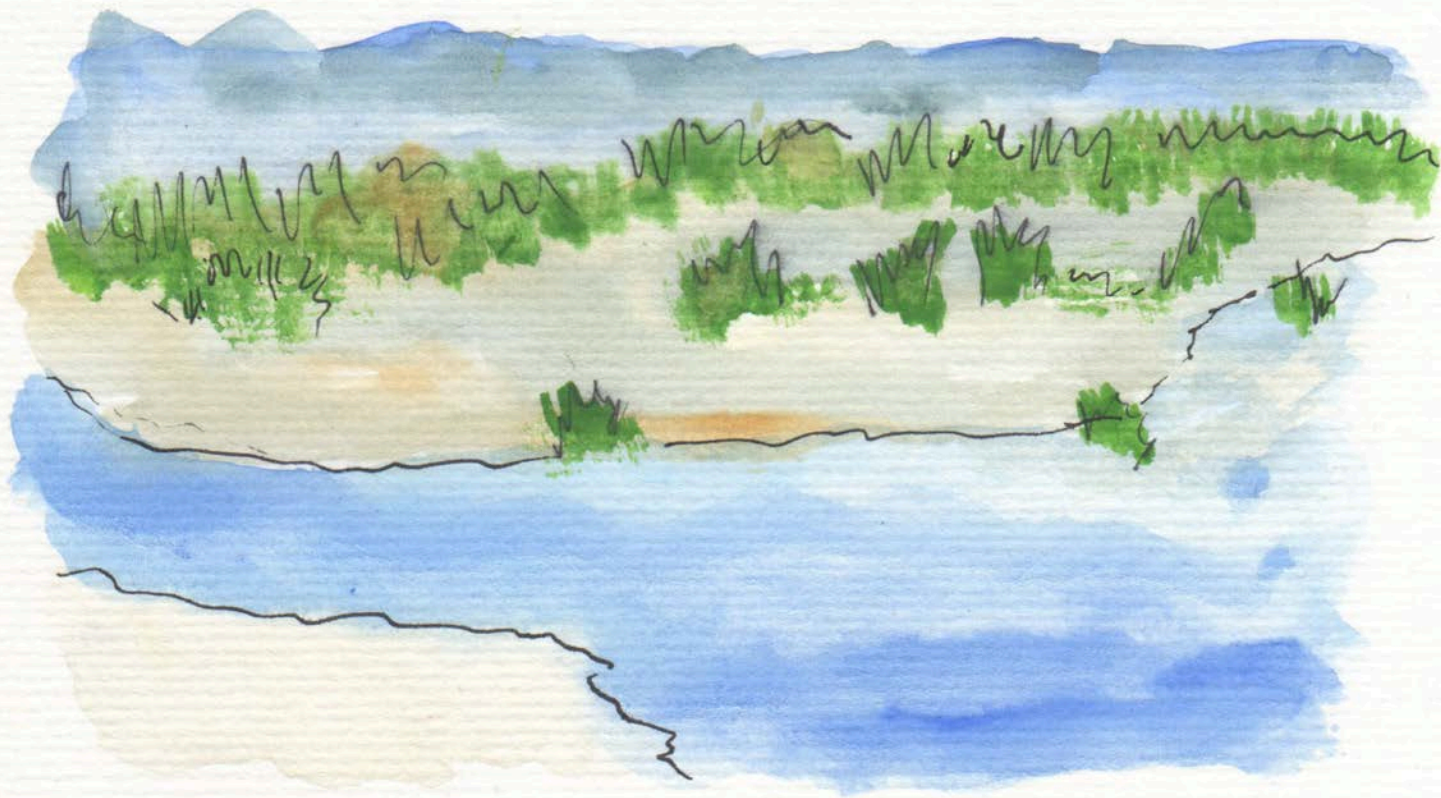
Abyss warms, coasts flood.
Air moistens – salt patterns shift.
Carbon sours oceans.

HISTORY, WATER



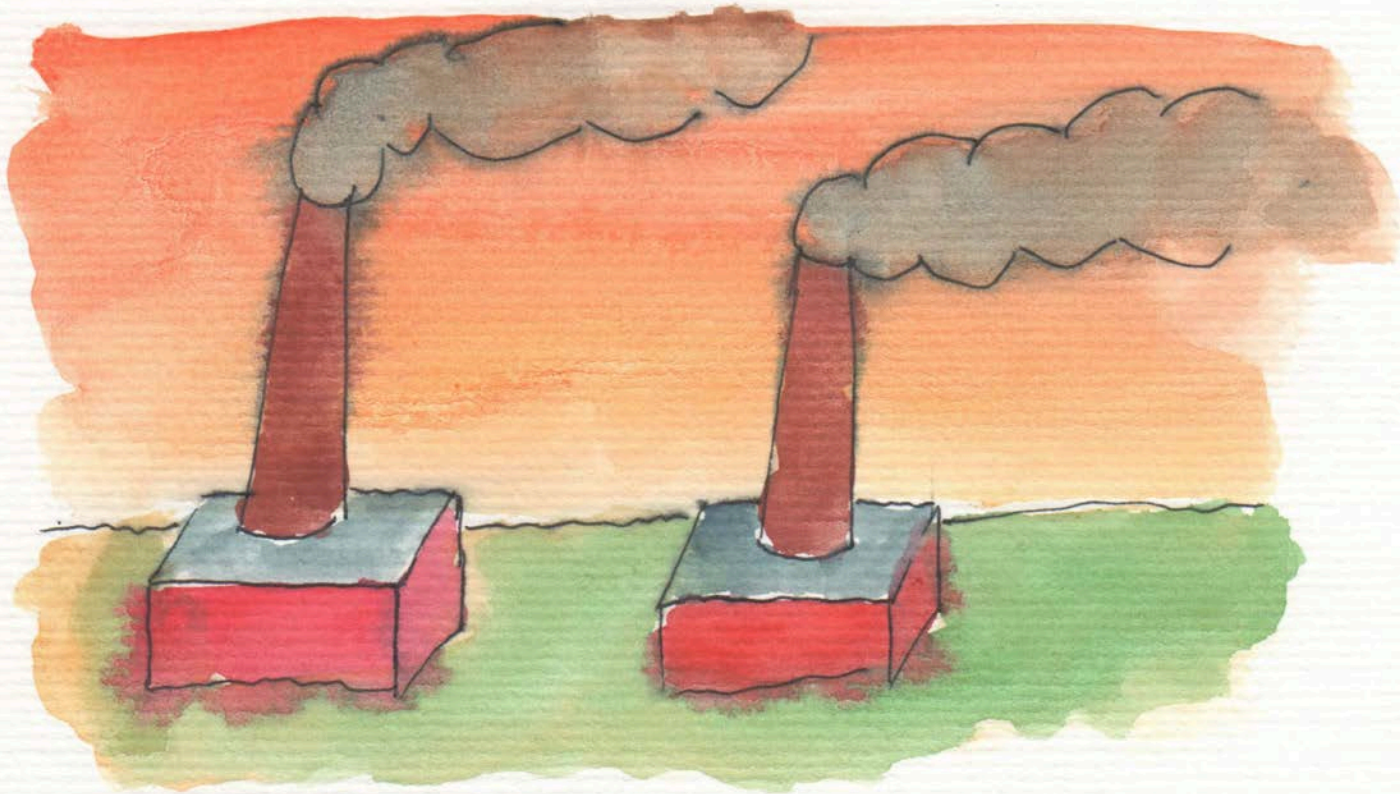
HISTORY, ICE

Glaciers and ice sheets
melt worldwide, speed increasing.
Sea ice, snow retreat.



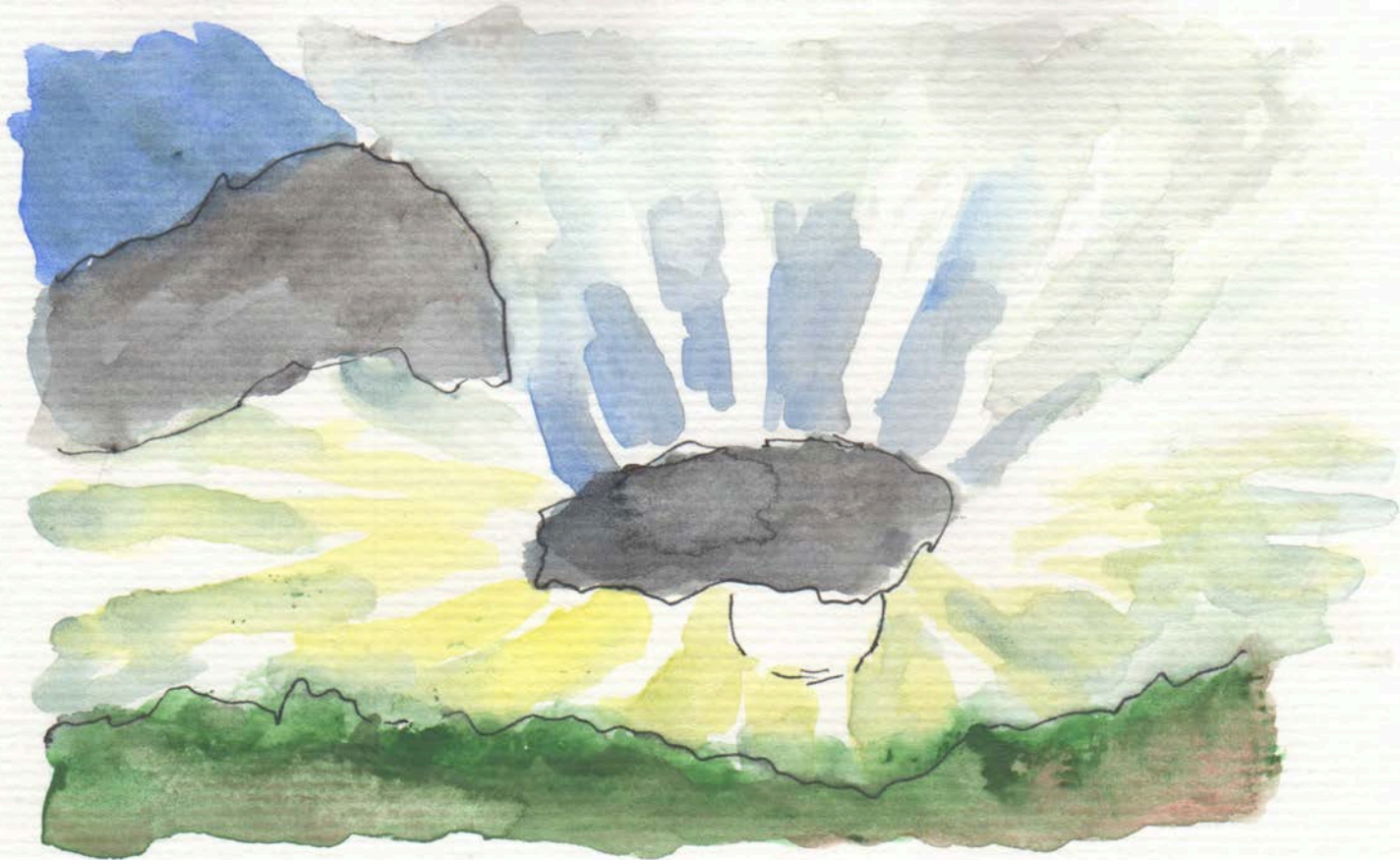
Seas rise as they warm.
Rates quicken last century.
Melting ice joins in.

WATER MEETS EARTH



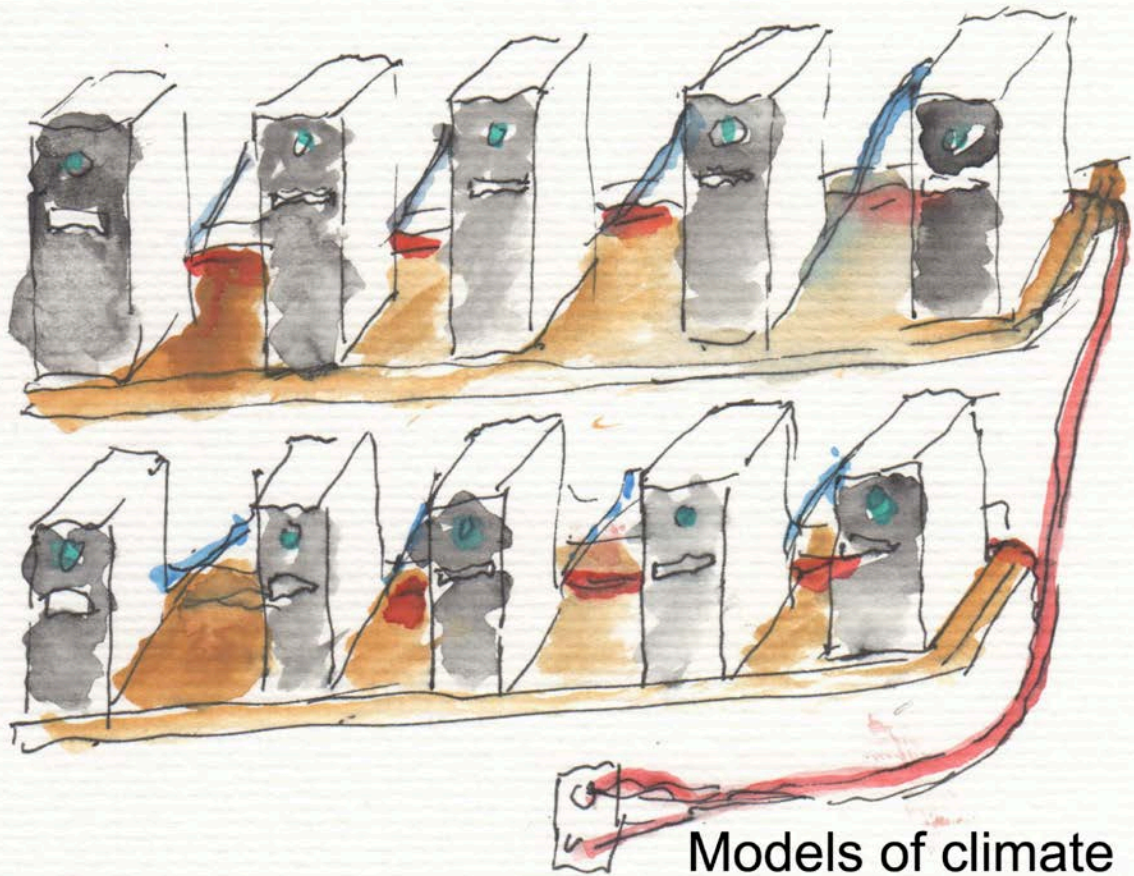
HISTORY, FIRE

Burning fuel, farming
trap heat and sour the oceans
beyond human ken.



CO₂, methane
warm despite sun-spots, dust, soot,
clouds, and volcanoes.

CHANGE DRIVERS



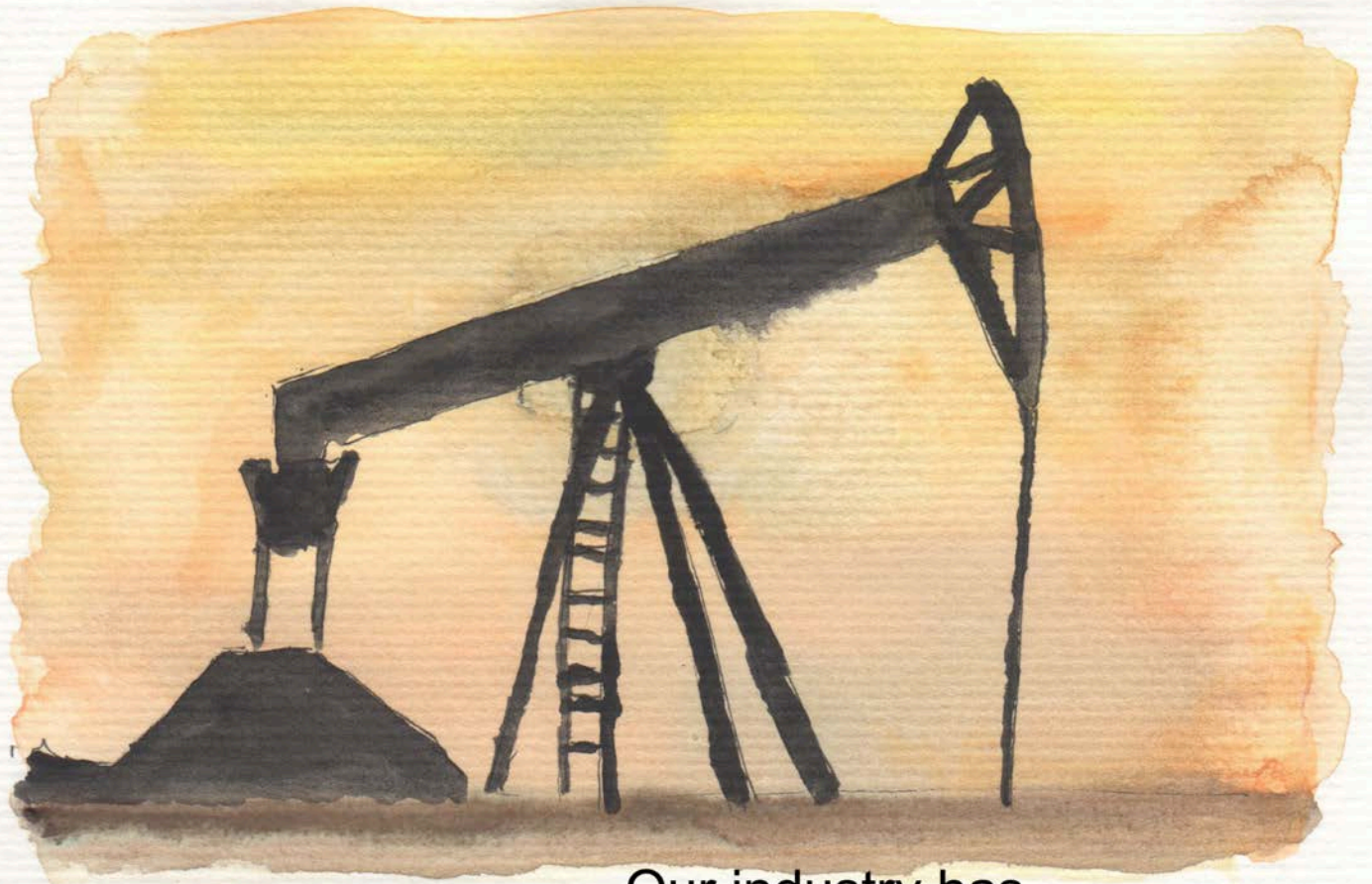
Models of climate
improve with time and details . . .
capture big patterns.

MODELS



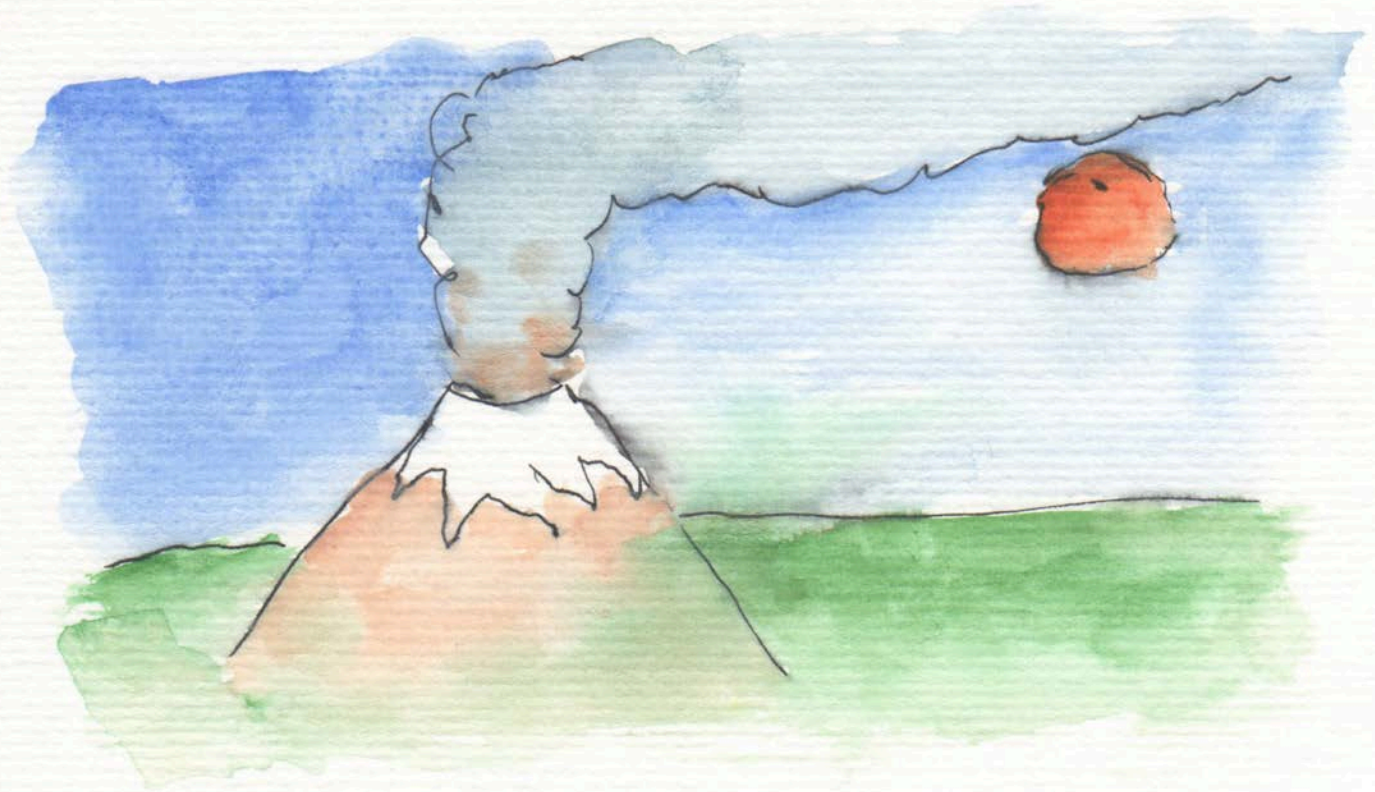
We burn
more carbon
air warms
for decades –
but seas . . .
for millennia.

RESPONSE



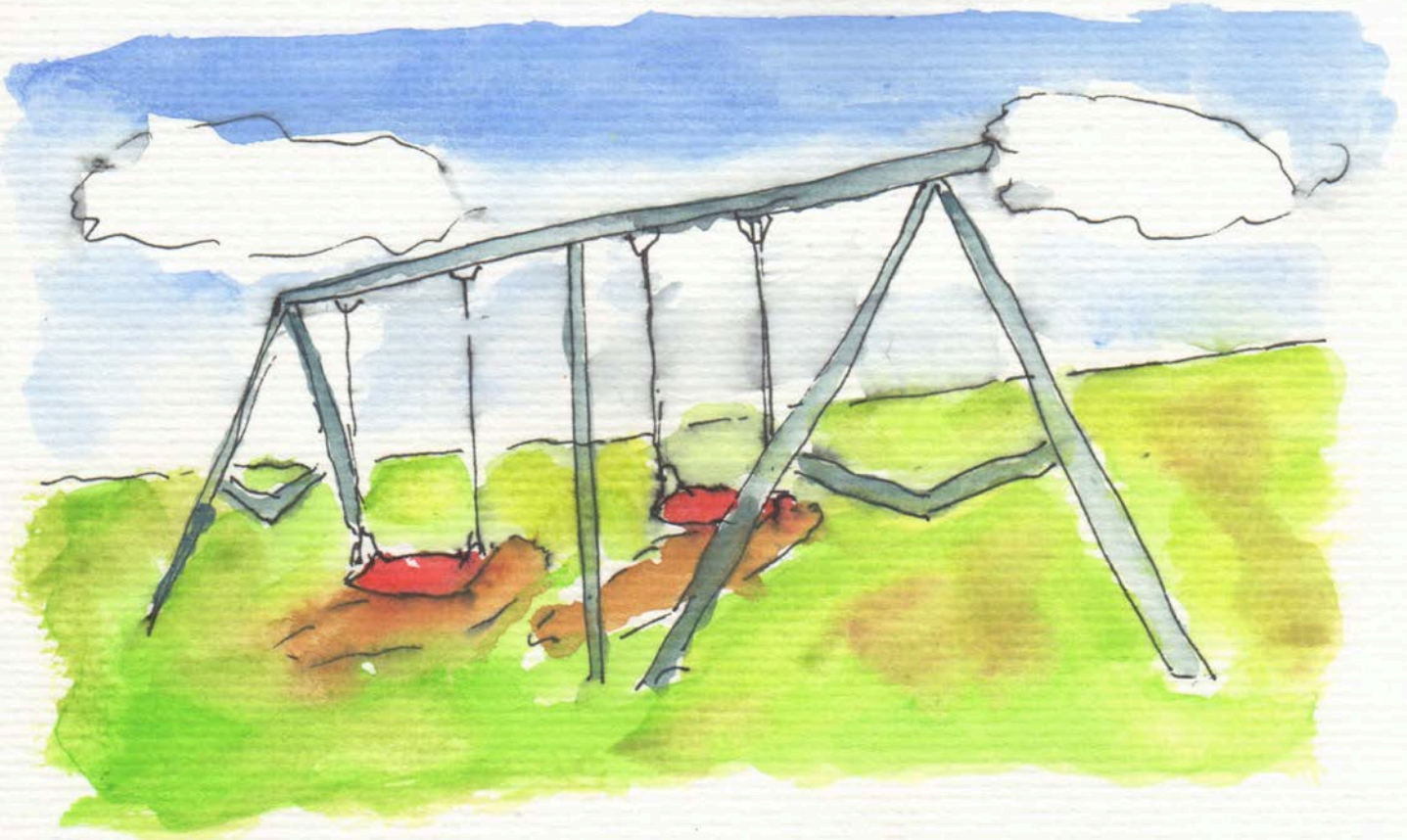
Our industry has
warmed oceans, air, lands – changed rains –
melted ice – raised seas.

ATtribution



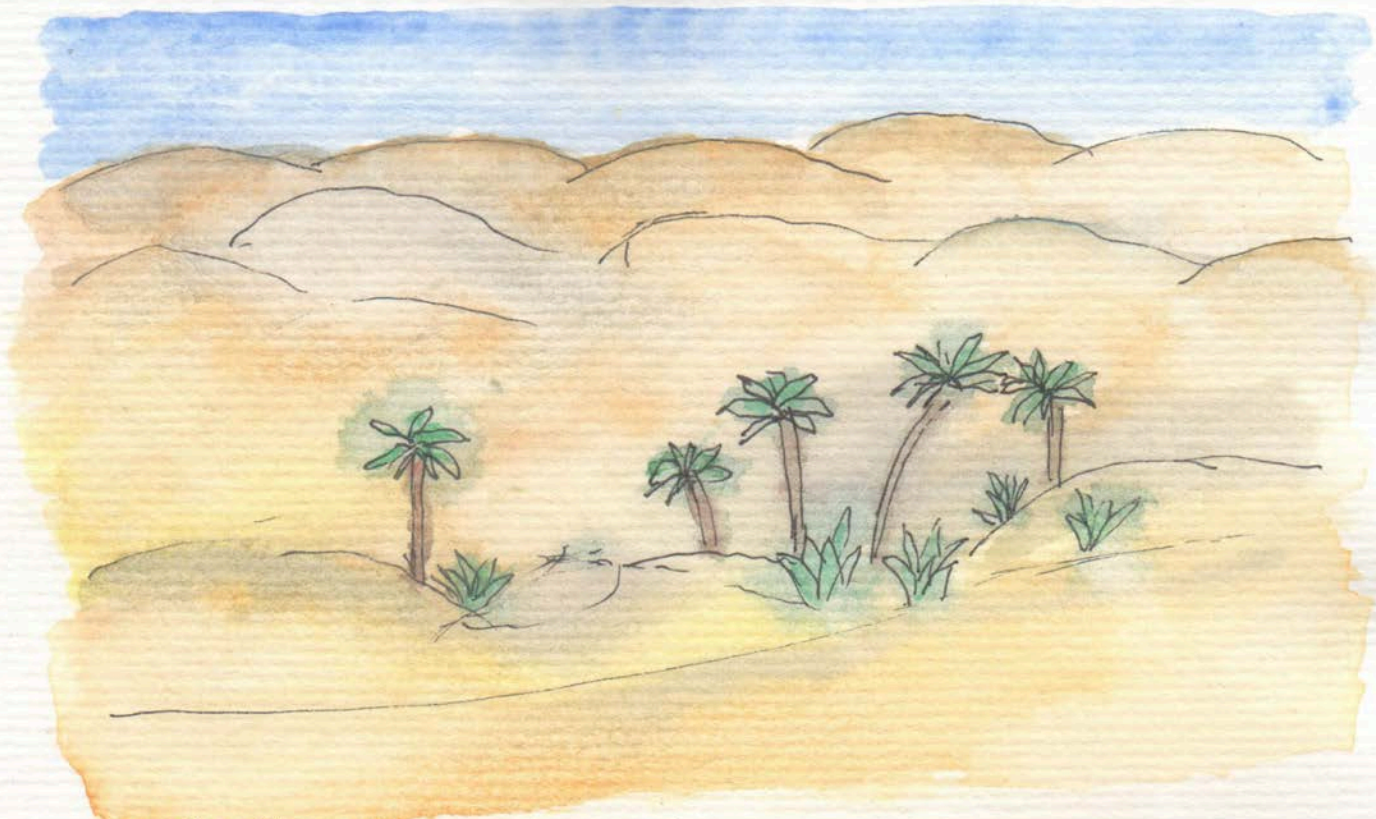
Recent air warming
slowed by volcanoes and sun?
Seas sequester heat.

A PAUSE



THE FUTURE

Forty years from now
children will live in a world
shaped by our choices.



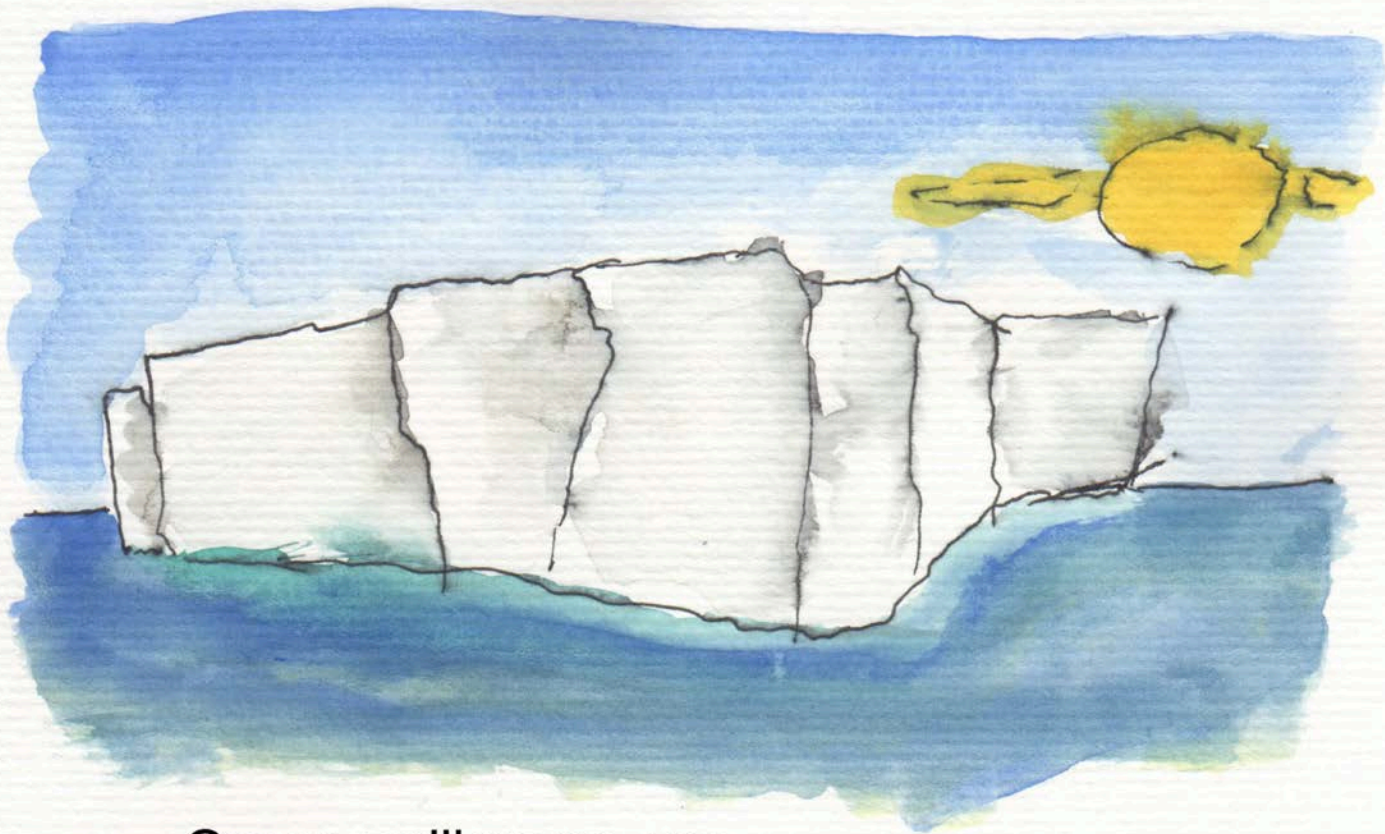
Arctic will warm most
and land more than sea - too hot.
Still, choices matter.

FUTURE, AIR



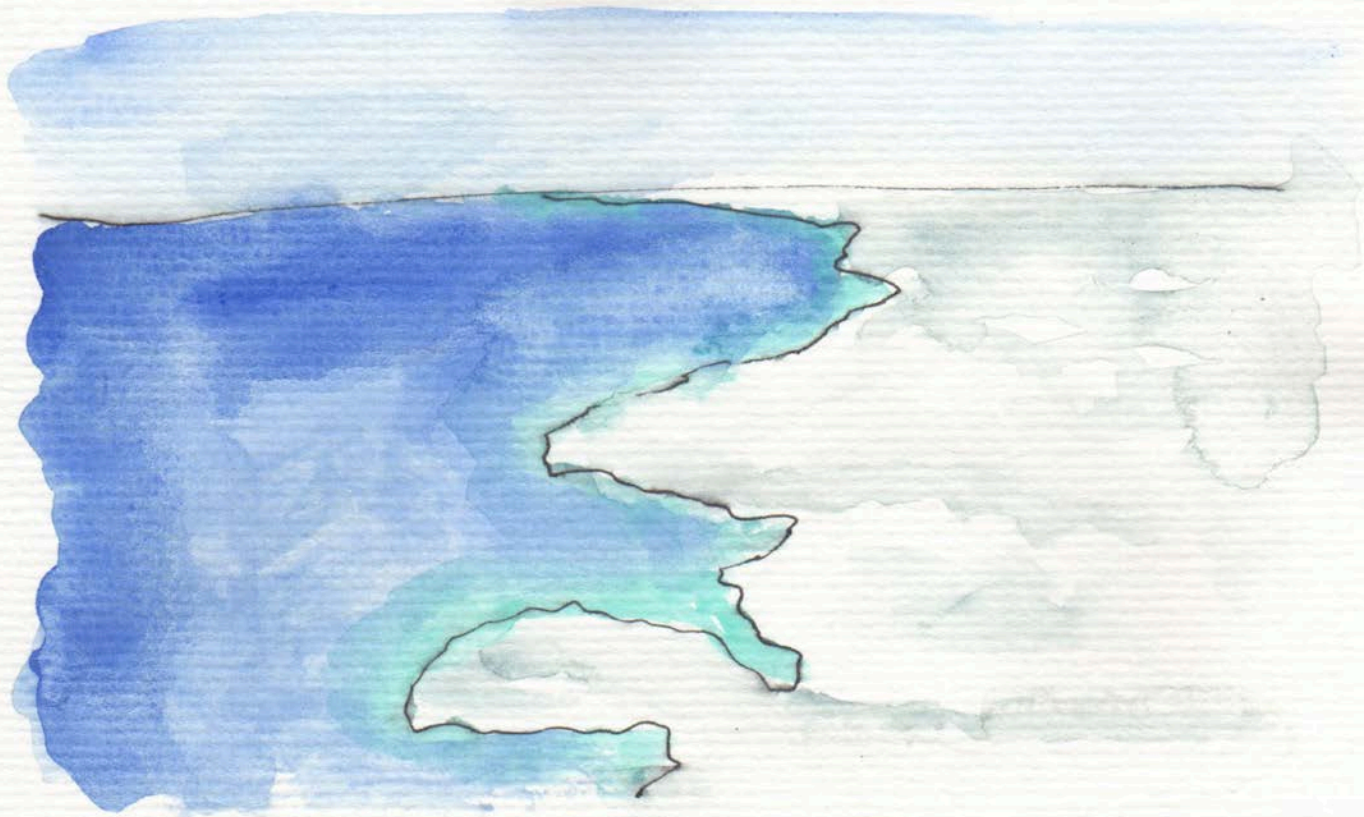
WATER MEETS AIR

Wet will get wetter
and dry drier, since warm air . . .
carries more water.



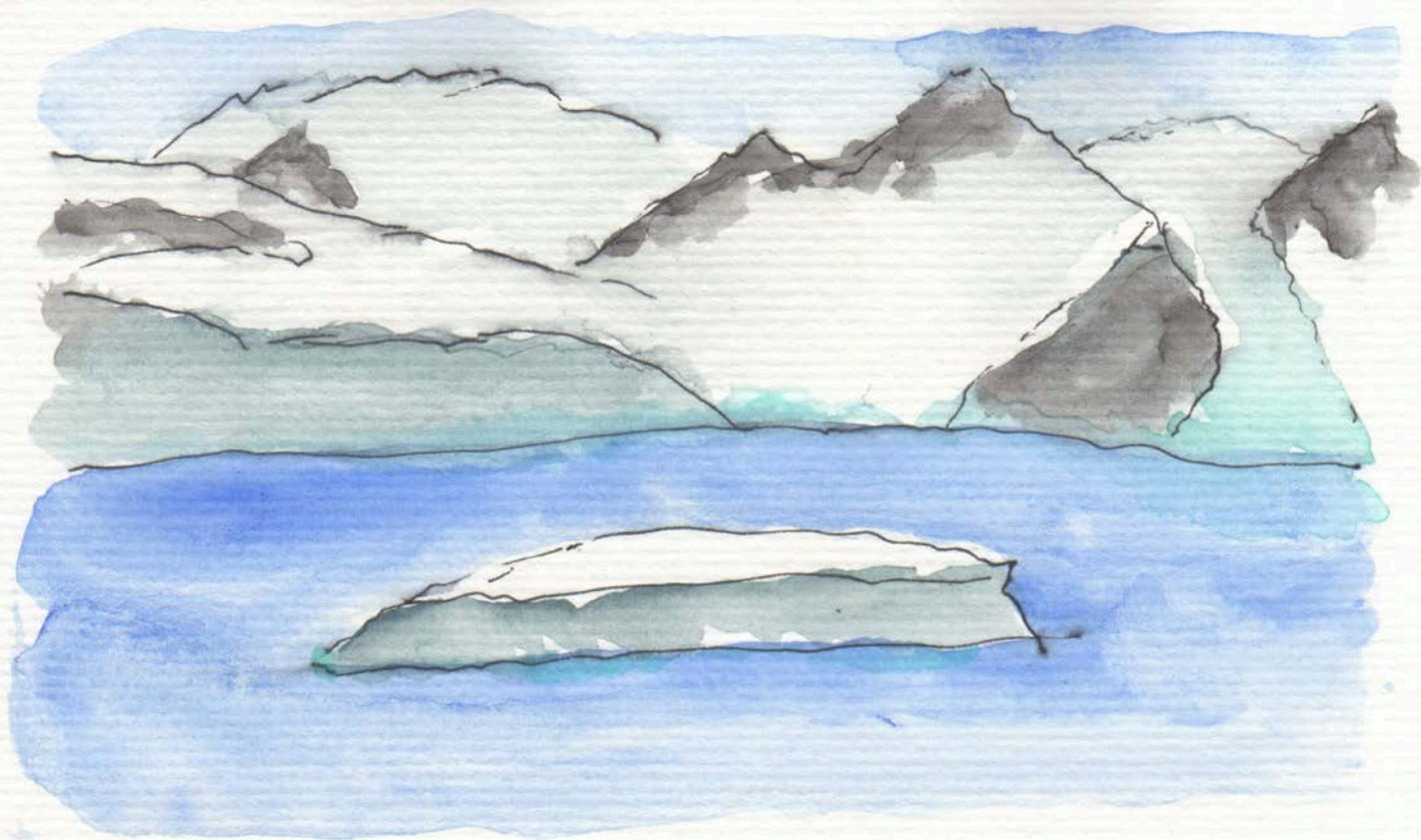
Oceans will warm, yes,
deep and wide, changing currents
that flow 'round the world.

FUTURE, WATER



FUTURE, ICE

Glaciers, snow recede.
No Arctic summer ice soon?
Frozen earth melts too.



Glaciers melt, seas warm,
giant polar ice sheets stir:
Seas may rise faster.

WATER MEETS EARTH 2



FUTURE, FIRE

Warming land, sour sea,
melting frozen Earth may spew
carbon back to air.



Fast, strong action will
reduce future warming, but . . .
rising seas certain.

FUTURE, REPRISE

