Promethean
Productions presents

Fire in the Past, Fire in the Mind, Fire in the Future

Triangulating fire anew

Steve Pyne

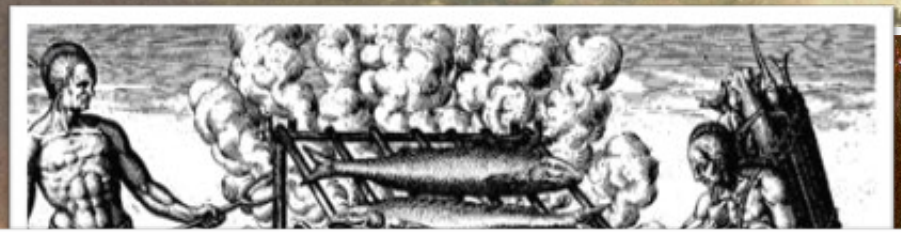
Fire in the Past

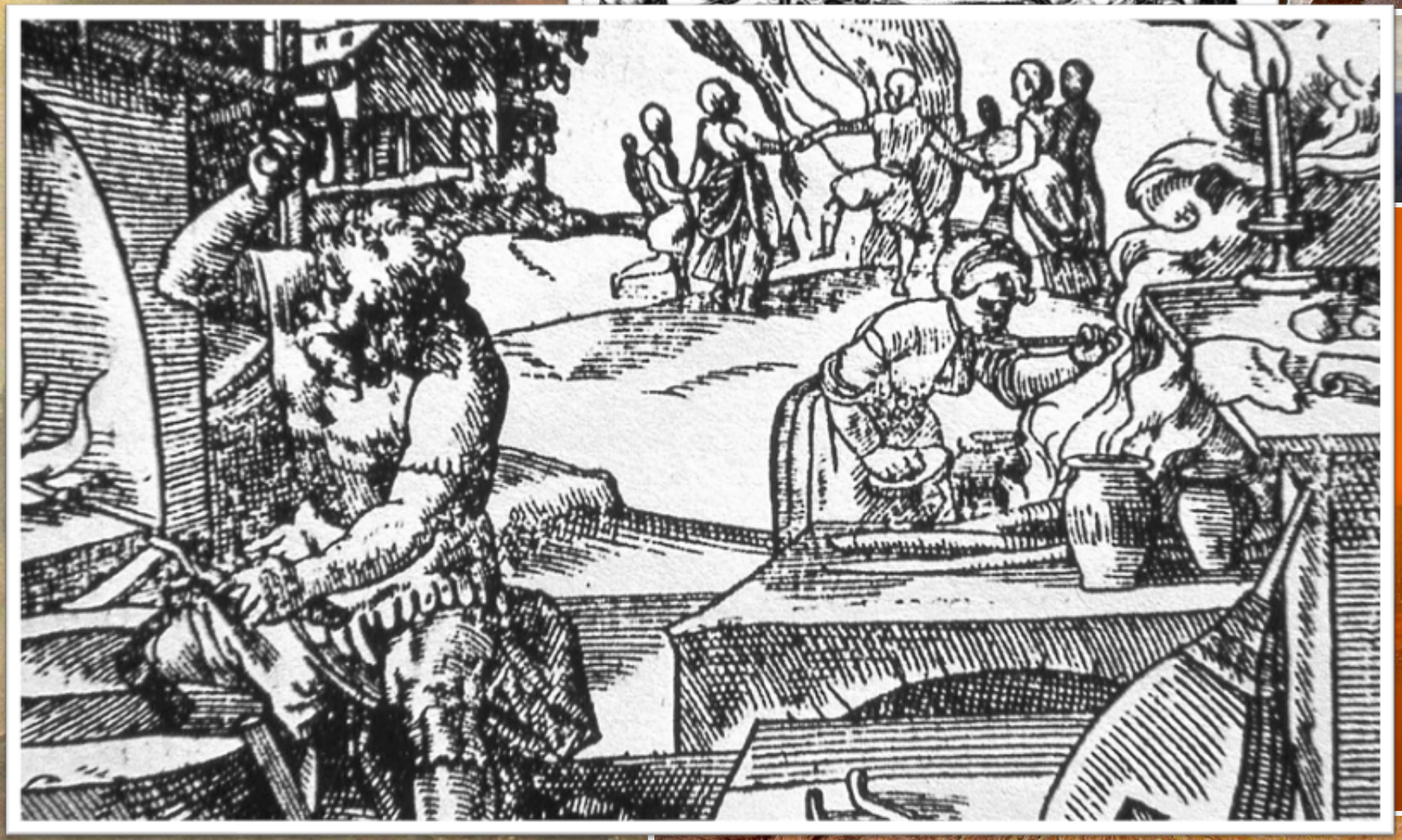
Writing a new narrative

A uniquely fire planet

Fire as creation of living world

cook food





At the end of the last glaciation, a fire-wielding creature met a fire-receptive world and they remade each other.

Forest Fires
1880 Census

Between Three Fires

First Fire

Forest Fires
1880 Census

Between Three Fires
Second Fire

Forest Fires
1880 Census
UNITED STATES
CONSTITUTIONAL POPULATION

Europe's first wave expansion

political imperialism

Europe's first wave expansion

political imperialism

ecological imperialism

diseases

plants

animal

Europe's first wave expansion

political imperialism

ecological imperialism

anima

Climate connection to demography and land use

The Little Ice Age (1550 to 1850 CE)

Europe's second wave expansion

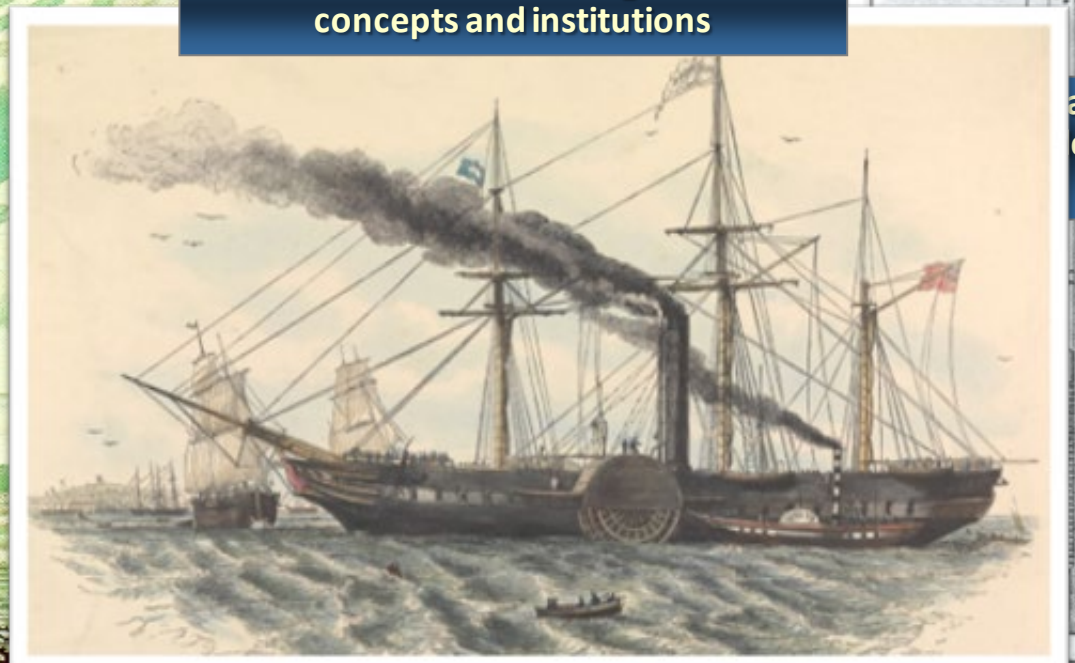
scientific revolution

technological revolution

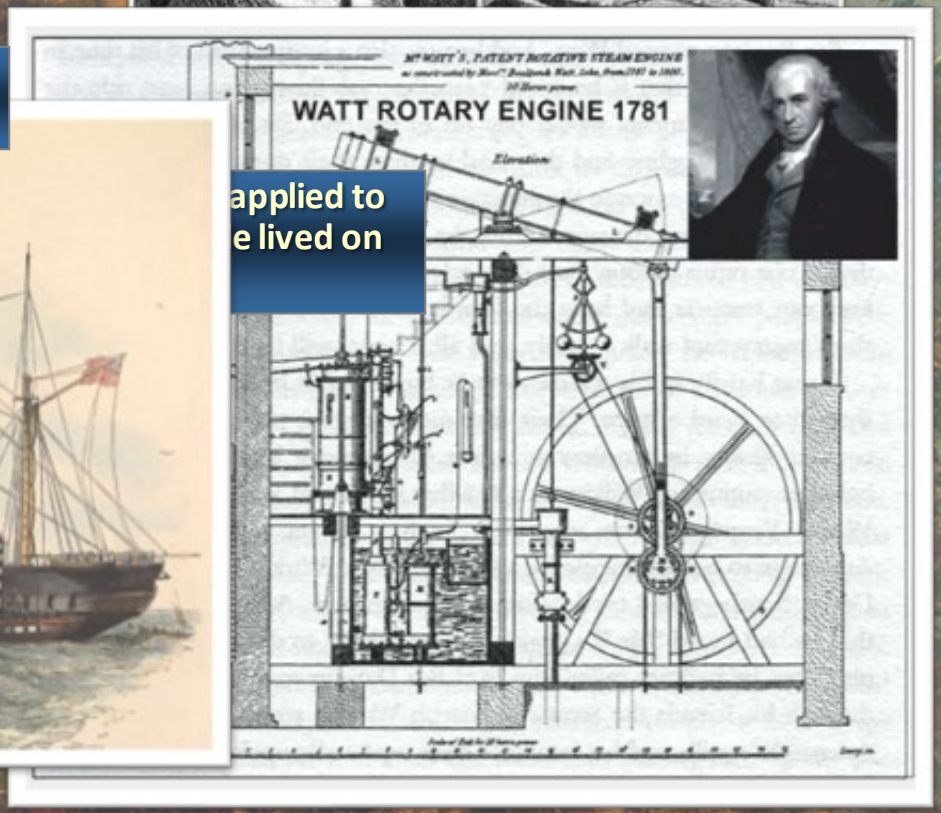
colonization

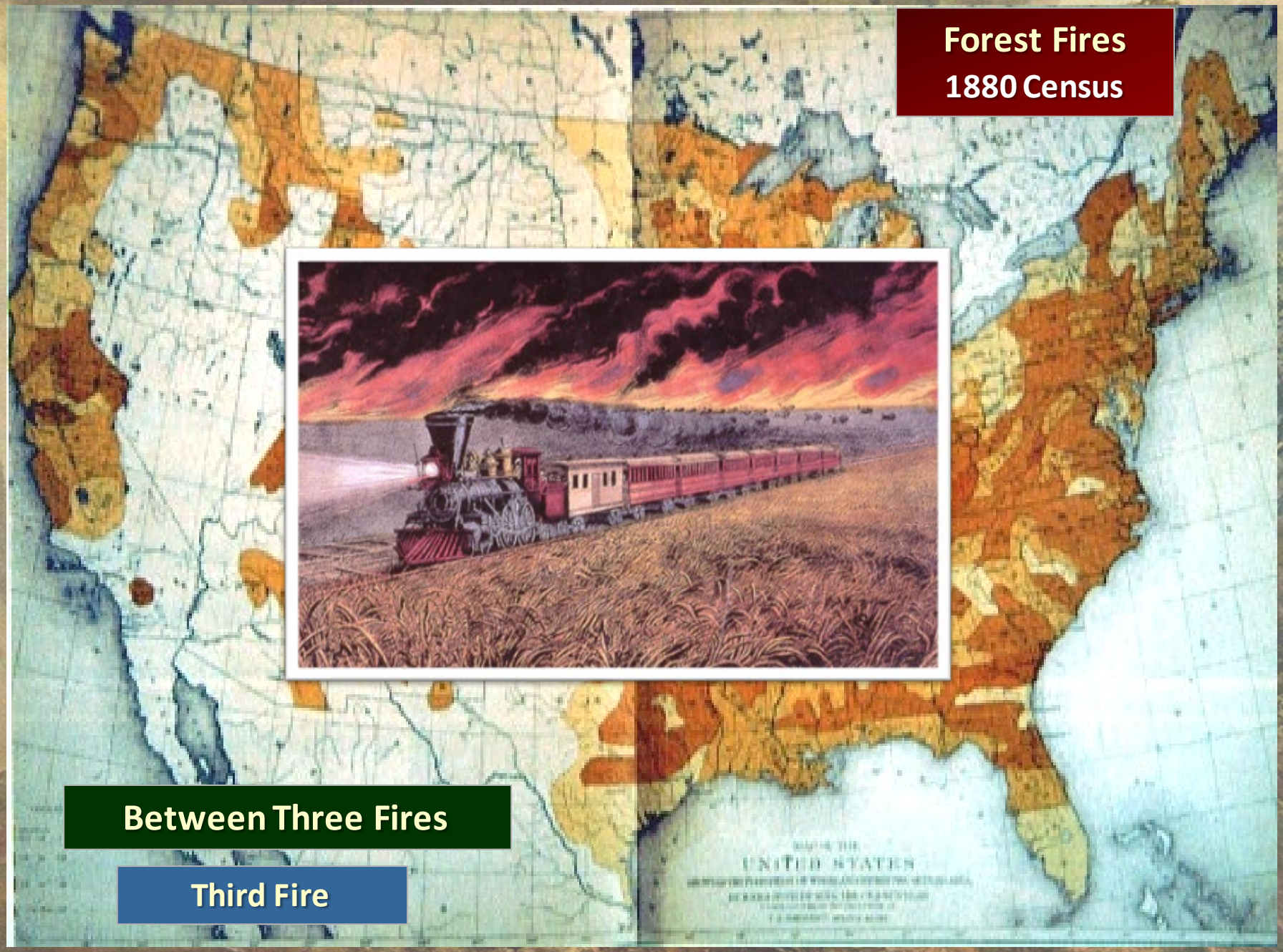
changed how Western science understood fire

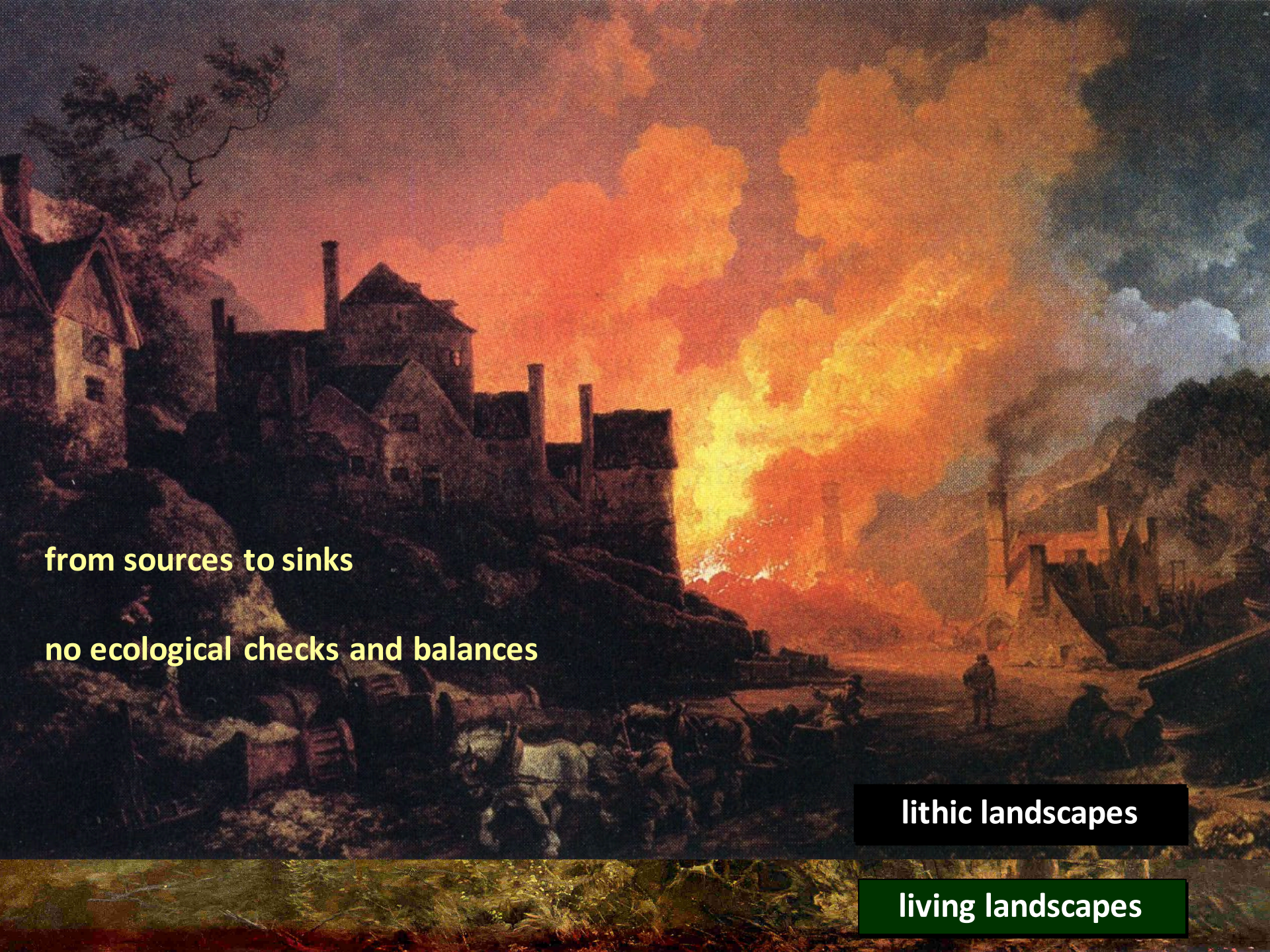
means for disseminating Western concepts and institutions



applied to
e lived on




Forest Fires
1880 Census
Between Three Fires
Third Fire
UNITED STATES


from sources to sinks
no ecological checks and balances
lithic landscapes
living landscapes

Pyric transition

DOMESTIC

Pyric transition

DOMESTIC

URBAN

Pyric transition

DOMESTIC

URBAN

AGRICULTURE

Pyric transition

DOMESTIC

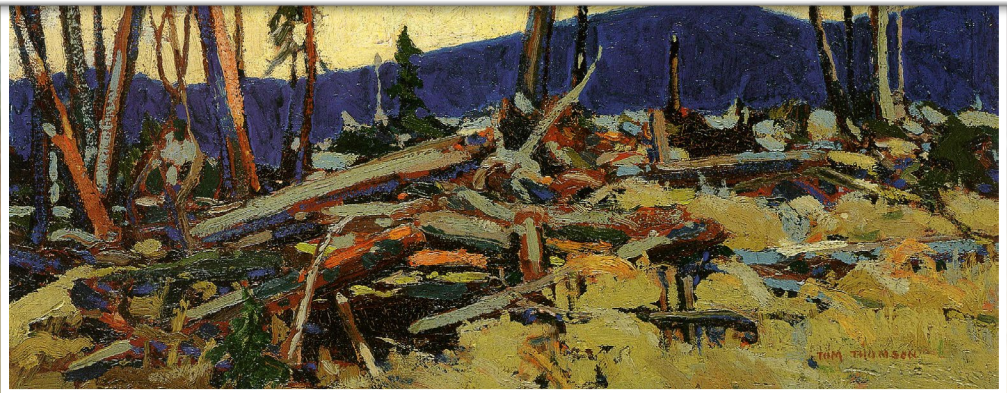
URBAN

AGRICULTUR

WILDLAND

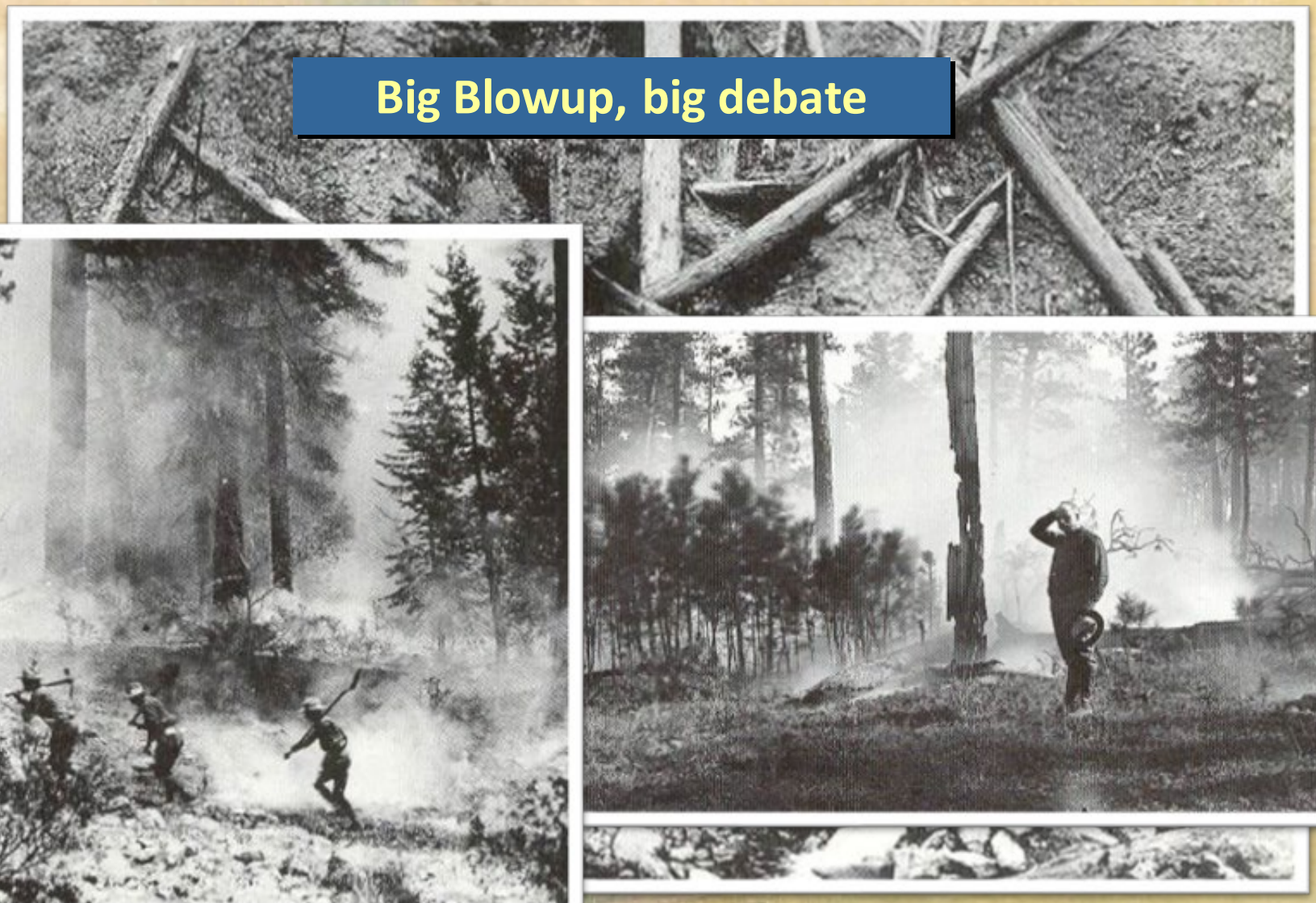
Settler societies and fire

Fire control as founding doctrine of conservation

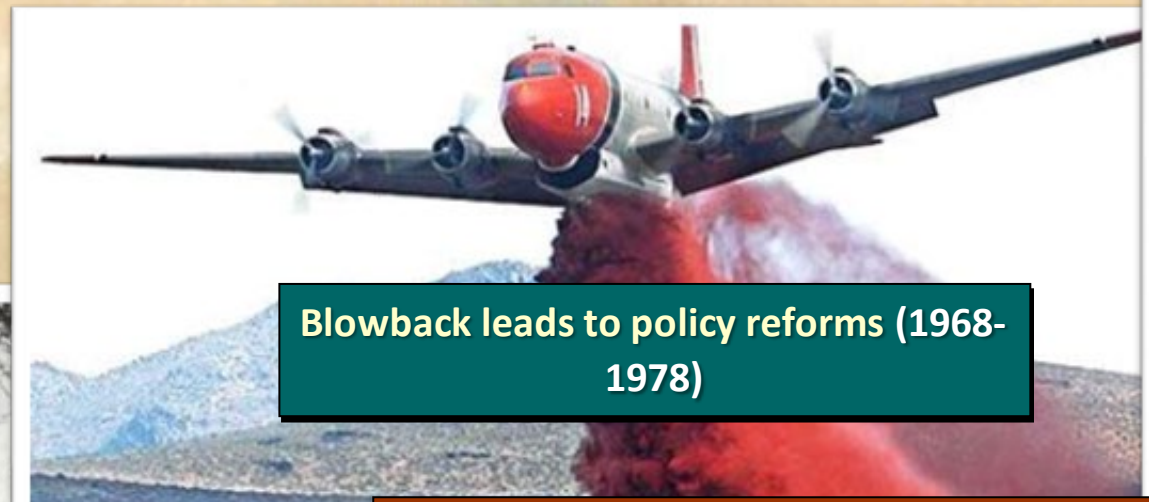


America's narrative

Big Blowup, big debate



America's narrative



Blowback leads to policy reforms (1968-1978)

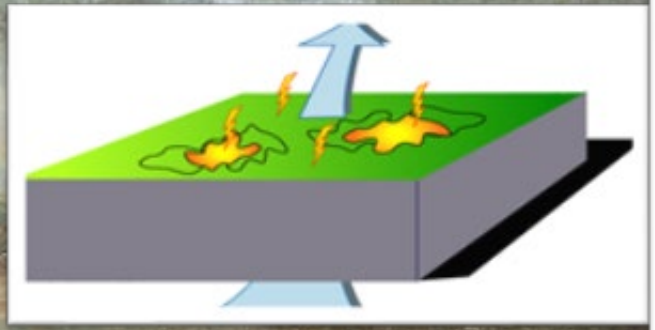
all this happens without climate change, which now acts as a performance enhancer and globalizer

counterfire from industrial combustion

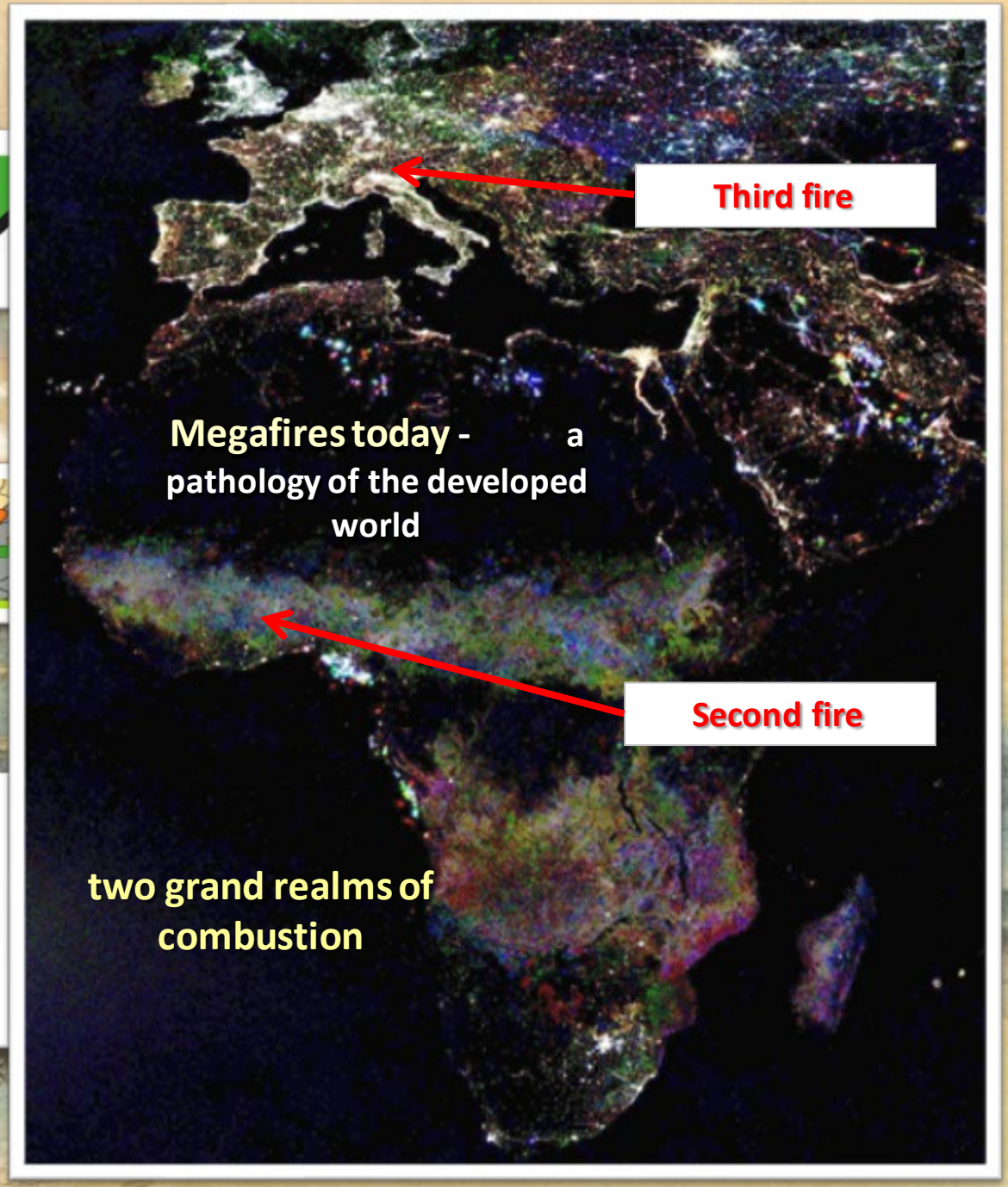
Fire's Big History

First Fire

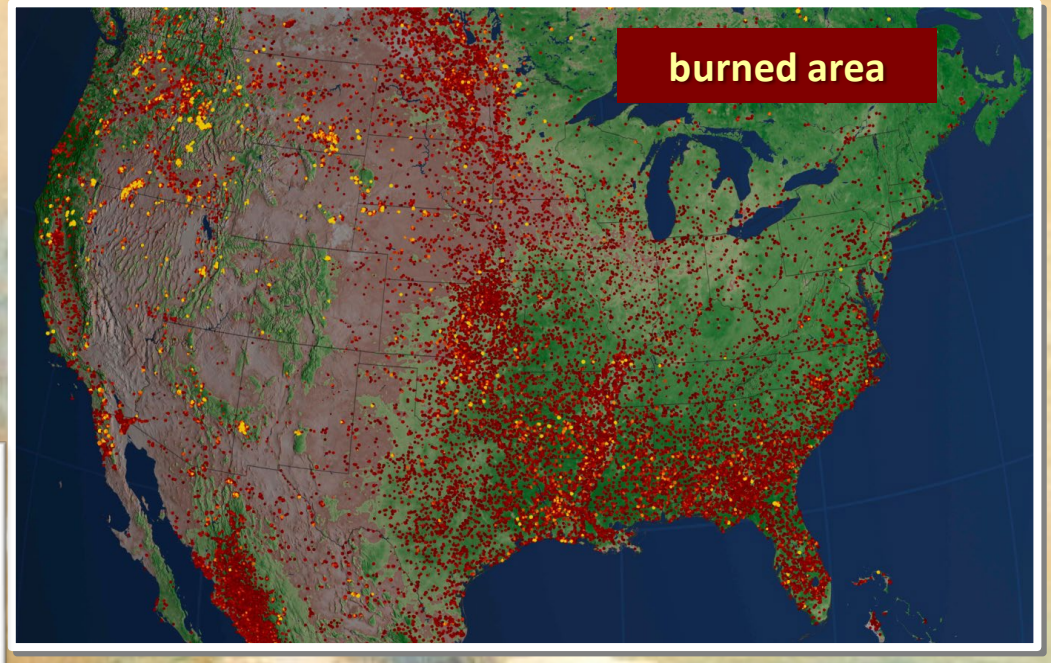
Second Fire



Third Fire

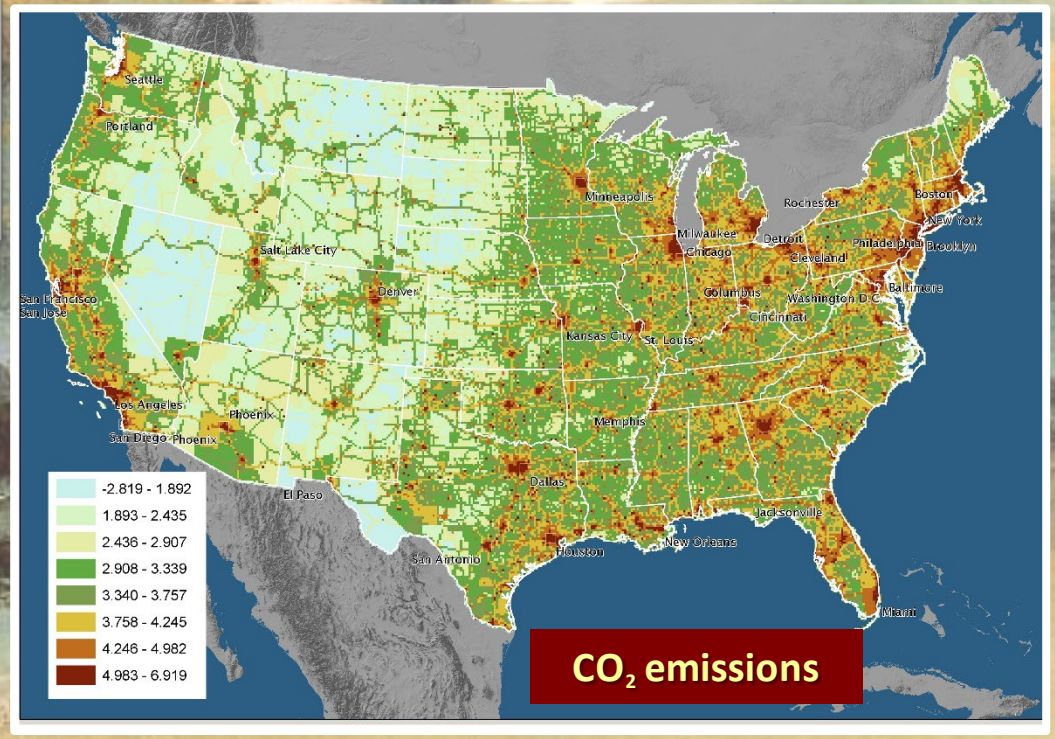


Fire's new geography



Fire map living landscapes

Fire map lithic landscapes

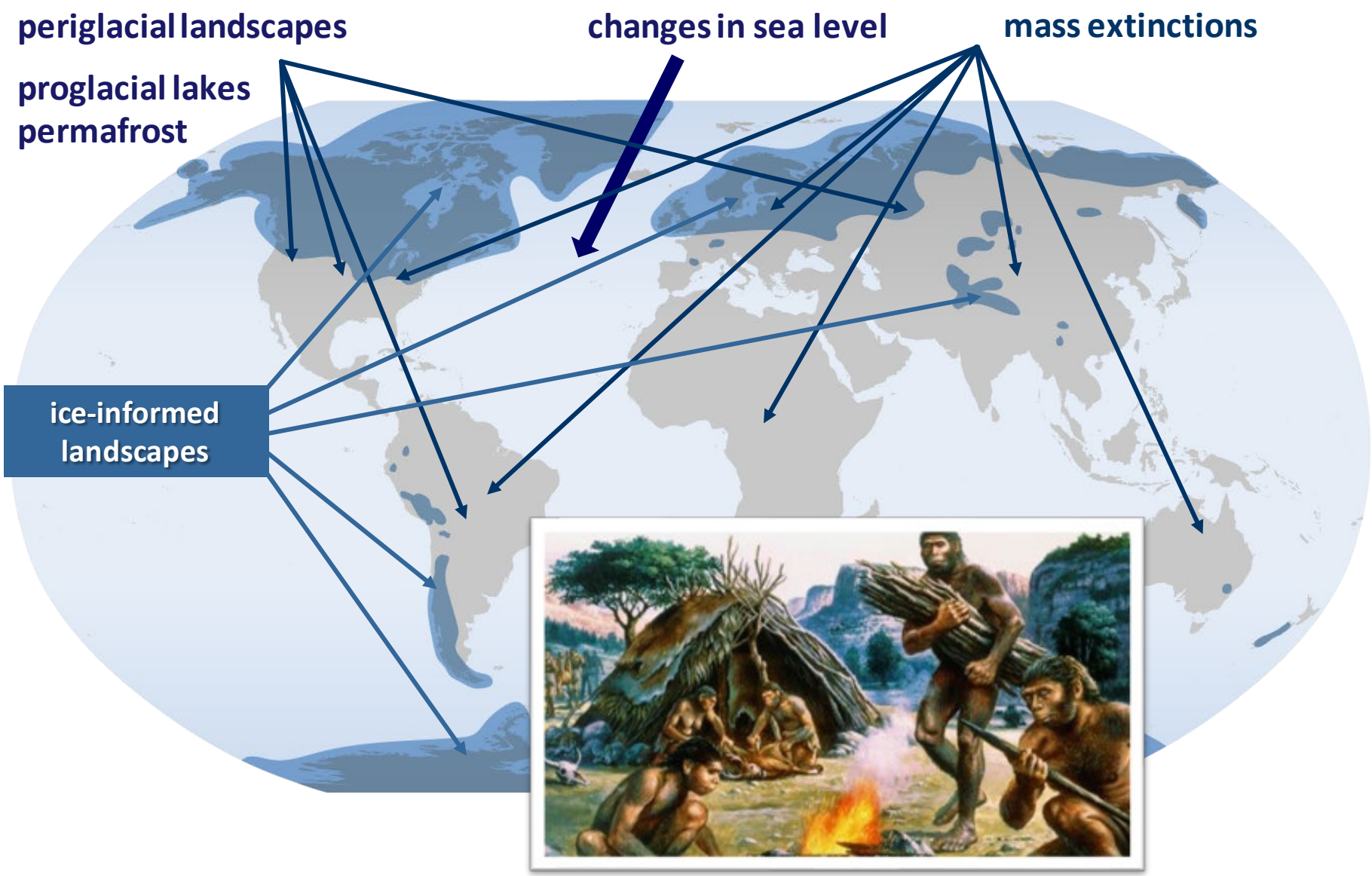


the Dark Side

North Korea

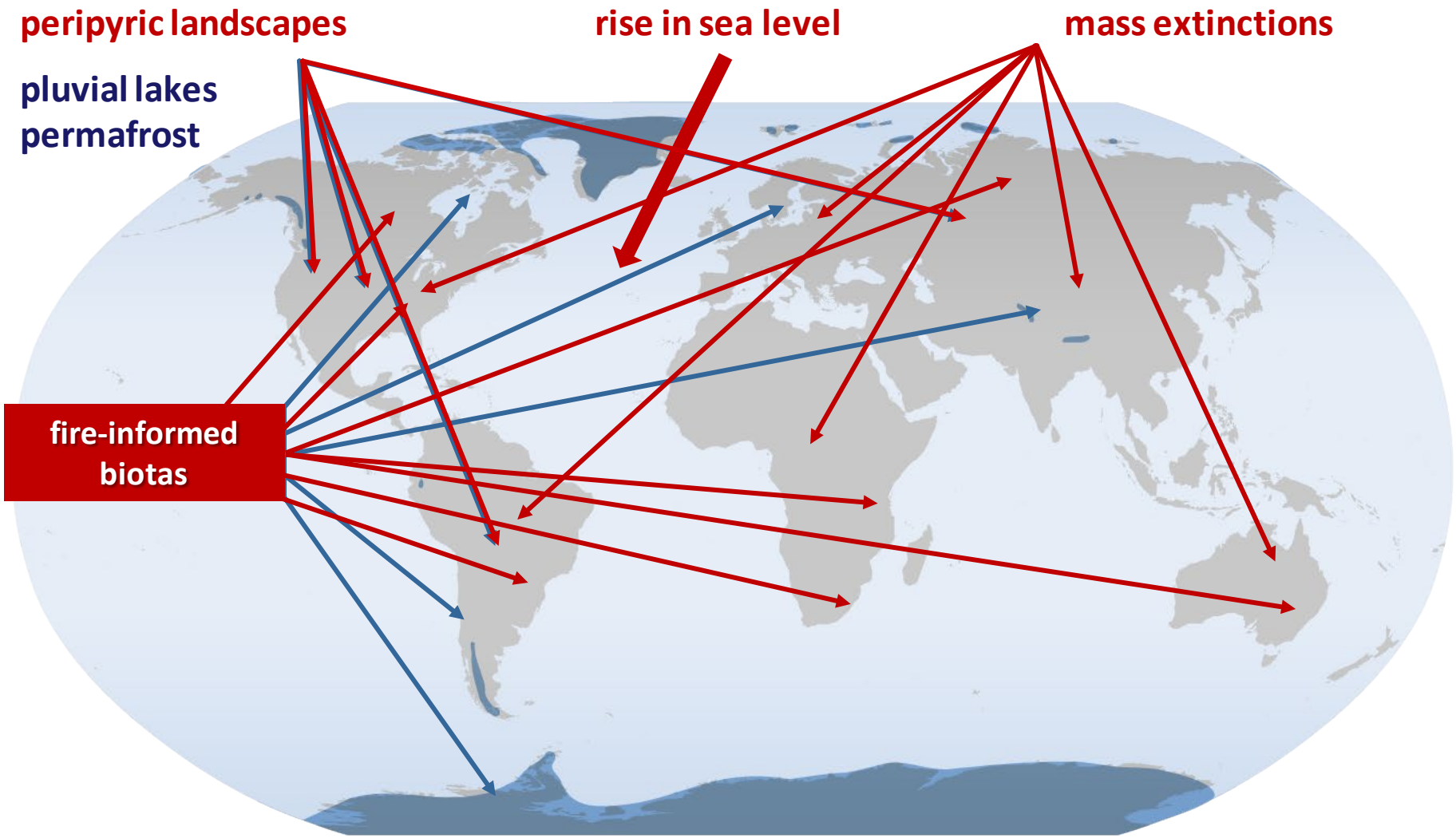
The Pleistocene

Climate change paced by Milankovitch cycles



The Pyrocene

Climate change from anthropogenic fire



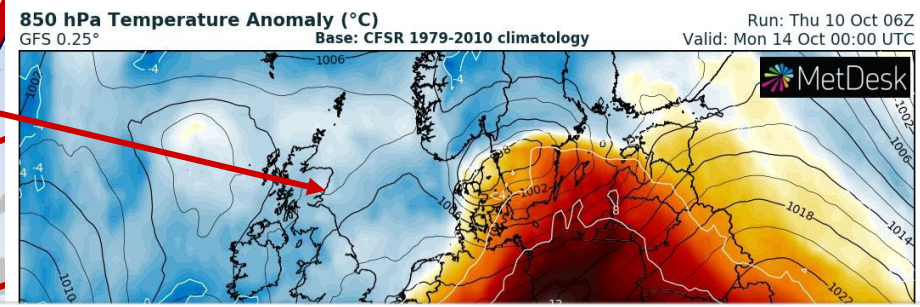
The Pyrocene

Climate change from anthropogenic fire

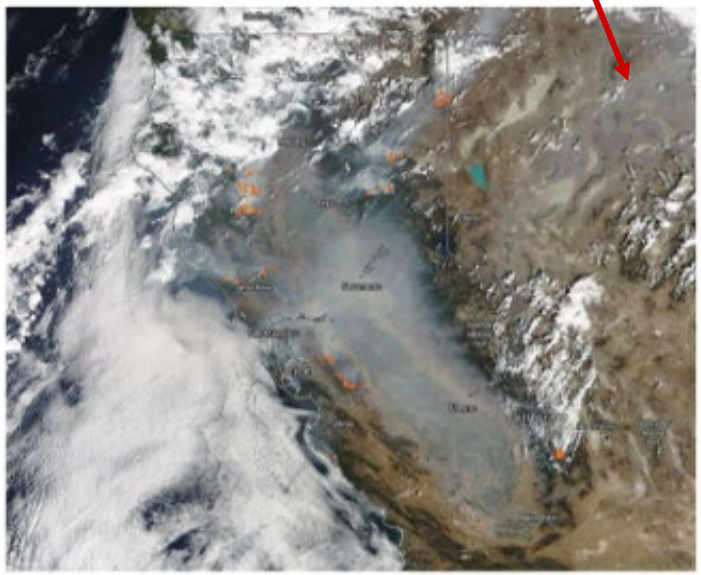
peripyric landscapes

rise in sea level

mass extinctions



fire-informed biotas

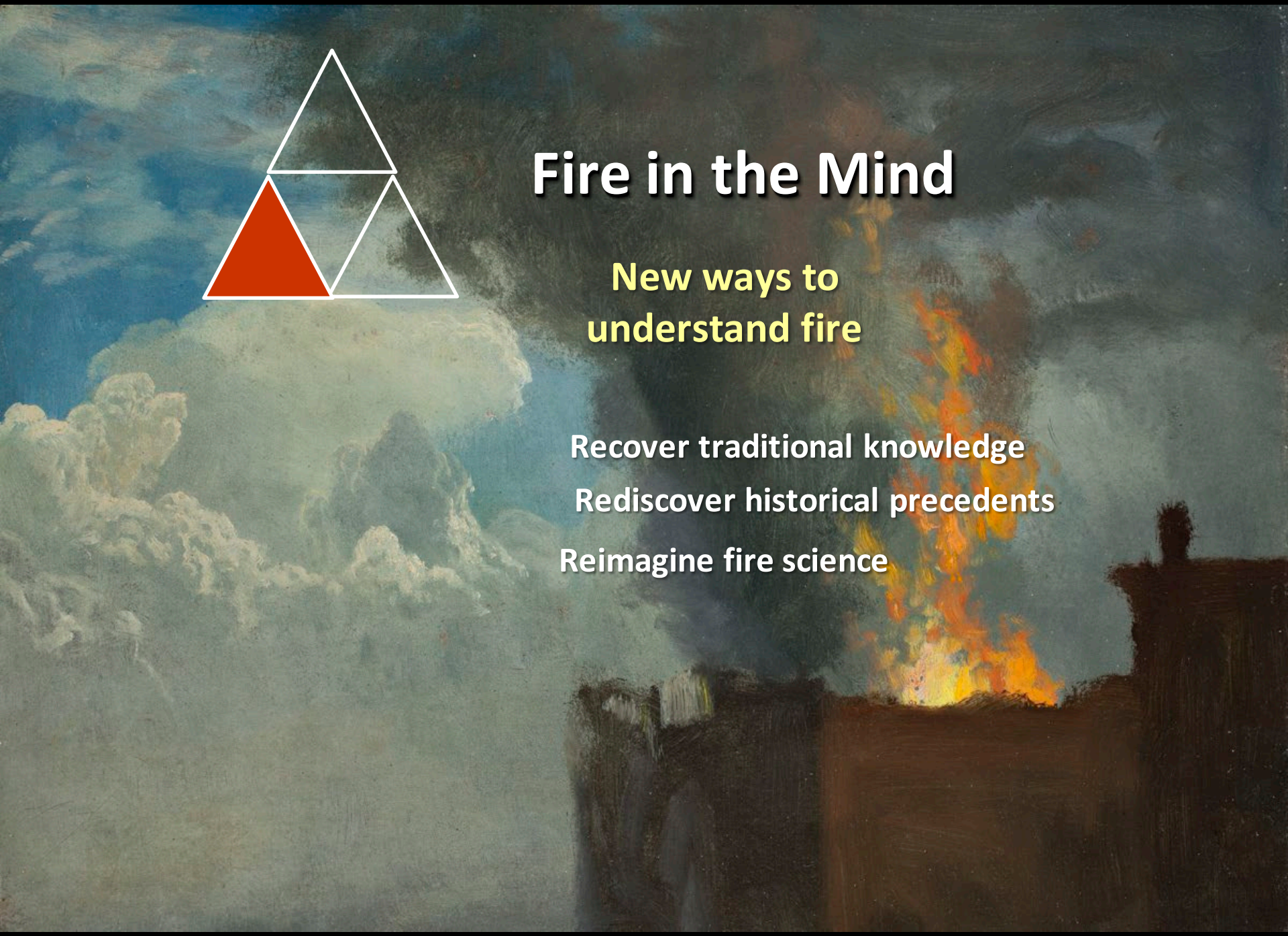


The Pyrocene

now showing at a
planet near you

Climate history is becoming a subnarrative of fire history.

It’s about living with a fire age



Fire in the Mind

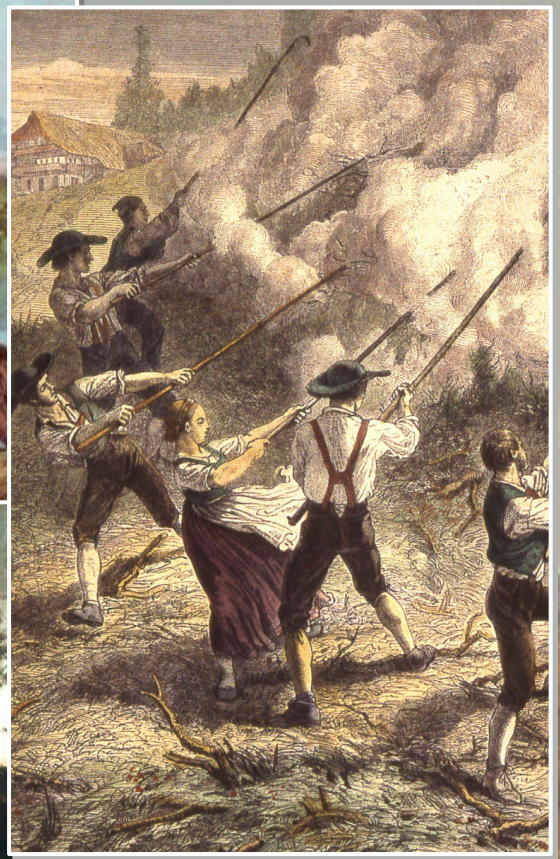
New ways to understand fire

Recover traditional knowledge

Rediscover historical precedents

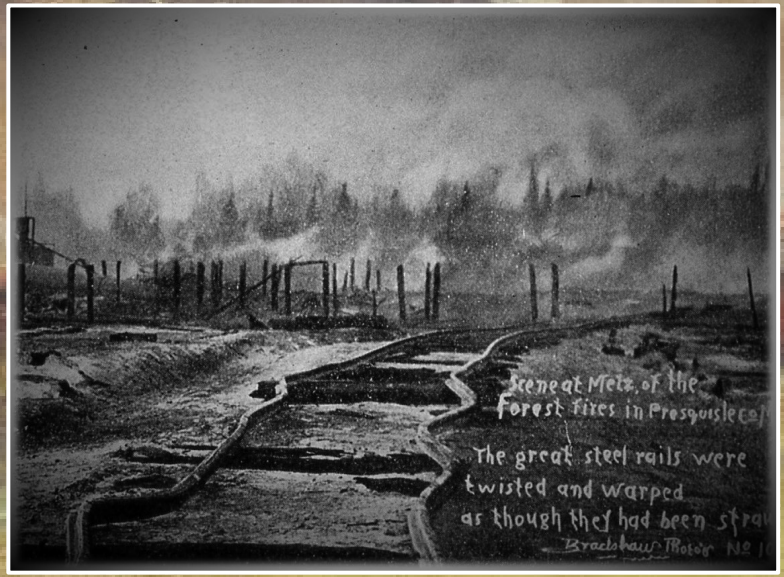
Reimagine fire science

Recover traditional knowledge



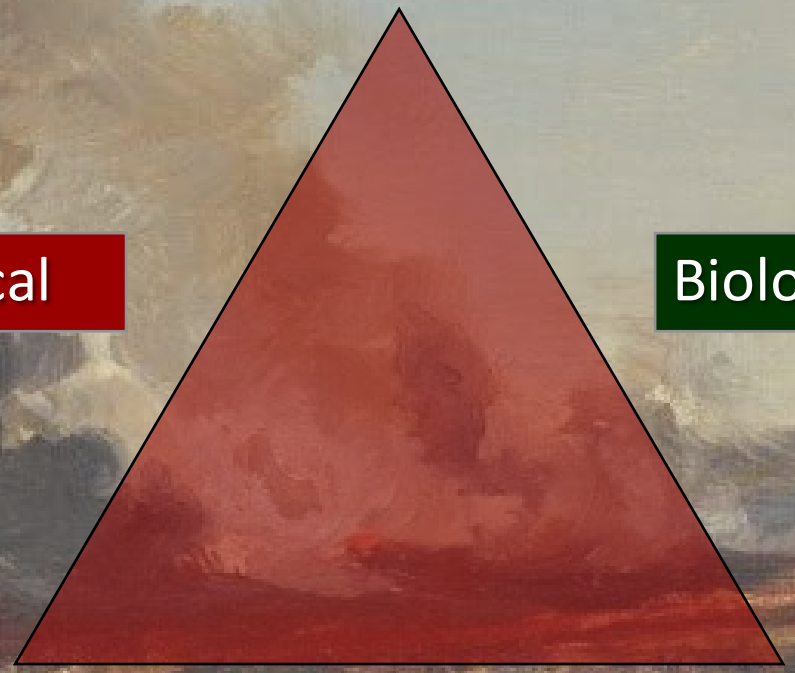
Not just living with fire, but fire as part of living

Rediscover historical precedents



Reimagine fire science

"V Thomas Kuhn, meet Heracleitos t



Reimagine fire science

Fireshed

Physical

Control by physical measures

Fundamentals a chemical reaction shaped by physical setting

Reimagine fire science

Fire habitat

Control by biological measures

Biological

Fundamentals
biologically constructed, integrated by biota

Reimagine fire science

Fire landscape

Fundamentals
culturally constructed, integrated by institutions, ideas, and conventions

Control by cultural measures

Cultural

Reimagine fire science

Megafires – interpreting their meaning

Reimagine fire science

Mega-explanations

Physical int
(ana

Biolog

otas (analogous to

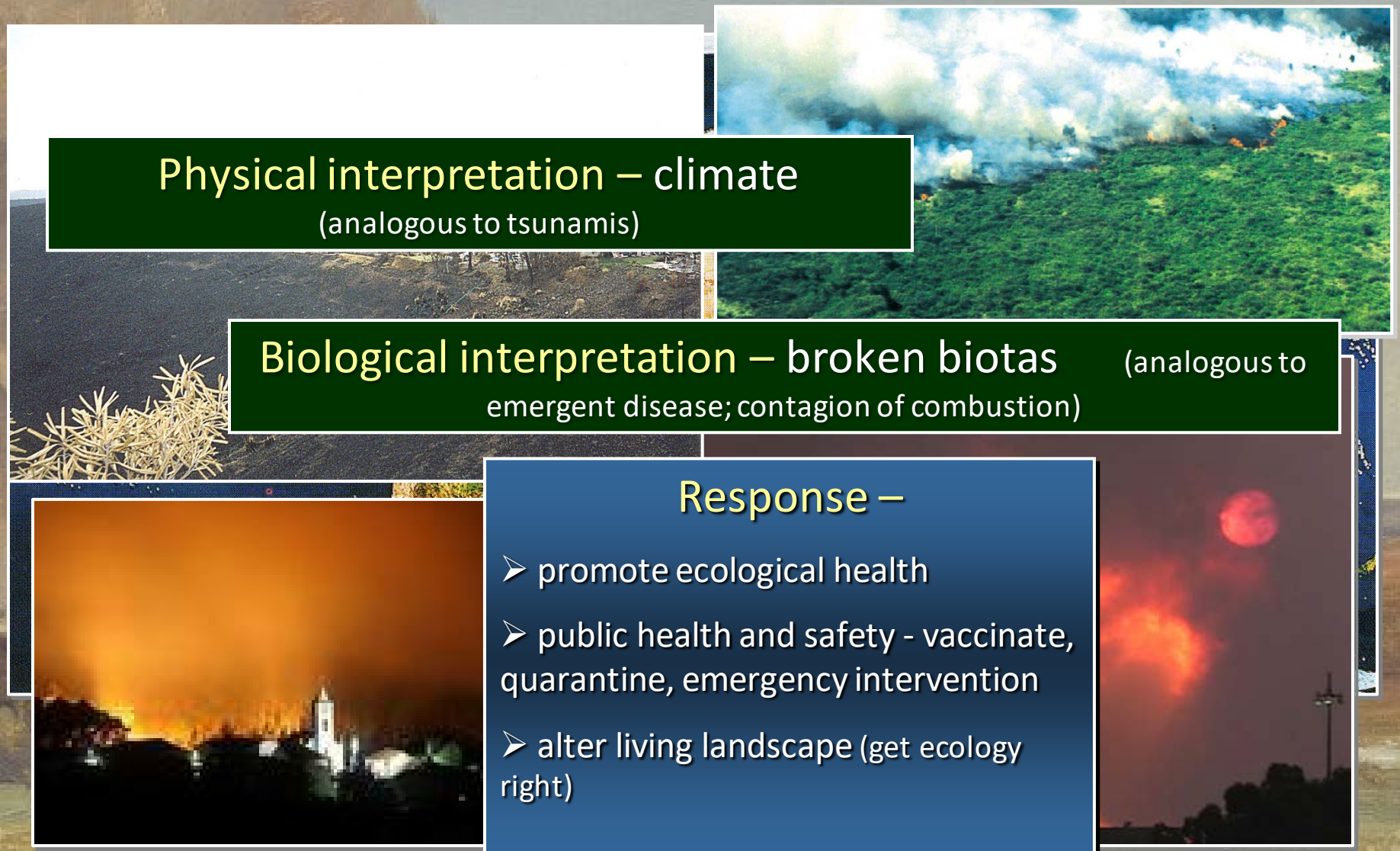
Response –

- land use regulations and building codes
- reform institutions and policies
- redefine ideas and research
- treat as civil unrest or novel technology

Cultural interpretation – changes in land use and institutions (analogous to a riot or revolution)

Reimagine fire science

Mega-explanations



Physical interpretation – climate
(analogous to tsunamis)

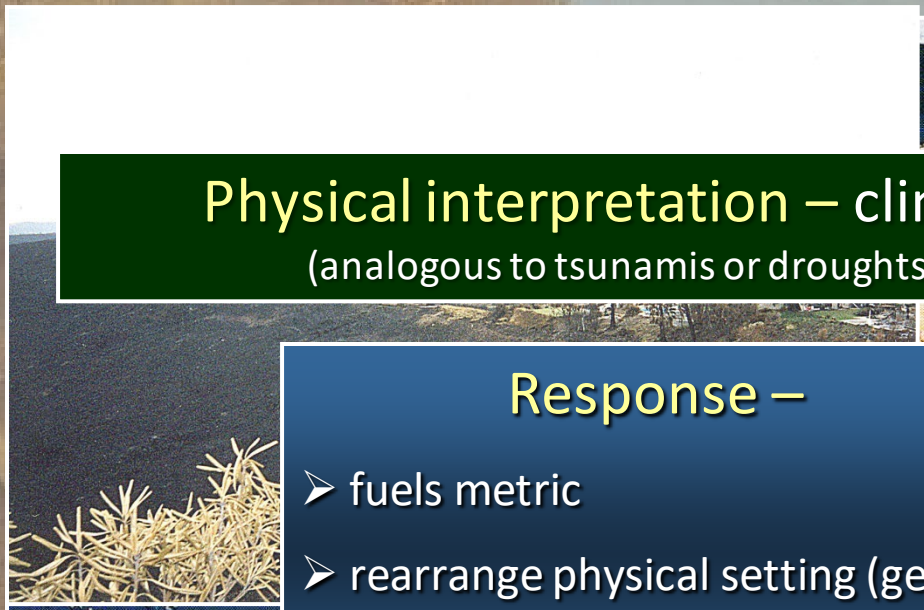
Biological interpretation – broken biotas (analogous to emergent disease; contagion of combustion)

Response –

- promote ecological health
- public health and safety - vaccinate, quarantine, emergency intervention
- alter living landscape (get ecology right)

Reimagine fire science

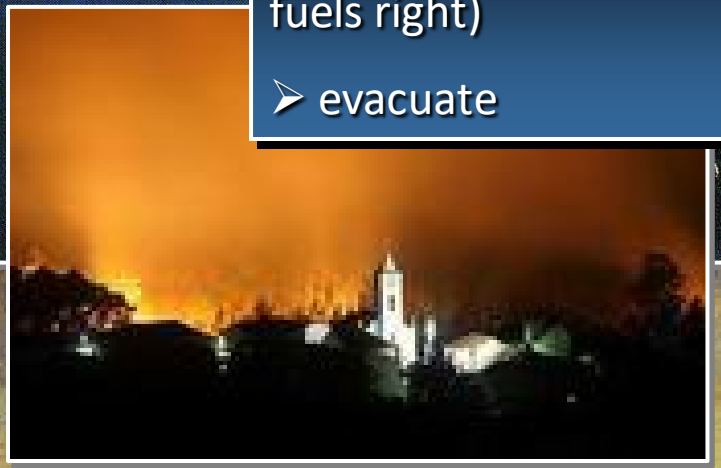
Mega-explanations



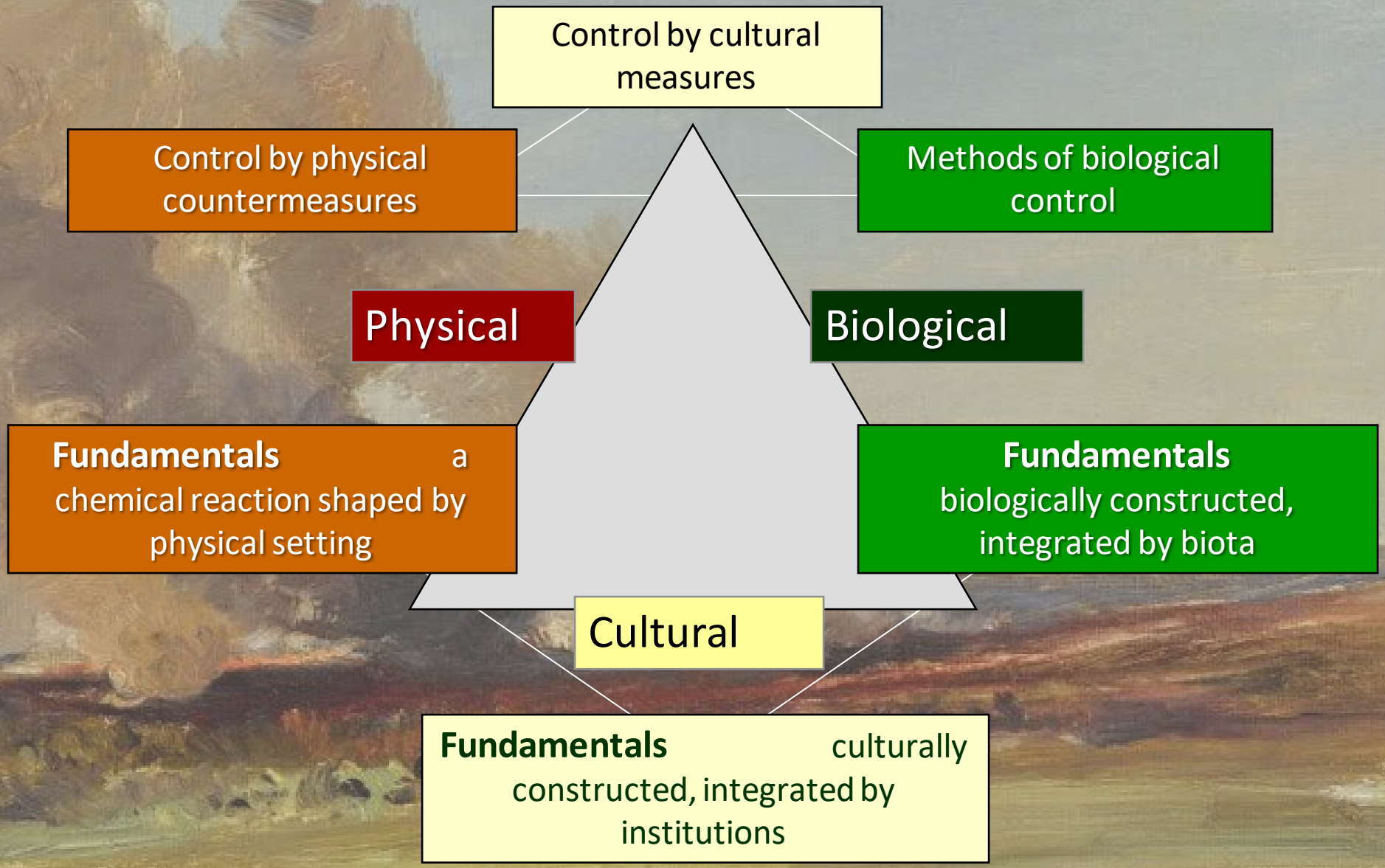
Physical interpretation – climate
(analogous to tsunamis or droughts)

Response –

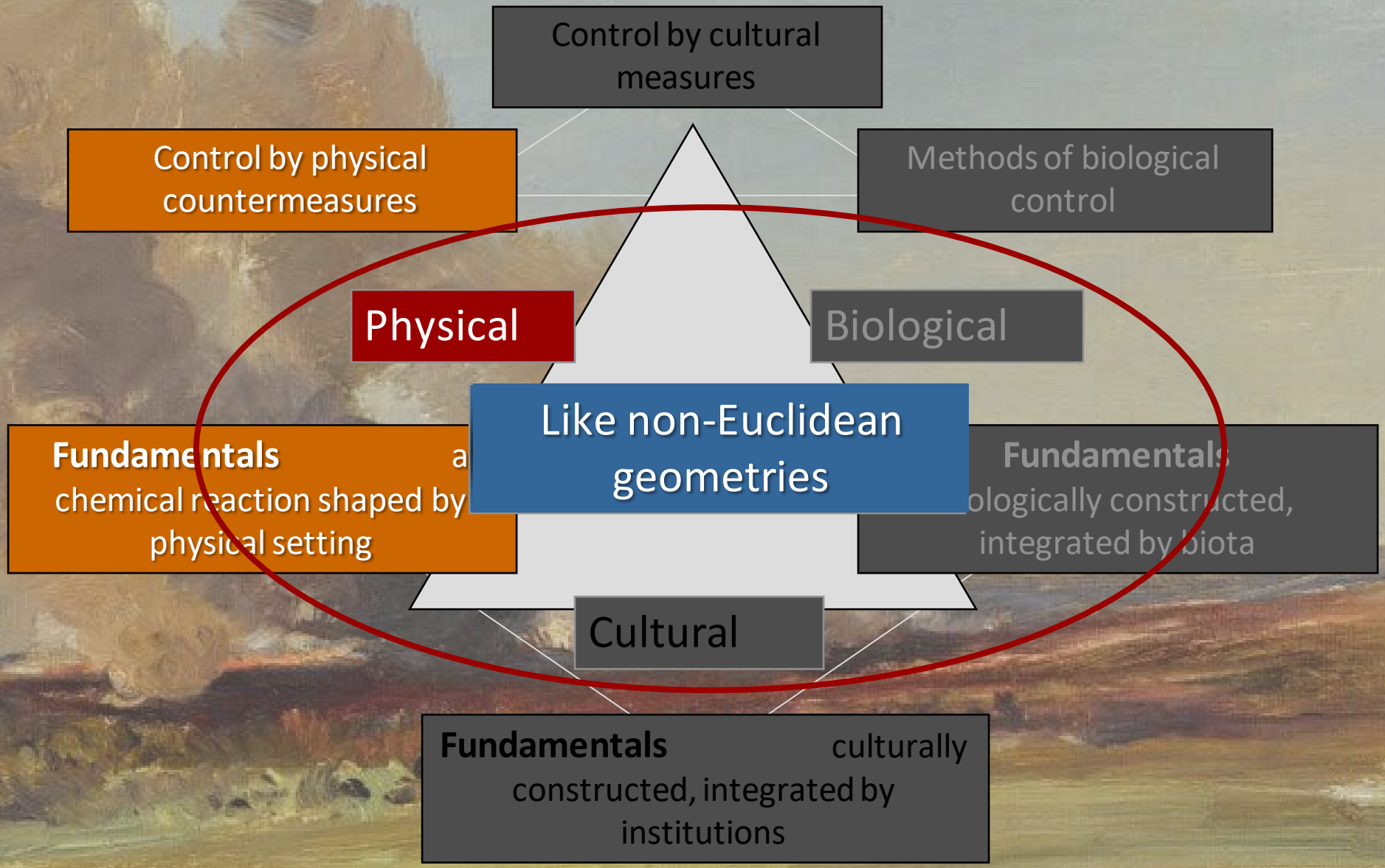
- fuels metric
- rearrange physical setting (get fuels right)
- evacuate



Reimagine fire science



Reimagine fire science



Fire in the Future

Defining the problem

Defining the good, the bad, and the ugly

Too much bad fire

Contrast to Europe

Defining the good, the bad, and the ugly

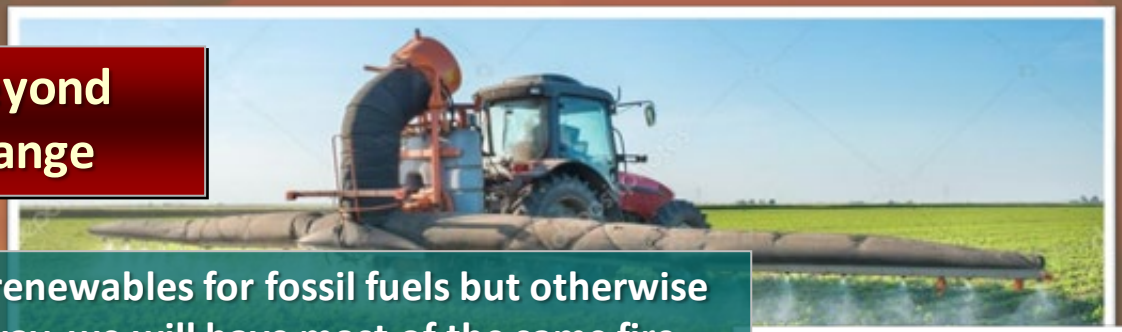
Too much bad fire, T**oo little good fire**

Build (and burn) back better

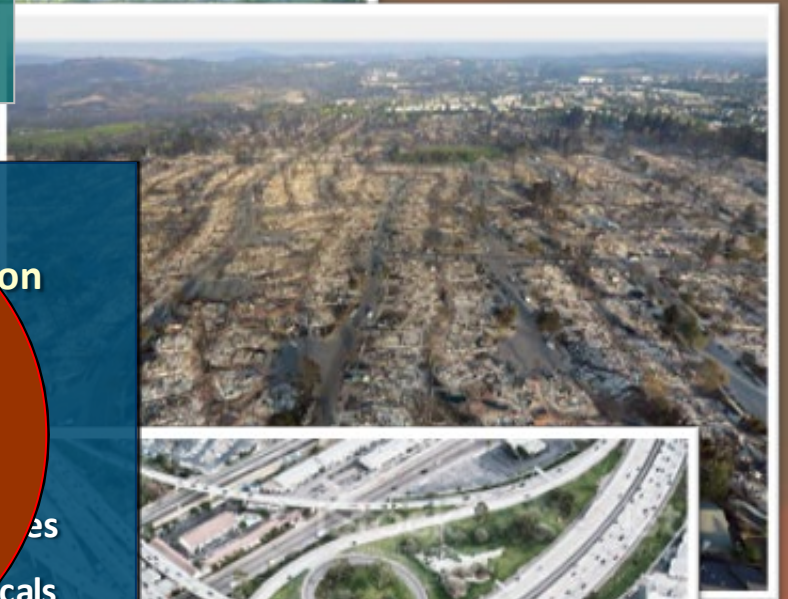
Defining the good, the bad, and the ugly

o
ch

Defining beyond climate change



If we substitute renewables for fossil fuels but otherwise live the same way, we will have most of the same fire problems we have now.



Third Fire's Nature

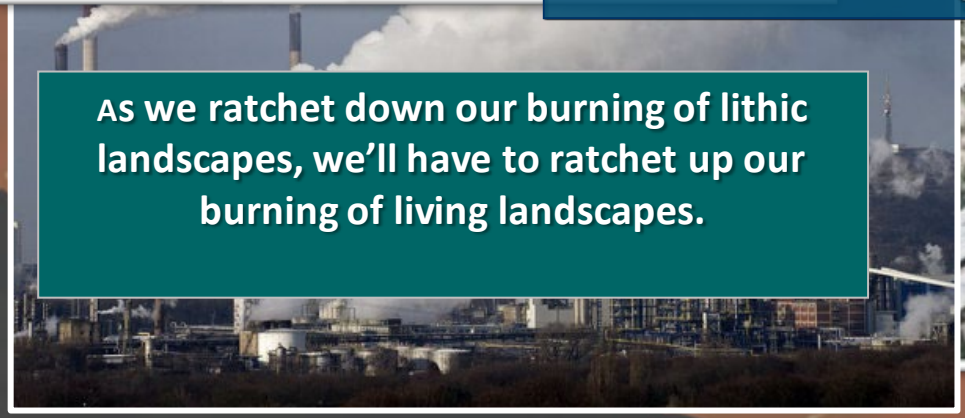
fos ion

ex es

➢ pl icals

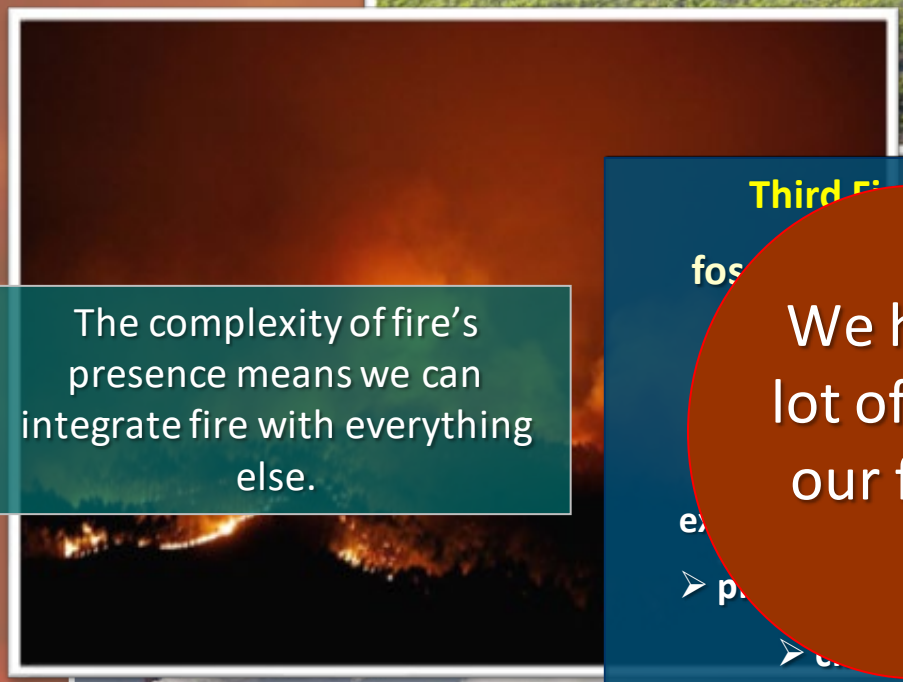
➢ cli ange

Fire integrates it all

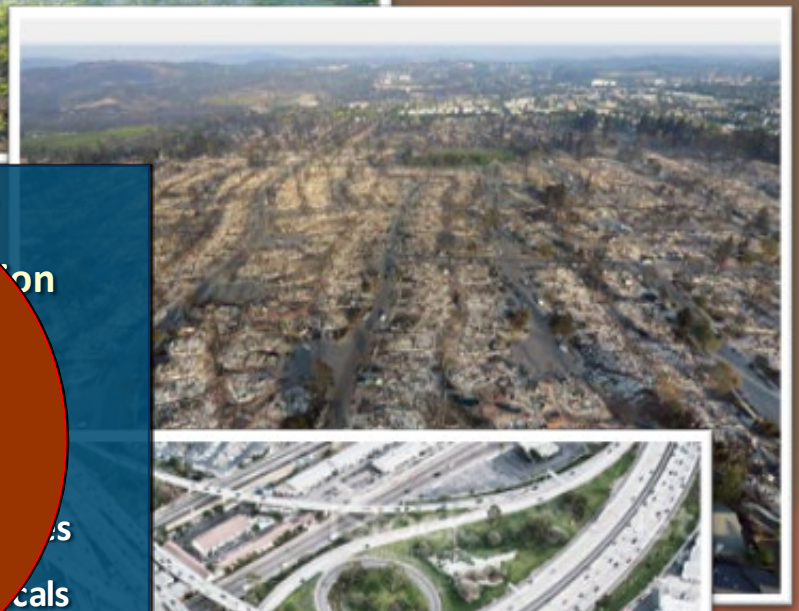


As we ratchet down our burning of lithic landscapes, we'll have to ratchet up our burning of living landscapes.

Defining beyond climate change



The complexity of fire's presence means we can integrate fire with everything else.



Third Fi Nature

fos on

ex s

➢ p cals

➢ ge

We have a lot of fire in our future

From passing between two fires to passing between three

"…they shall go out from one fire, and another fire shall devour them." Ezekiel 15:7

Good fire made us. Bad fire may break us.

Black Thursday (1851)

Mallacoota (2019-20)