

Transition : piège à con ?

Jean-Baptiste Fressoz, CNRS-EHESS

In China, the true cost of Britain's clean, green wind power experiment: Pollution on a disastrous scale

By SIMON PARRY in China and ED DOUGLAS in Scotland

CREATED: 19:32 BST, 26 January 2011

[View comments](#)

This toxic lake poisons Chinese farmers, their children and their land. It is what's left behind after making the magnets for Britain's turbines... and, as a special Live investigation reveals, is multitude of environmental sins committed in the name of green energy.



Wind farm clue to horrific 'corkscrew' seal deaths

By TIM BUDLER
UPDATED: 13:21 BST, 23 August 2010

Experts probing the so-called 'corkscrew deaths' of seals on Britain's East Coast believe the building of a huge offshore wind farm could be to blame.

The corpses of 50 seals with a clean 'corkscrew' cut running from head to tail have been washed up over the past 18 months.

A dozen of the mutilated seals were discovered off St Andrews, Fife, and in the Firth of Forth.



Link: Scientists believe boats associated with the building of the Sheringham Shoal wind farm may explain the death of 50 seals, whose bodies have been washed up on the Norfolk Coast

Rare bird last seen in Britain 22 years ago reappears - only to be killed by wind turbine in front of a horrified crowd of birdwatchers

- The white-throated needletail is usually only seen in Asia and Australasia
- Forty birdwatchers dashed to the Hebrides to catch a glimpse of this one
- But as they watched it was knocked 'stone dead' after impact with turbine

By WILL ROBINSON
PUBLISHED: 22:03 BST, 27 June 2013 | UPDATED: 19:30 BST, 28 June 2013

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There had been only eight recorded sightings of the white-throated needletail in the UK since 1846. So when one popped up again on British shores this week, watchers were understandably excited.

A group of 40 enthusiasts dashed to the Hebrides to catch a glimpse of the brown, black and blue bird, which breeds in Asia and winters in Australasia.

But instead of being treated to a wildlife spectacle they were left with a horror show when it flew into a wind turbine and was killed.

John Merchant, 62, who had made the trip all the way from Norfolk, said: 'We were absolutely over the moon to see the bird. We watched it for nearly two



Sorry ends: The needletail pictured after its fatal collision with a turbine



351 New comments

Wind farms can actually INCREASE climate change by raising temperatures and causing downpours, warn academics

Temperatures can fall by up to 4C downwind of farms
 Tory MPs write to PM demanding dramatic subsidy cuts

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Are wind farms saving or killing us? A provocative investigation claims thousands of people are falling sick because they live near them

By JAMES DELINGPOLL
PUBLISHED: 23:00 BST, 4 September 2012 | UPDATED: 16:00 BST, 9 October 2012

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The symptoms they claim to have suffered may vary - including dizziness, increased blood pressure and depression - but the theme remains the same

The wind farms 'that ADD to carbon emissions': Sites built on peat bogs could increase greenhouse gases

- Britain's peatland holds 3.2 trillion tonnes of carbon trapped in the soil
- More than half of wind farms planned for Scotland are intended for peatland
- Researchers have devised a method to calculate the 'carbon payback' time

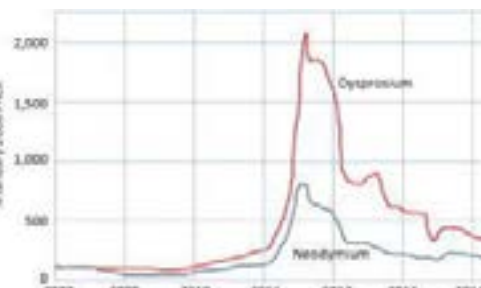
By NICK McDERMOTT FOR MAILONLINE
PUBLISHED: 17:47 BST, 26 September 2012 | UPDATED: 17:48 BST, 26 September 2012

French farmers say wind turbines and solar panels have killed hundreds of their cows

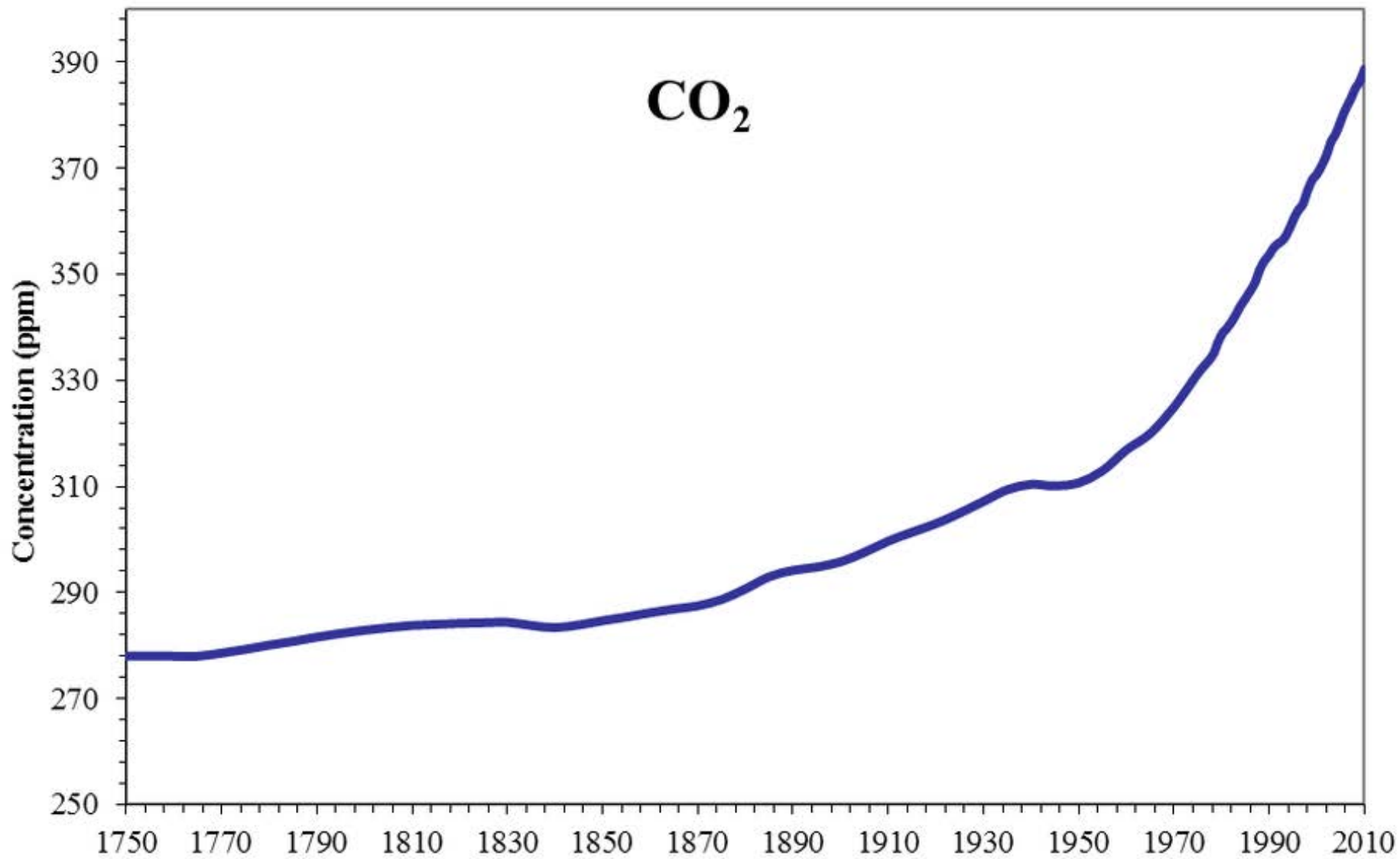
- Cows are being killed by electricity travelling through their bodies
- French farmer says hundreds of cows being killed
- Cattle in Brittany began losing weight and eventing
- Electrical current was said to be found coming through their bodies

By CHRIS DYER FOR MAILONLINE
PUBLISHED: 12:03 BST, 27 March 2019 | UPDATED: 15:38 BST, 27 March 2019

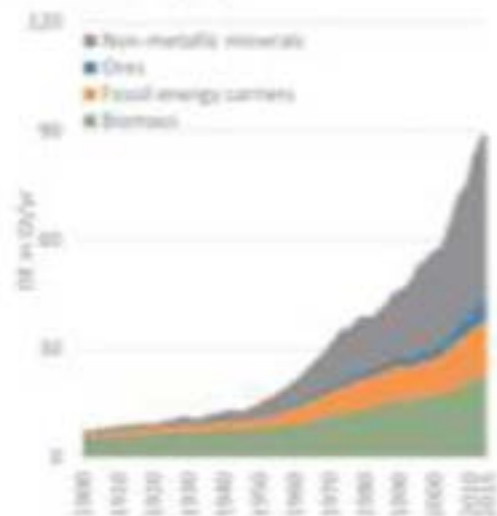
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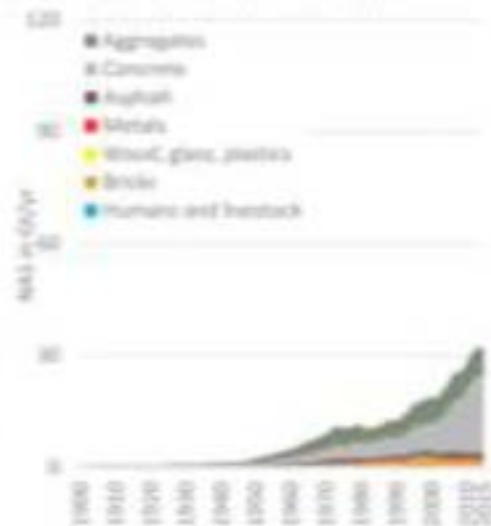




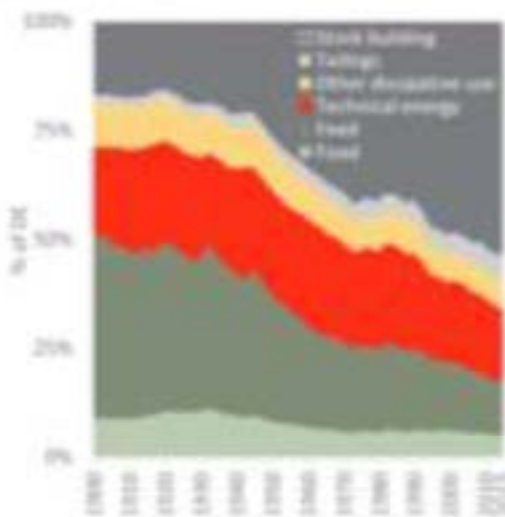
A Extraction (DE)



C Net addition to stocks (NAS)



B Material use



D Stocks

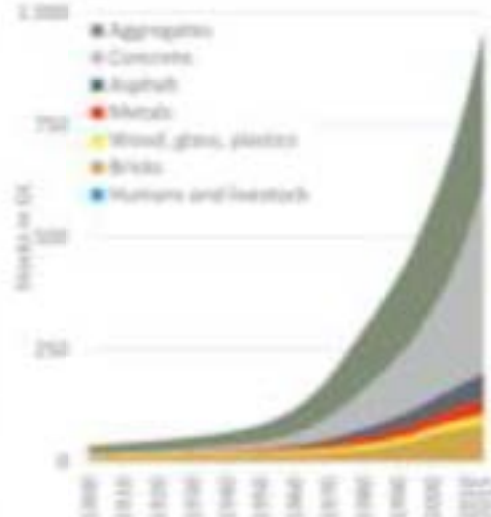
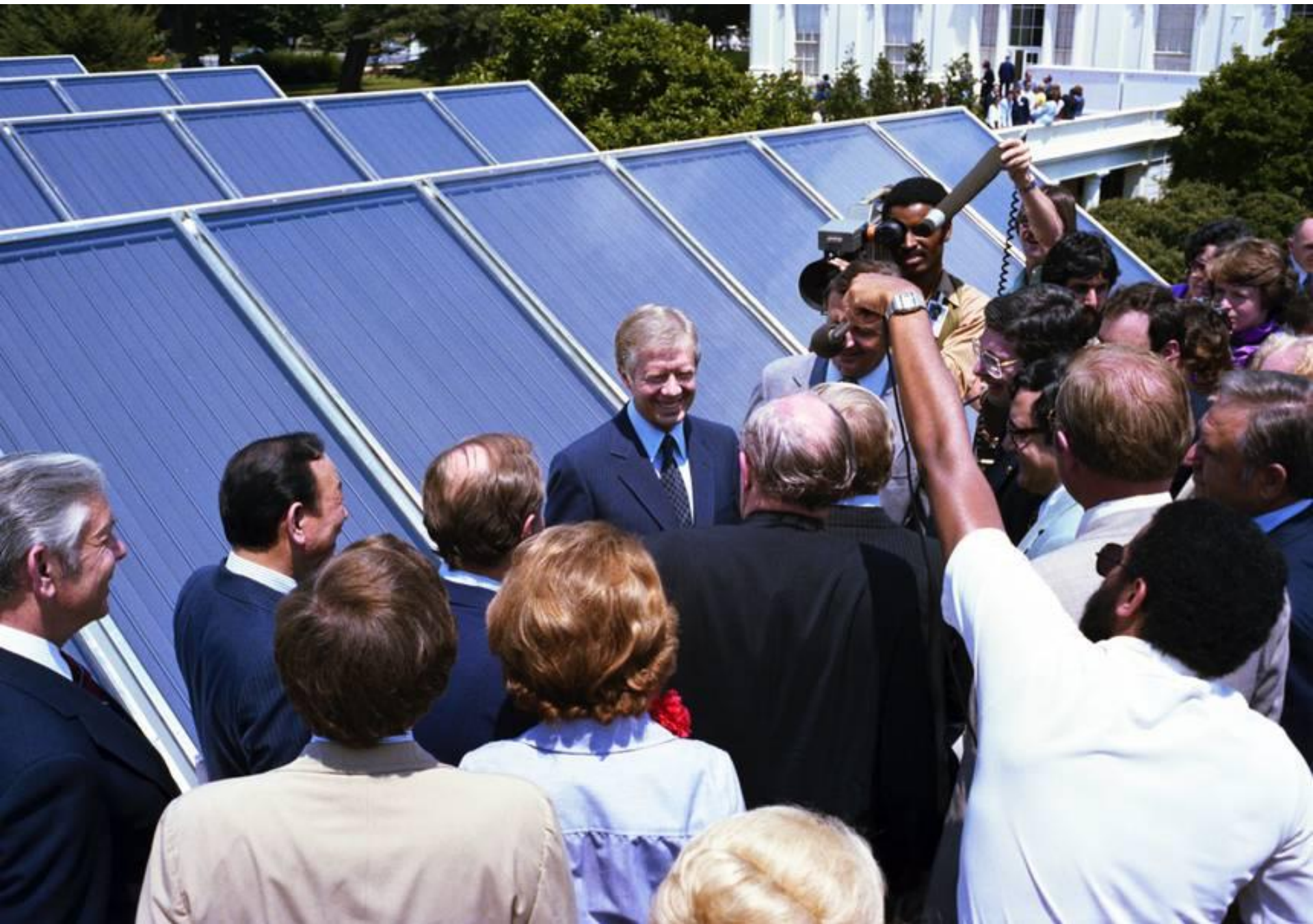
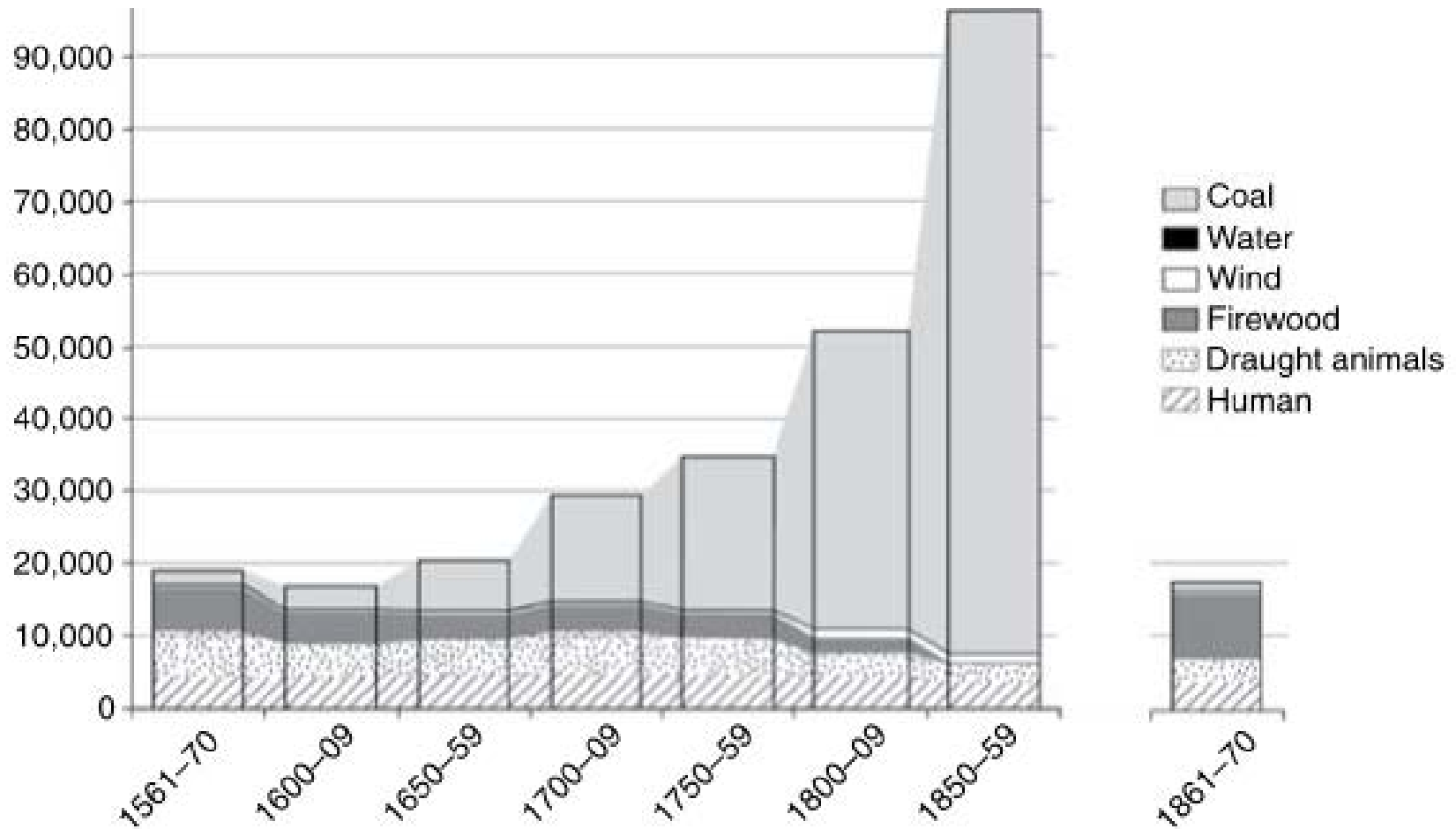


Table 4
Average yearly growth rates of material extraction (DE) of main material groups, metabolic rate (DE/cap), material intensity (DE/GDP) and domestic processed output (DPO*) for the periods 1900–1945, 1945–1973, 1973–2002, 2002–2015. GDP is international \$ at constant prices of 1990, sourced from Muddiam (2013) and the World Bank (2017).

	DE Biomass	DE Fossils	DE Ores	DE Minerals	DE Total	DE/cap	DE/GDP	DPO*
1900-1945	0.9%	1.7%	2.1%	2.1%	1.2%	0.3%	-0.9%	1.2%
1945-1973	1.6%	4.5%	5.5%	6.7%	3.7%	2.0%	-0.5%	2.7%
1973-2002	1.2%	1.4%	2.1%	2.4%	1.8%	0.1%	-1.3%	1.7%
2002-2015	2.1%	2.6%	5.7%	4.0%	3.3%	2.1%	-0.5%	3.0%



1. Une histoire d'inefficacité



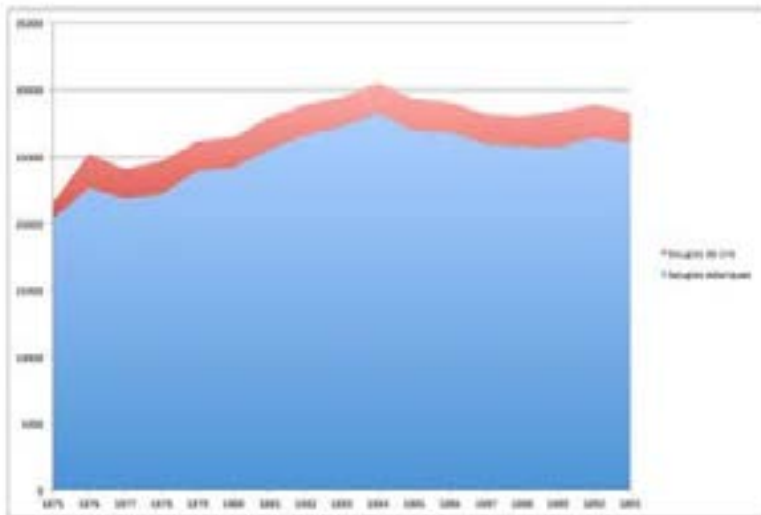


Figure 7 : Consommation française de bougies (d'après *Notice sur l'industrie stéarique et la fabrication de bougies*, 1897)

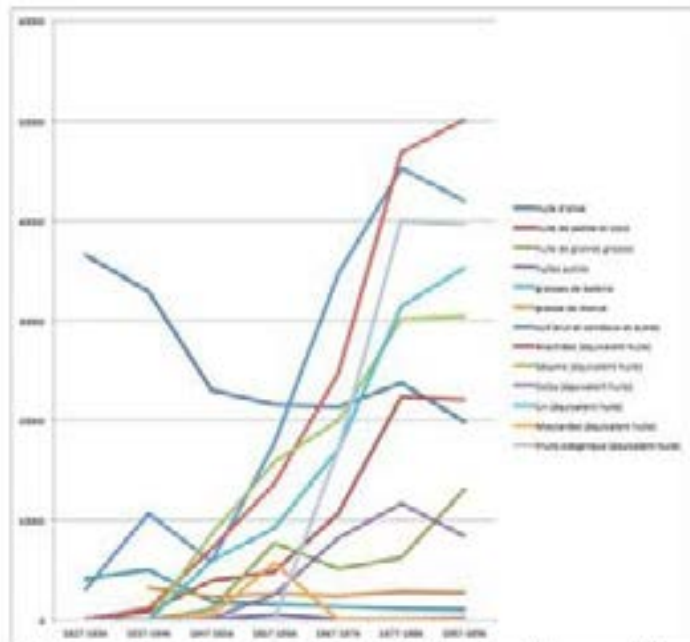
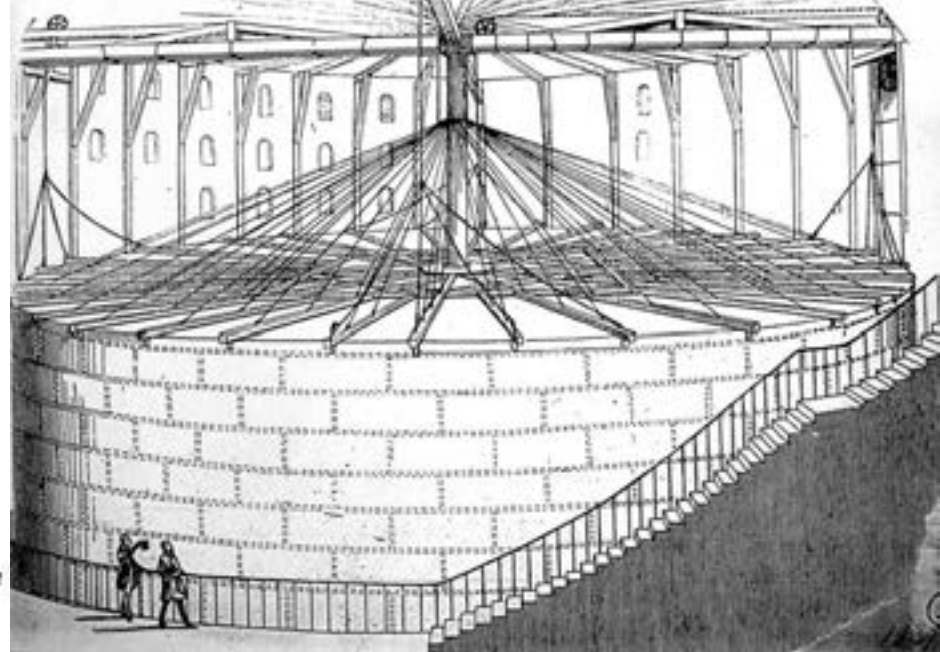


Figure 6 : Importations de matières grasses au XIXe siècle. (Source : *Tableaux décennaux du commerce de la France avec ses colonies et les puissances étrangères*, 1827-1897)

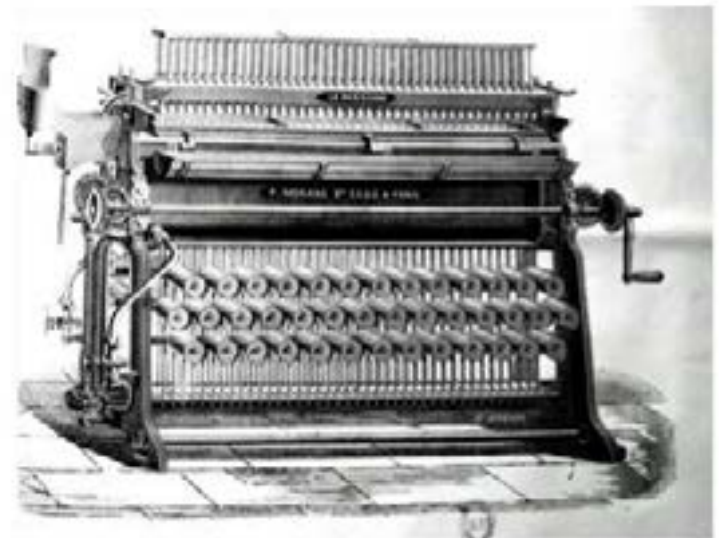


Figure 2 : Machine à fabriquer les bougies Morane, 1856.

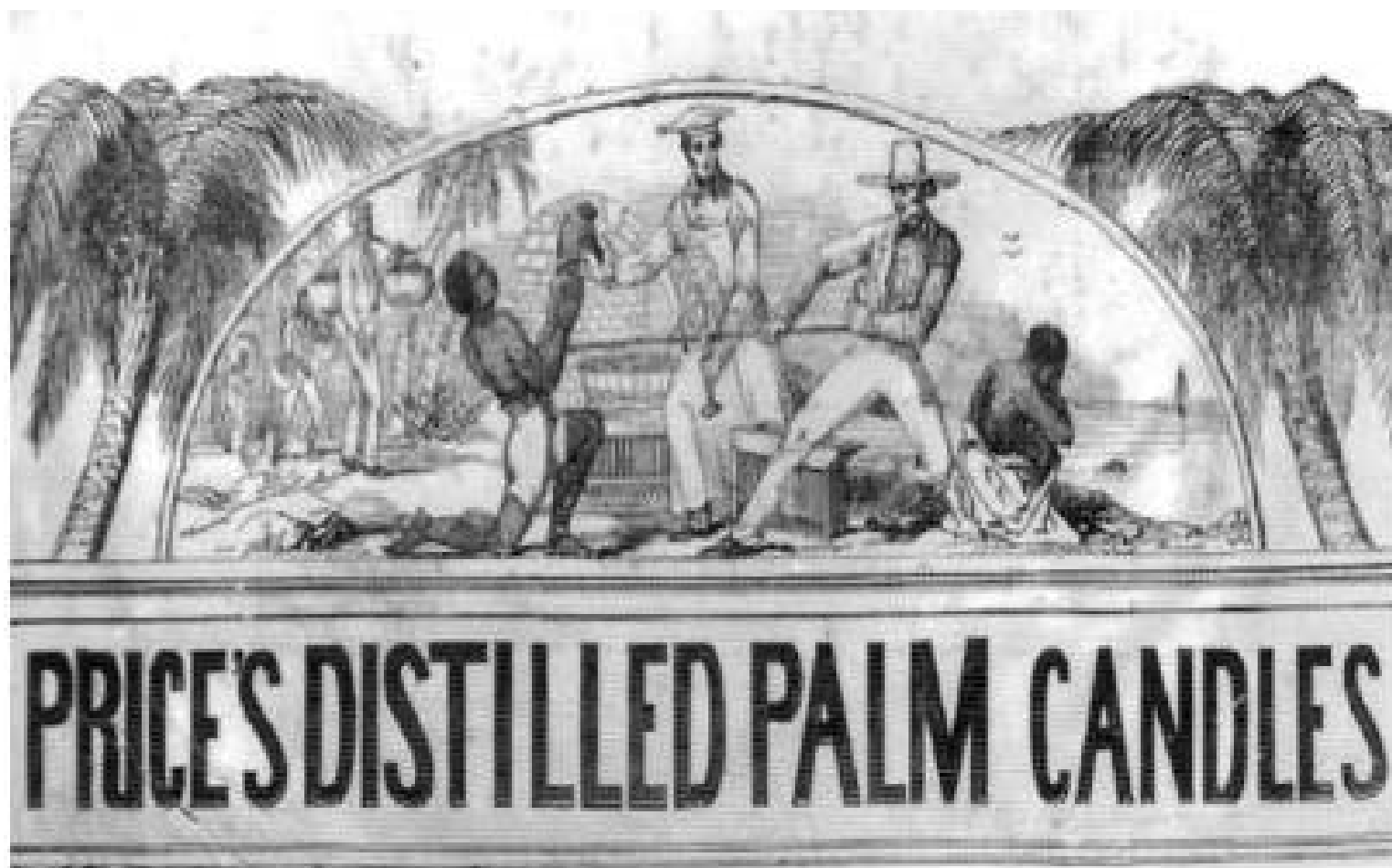


Figure 3 : publicité pour la bougie Price vers 1840 : la bougie brûle la corde de la servitude.

2. Une histoire d'alternatives



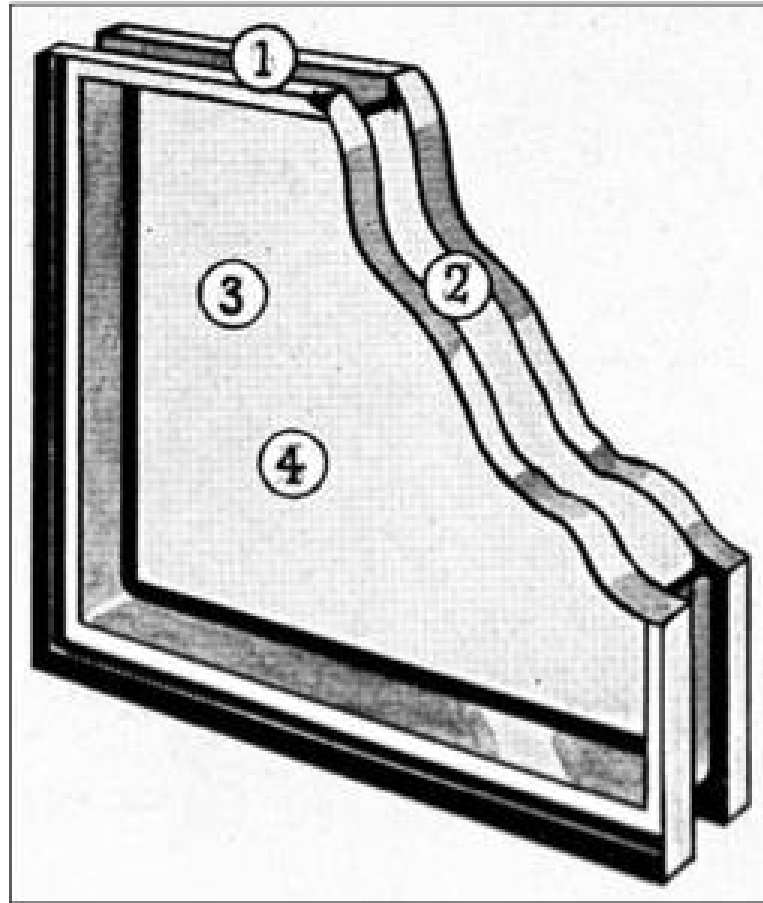
Singer Building



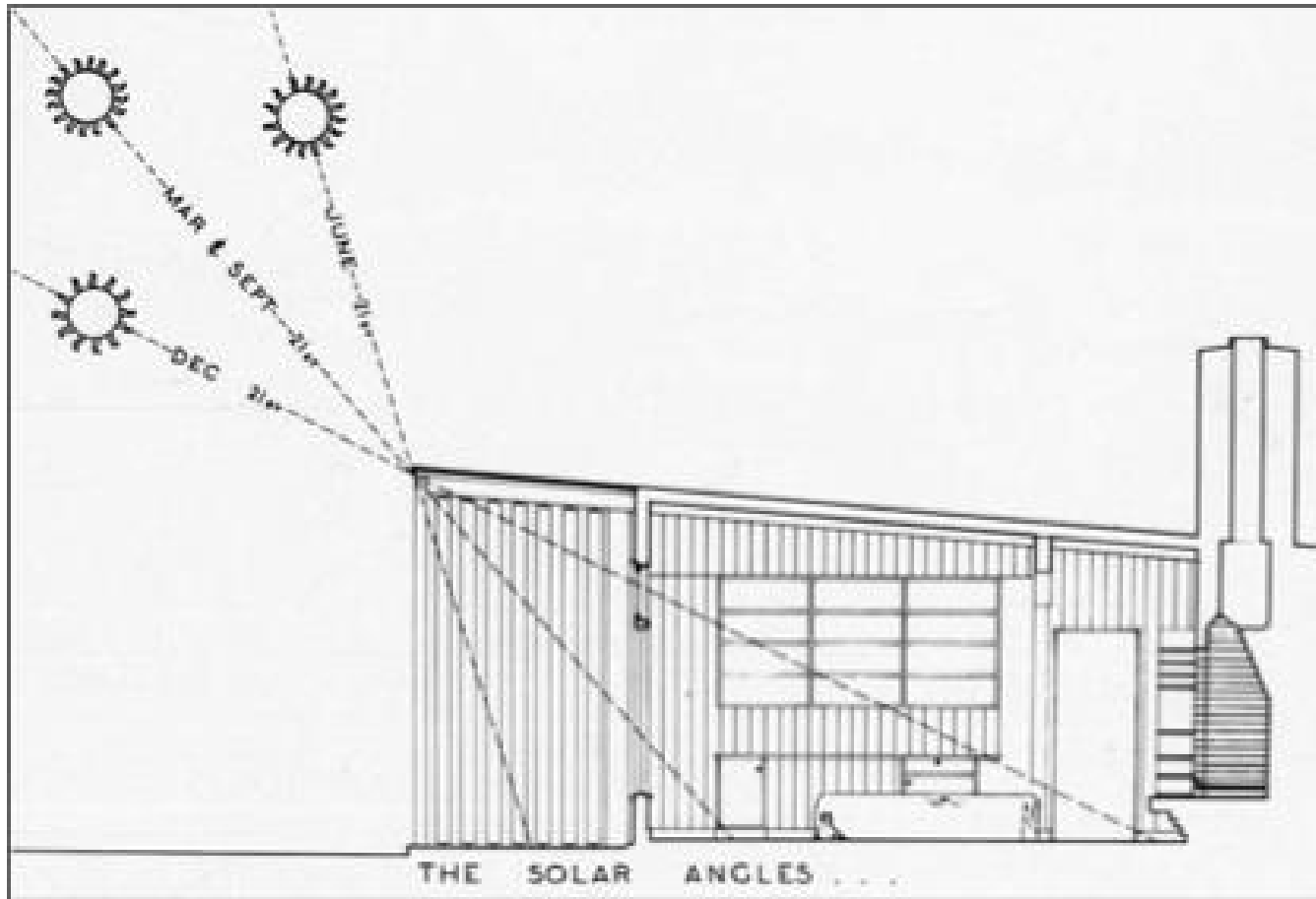
Une histoire d'alternatives



Thermopane 1932

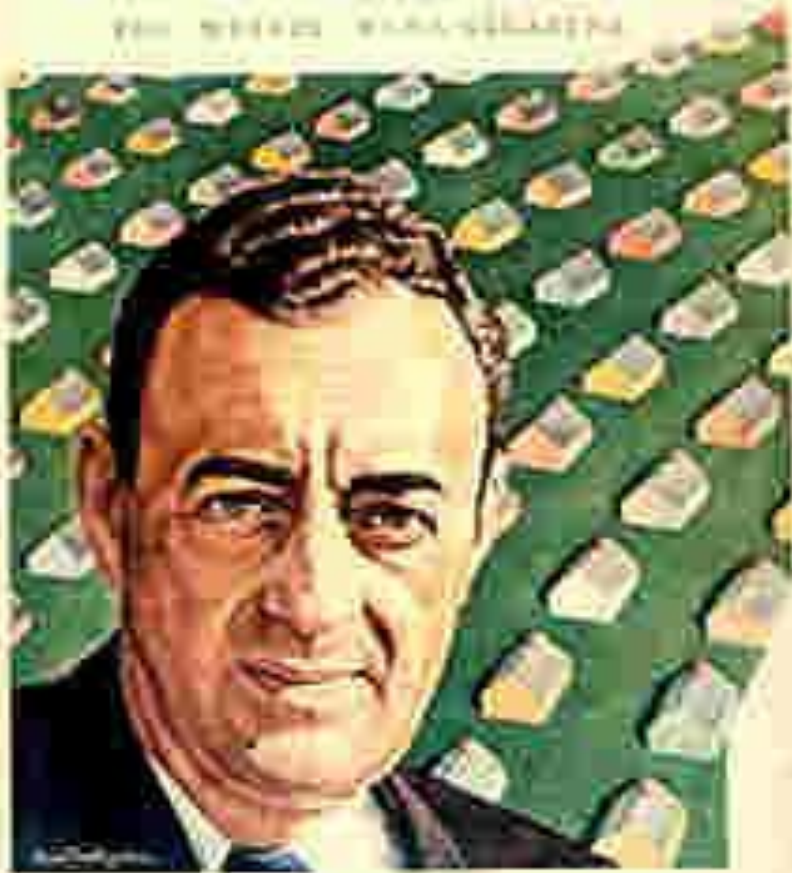


Keck, House of tomorrow, 1932.



TIME

THE WEEKLY MAGAZINE



3 Une histoire
de domination













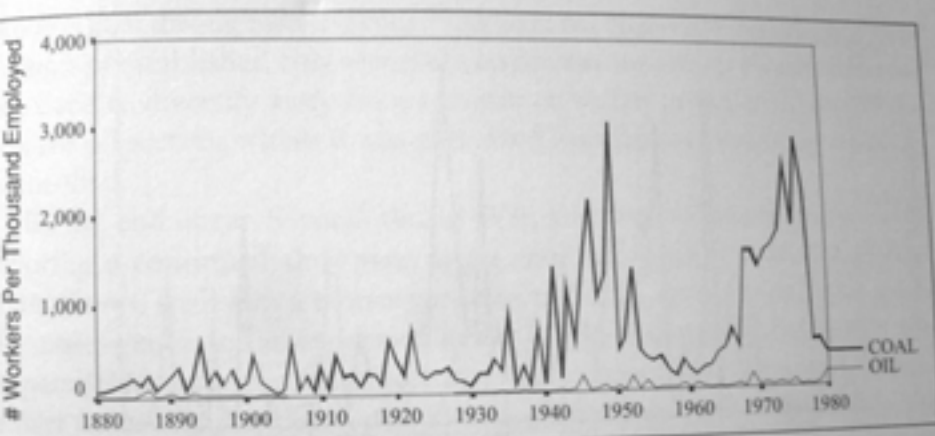
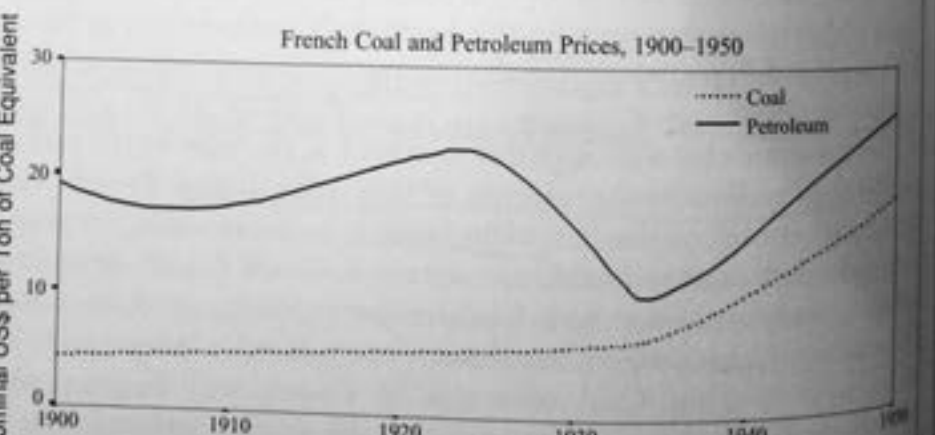
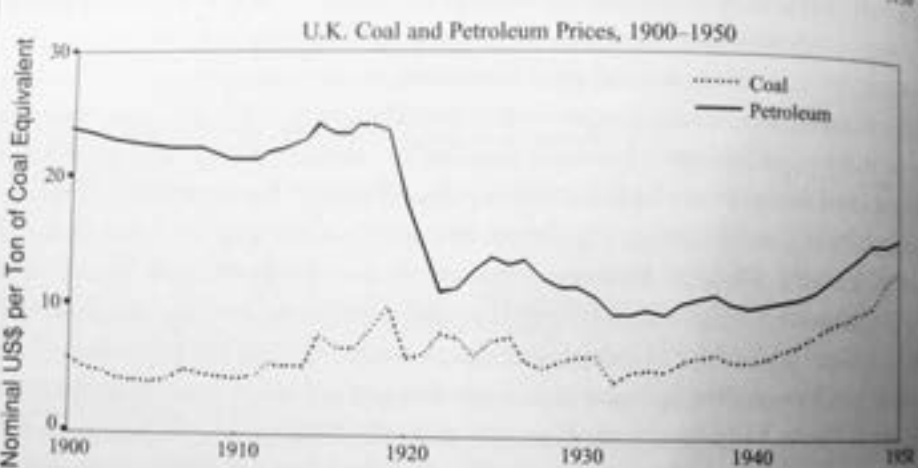
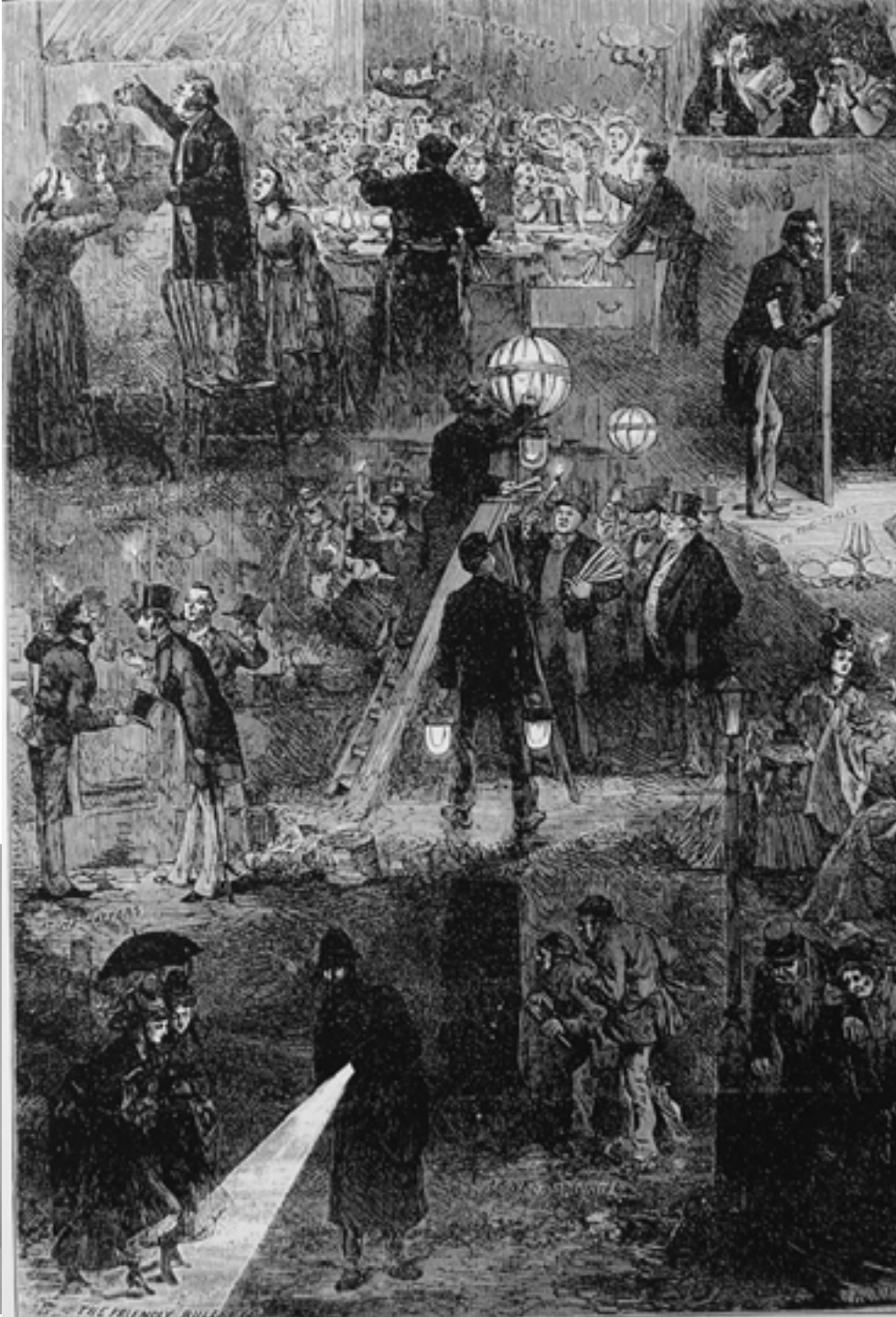
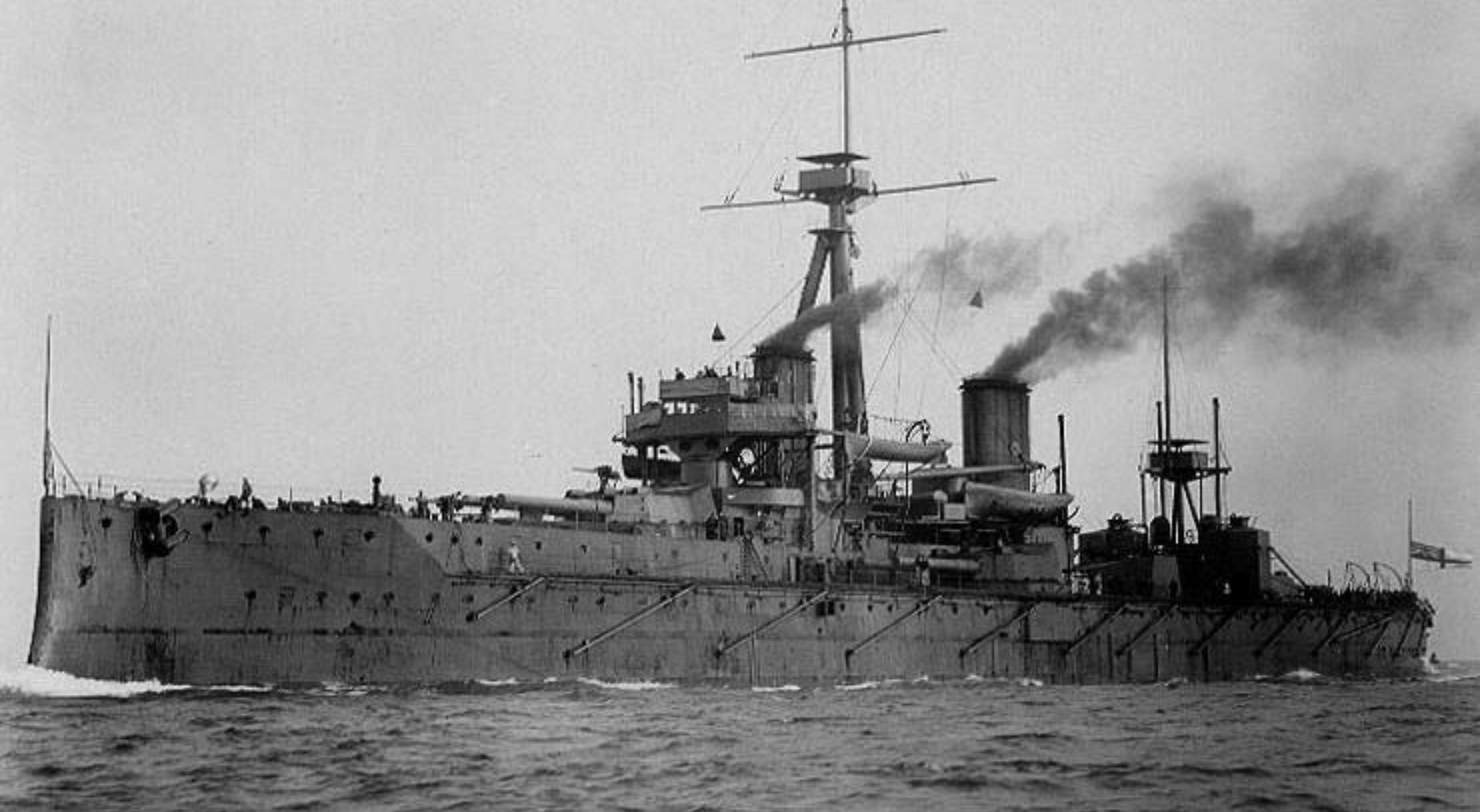


FIGURE 4.3. Strikes in U.S. Coal and Oil Industries, 1880-1980



4. La puissance plutôt que le rendement



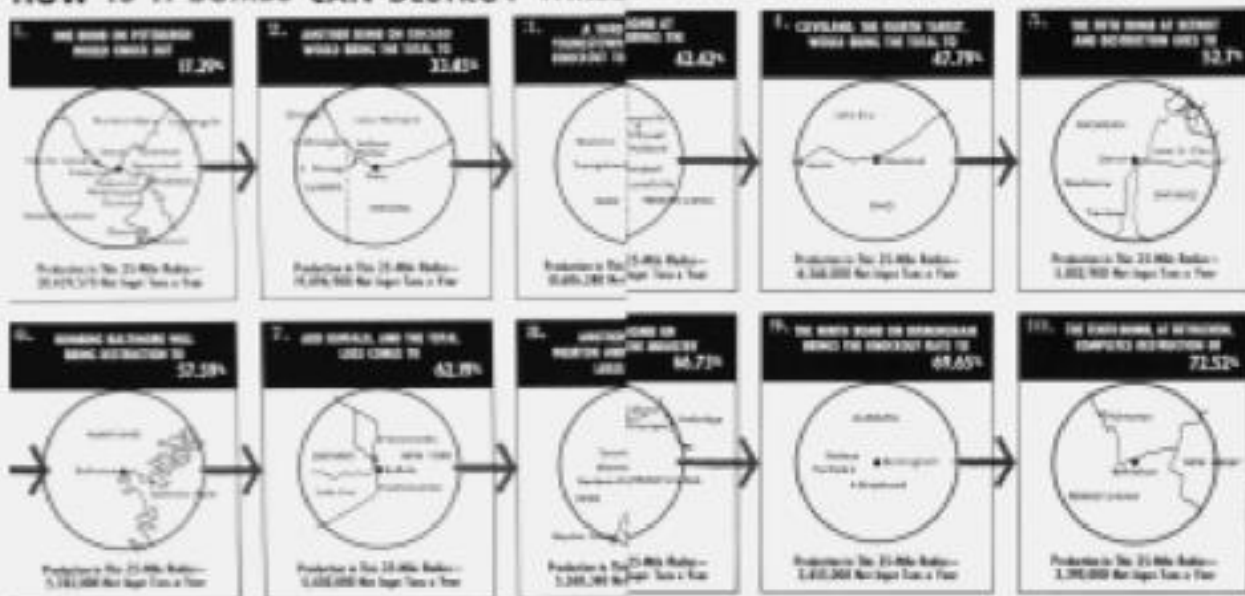


HMS Dreadnought 1906.





HOW 10 H-BOMBS CAN DESTROY THREE-FOURTHS OF THE STEEL INDUSTRY



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By SIMON PARRY in China and ED DOUGLAS in Scotland

CREATED: 19:32 BST, 26 January 2011

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By TIM BLOJLER
UPDATED: 12:21 BST, 23 August 2010

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By WILL ROBINSON
PUBLISHED: 20:02 BST, 27 June 2010 | UPDATED: 15:35 BST, 28 June 2010

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Berry end. The needletail pictured after he



read the wind farms.

French farmers say wind turbines and solar panels have killed hundreds of their cows

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Wind farms can actually INCREASE climate change by raising temperatures and using downpours, warn ademics

temperatures can fall by up to 4C downwind of farms
y MPs write to PM demanding dramatic subsidy cuts

[Like 100](#)

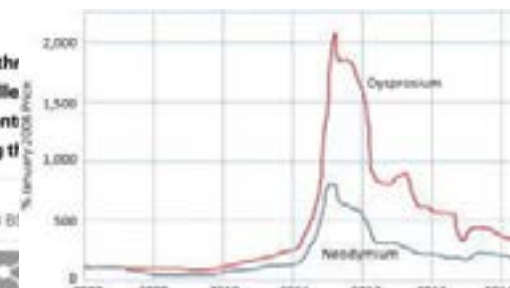
Wednesday, May 20

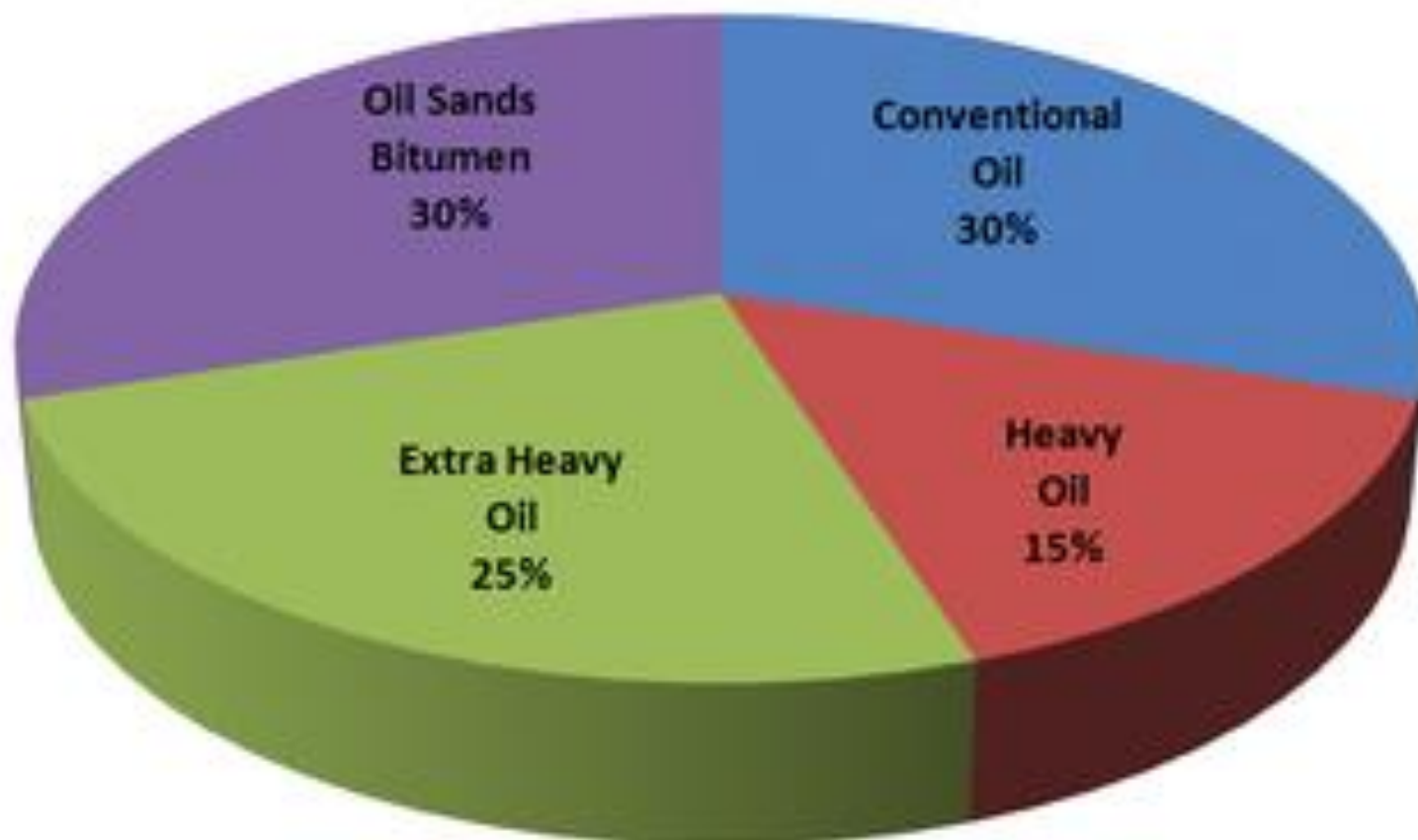
[myths](#)

The wind farms 'that ADD to carbon emissions': Sites built on peat bogs could increase greenhouse gases

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By NICK McDERMOTT FOR MAILONLINE
PUBLISHED: 17:47 BST, 26 September 2013 | UPDATED: 17:48 BST, 26 September 2013





End of an era as Ireland closes its peat bogs 'to fight climate change'

Shift to renewables is too late say campaigners as peatlands will still emit greenhouse gases



Cutting turf on Achill Island. Ireland's action on climate change comes as it is facing up to €600m in emissions fines. Photograph: Christopher Hill, Photo: ap/Scenic Ireland/Alamy

Thar's coal in the desert Pakistan's biggest private-sector firm bets on a fabled coal mine

Just 1% of the vast reserve discovered in 1992 could supply a fifth of the country's current energy generation for half a century



THE WALL STREET JOURNAL

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https://www.wsj.com/articles/fans-of-coal-are-reaping-the-rewards-1151708207

MARKETS

Fans of Coal Are Reaping the Rewards

Bets on coal by global mining firms are paying off as Asian demand boosts prices for the fuel

Le Monde

28 avril 2018

article suivant

Araxos, l'entrepreneur qui dégage...



La demande de pétrole va continuer à augmenter

Malgré la lutte contre les émissions de CO2, la consommation d'or noir devrait encore progresser d'ici à 2040

Quelle sera la durée de vie du pétrole ? La croissance continue du secteur de la pétrochimie, qui permet notamment de produire des matières plastiques, pourrait bien soutenir, pendant longtemps encore, la demande d'or noir.

Dernier exemple en date : le 11 avril, le groupe pétrolier saoudien Araxos a annoncé un gigantesque projet de raffinage et de pétrochimie en Inde pour 44 milliards de dollars (environ 36 milliards d'euros). " La pétrochimie est le point aveugle du débat sur le pétrole ", analysait début mars, devant des journalistes, Fath Bired, le directeur de l'Agence internationale de l'énergie (AIEA). " Dans les cinq prochaines années, elle pourrait représenter 25 % de la demande ", notait M. Bired.

Dump trucks drive along haul roads at a coal mine in Australia. The Sino company has stepped up coal exports even as rival miners exit the business. PHOTO: BRUNO L. THOMAS/BLOOMBERG NEWS

By Paul Garvey

Le Monde

17 mars 2018

article suivant >

Le casse-tête de l'évaluation...

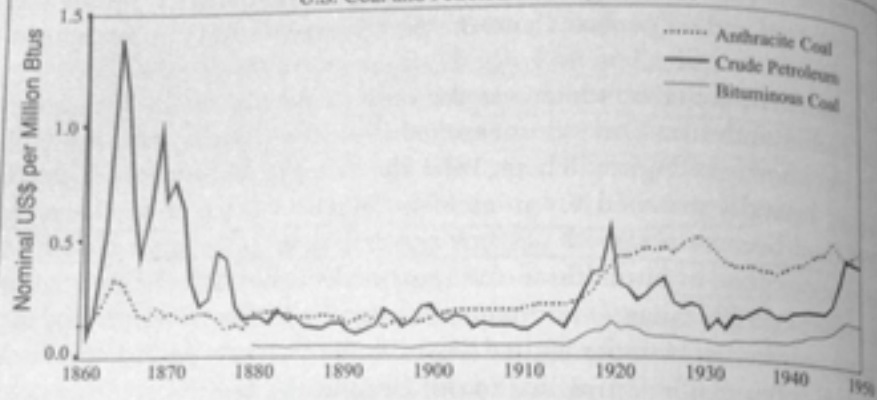
A Midland, la nouvelle ruée vers l'or noir



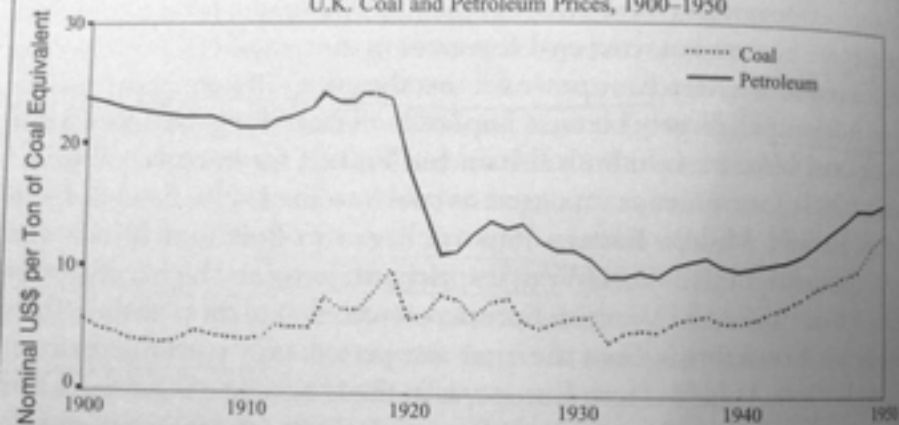
Des dizaines de milliers de travailleurs affluent dans l'ouest du Texas pour participer à la ruée vers le pétrole de schiste, qui redessine l'équilibre mondial



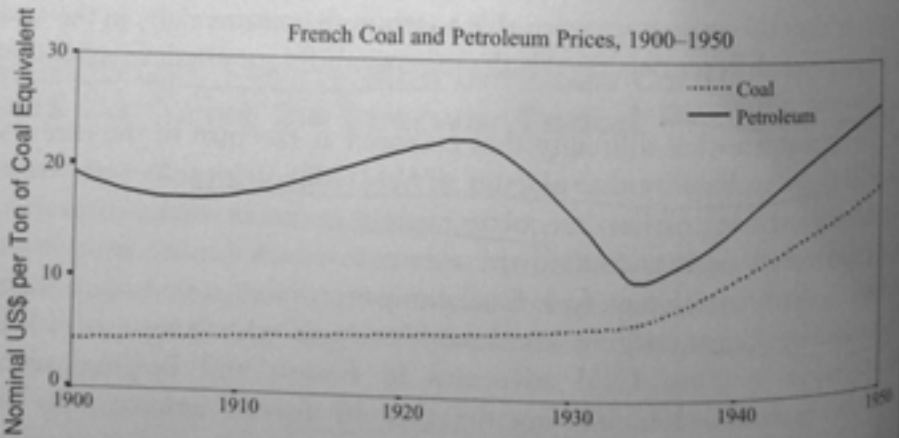
U.S. Coal and Petroleum Prices, 1860-1950



U.K. Coal and Petroleum Prices, 1900-1950



French Coal and Petroleum Prices, 1900-1950



Comment comprendre la
pétrolisation de nos
sociétés?

(B. Podobnick & T.
Mitchell)

Prix du pétrole > prix du
charbon



34 'Effects of the Gas Strike in London', supplement to the *Illustrated London News*, 14 December 1872, p. 569.

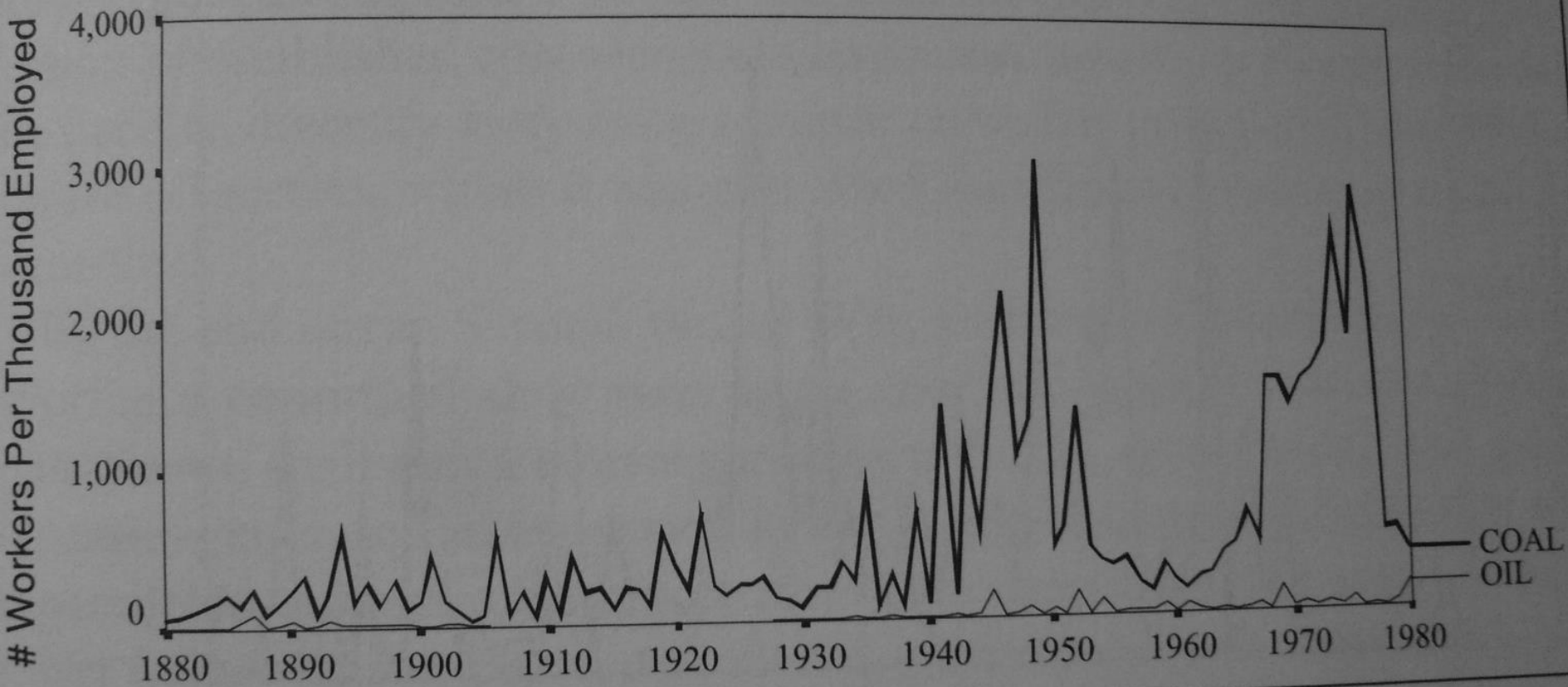


FIGURE 4.3. Strikes in U.S. Coal and Oil Industries, 1880–1980

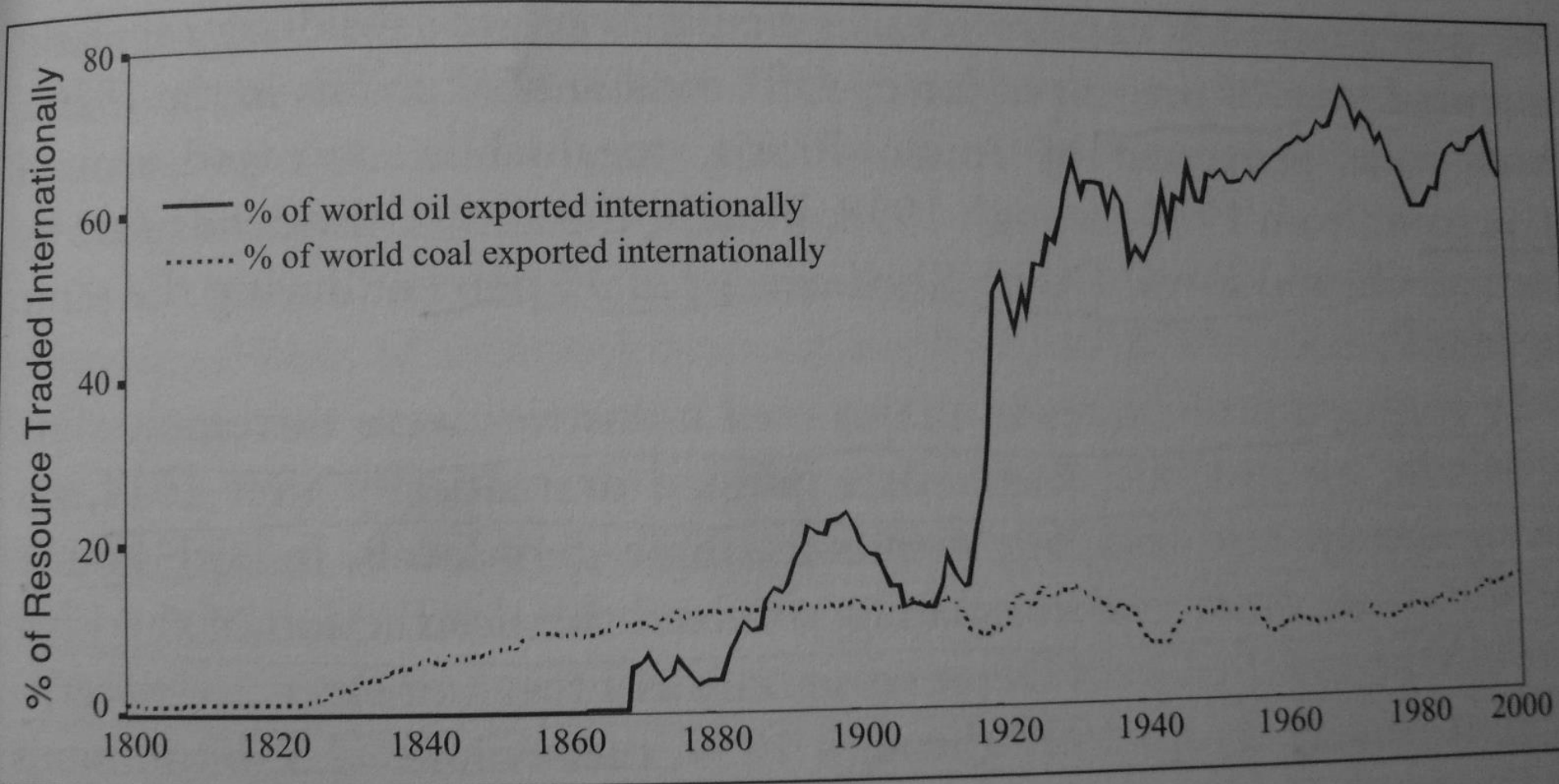


FIGURE 4.2. Export Ratios for Coal and Oil, 1800–2000

Practical matters

- I take 2 weeks of paternity leave=>
- No lecture next week (16th of Nov)
- Kapil Subramanian will teach on the 23 of Nov
- I will teach **2 HOURS on the 30th of November**

Energy Transitions

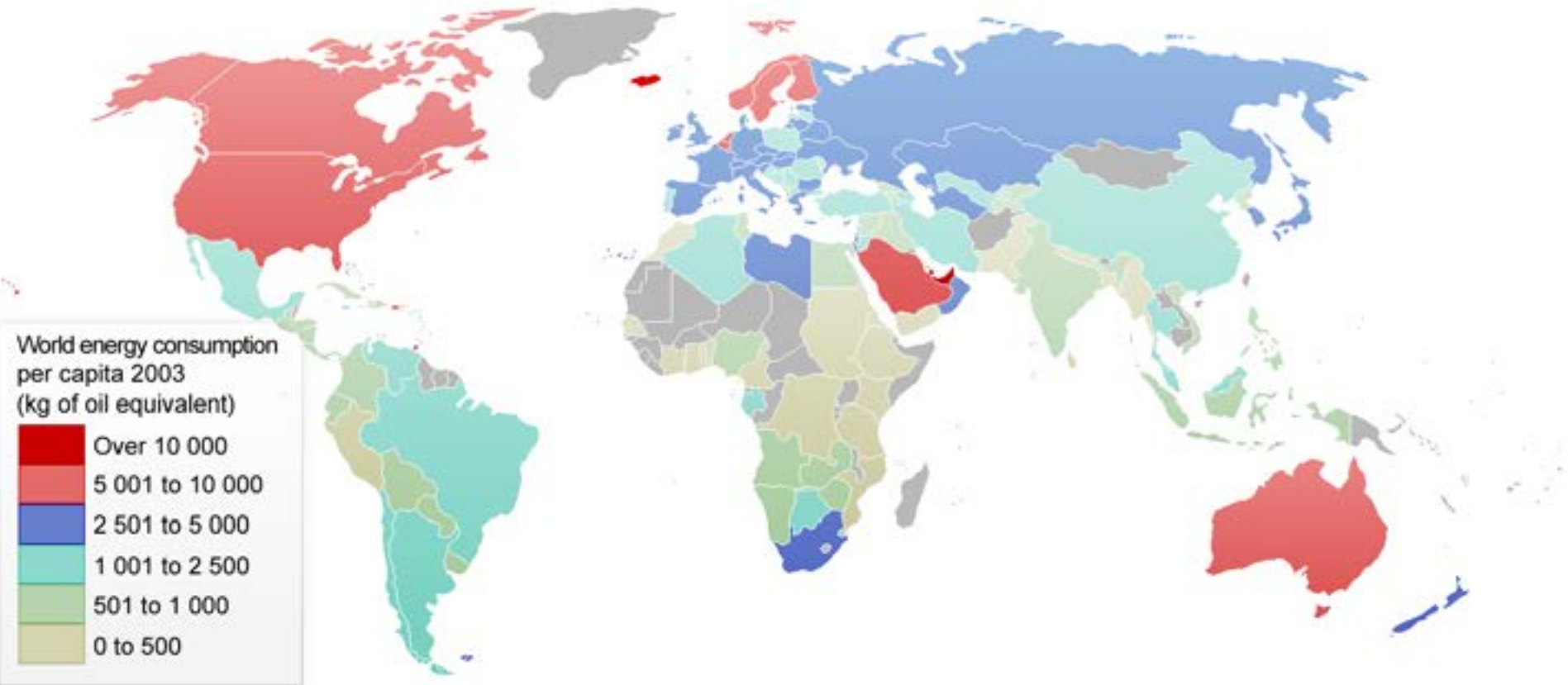
Post Fukushima + Pbms in Niger : islamic rebels mouted attacks against against their uranium mines.

- 1° 3D, technical mastery, flight simulator effect=>image of mastery, of precision, of expertise. Everything is under control.
- 2° Sun, then pollution with coal, sun and clear blue sky with nuclear
- 3° new emerging countries : Rio de Janeiro, is the future.
- 4° Leisure society (different from 19 C Britain)
- 5° notion of free CO2 energy, not renewable
- 6° history of transition.
- 7° nuclear as hope

3 challenges

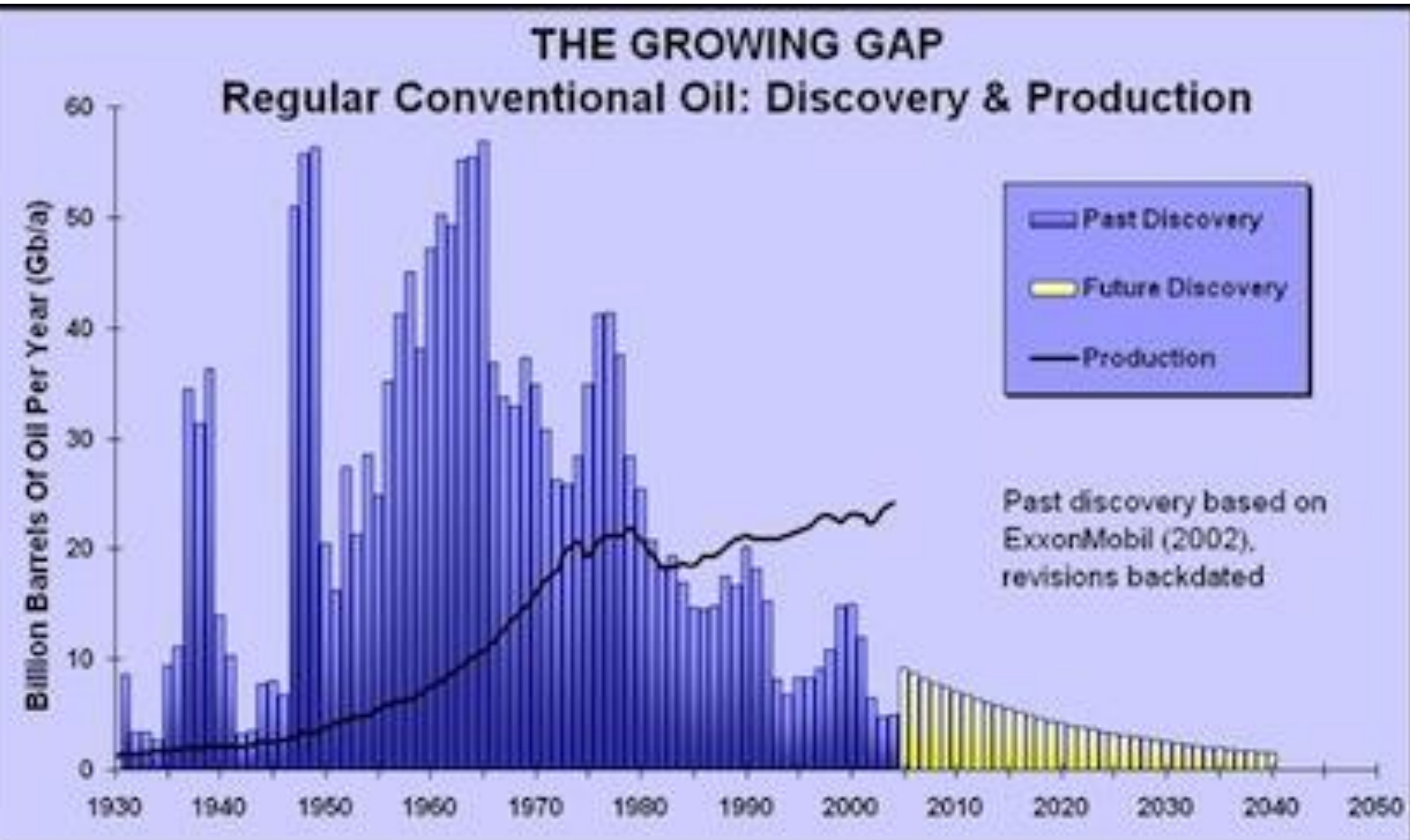
- massive energy inequalities
- horizon of peak oil
- the wall of climate change

Energy inequalities



Source : IEA

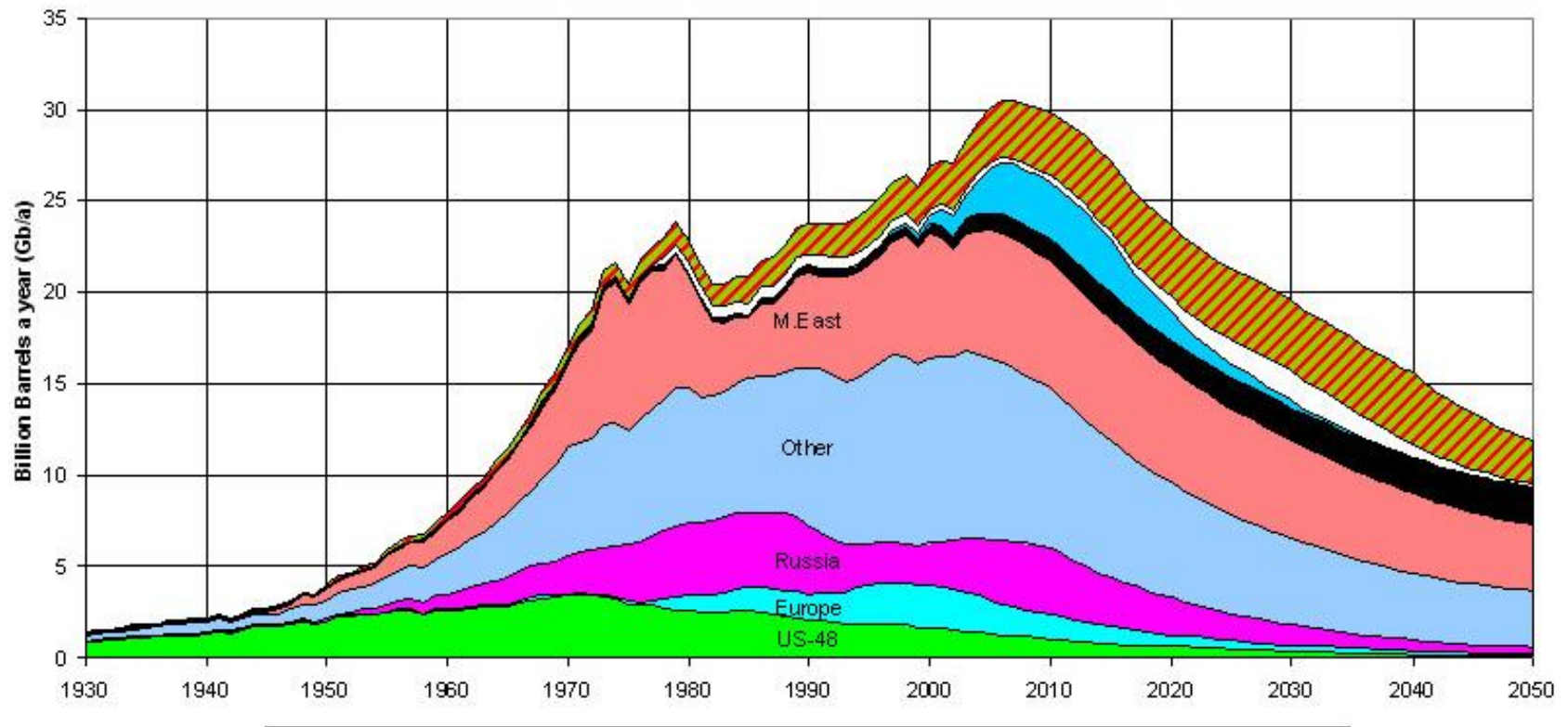
Peak oil horizon



Source ASPO

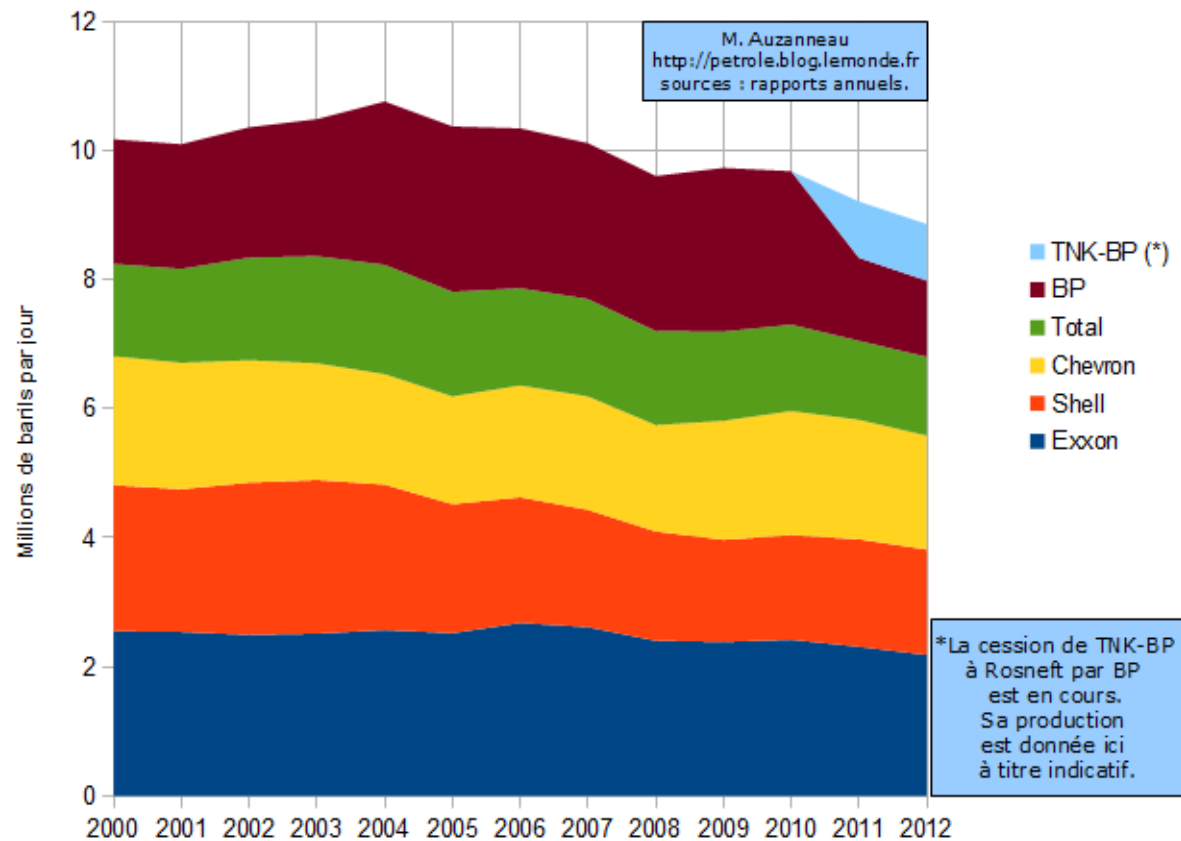
ASPO 2004. Association for the study of Peak Oil

OIL AND GAS LIQUIDS 2004 Scenario

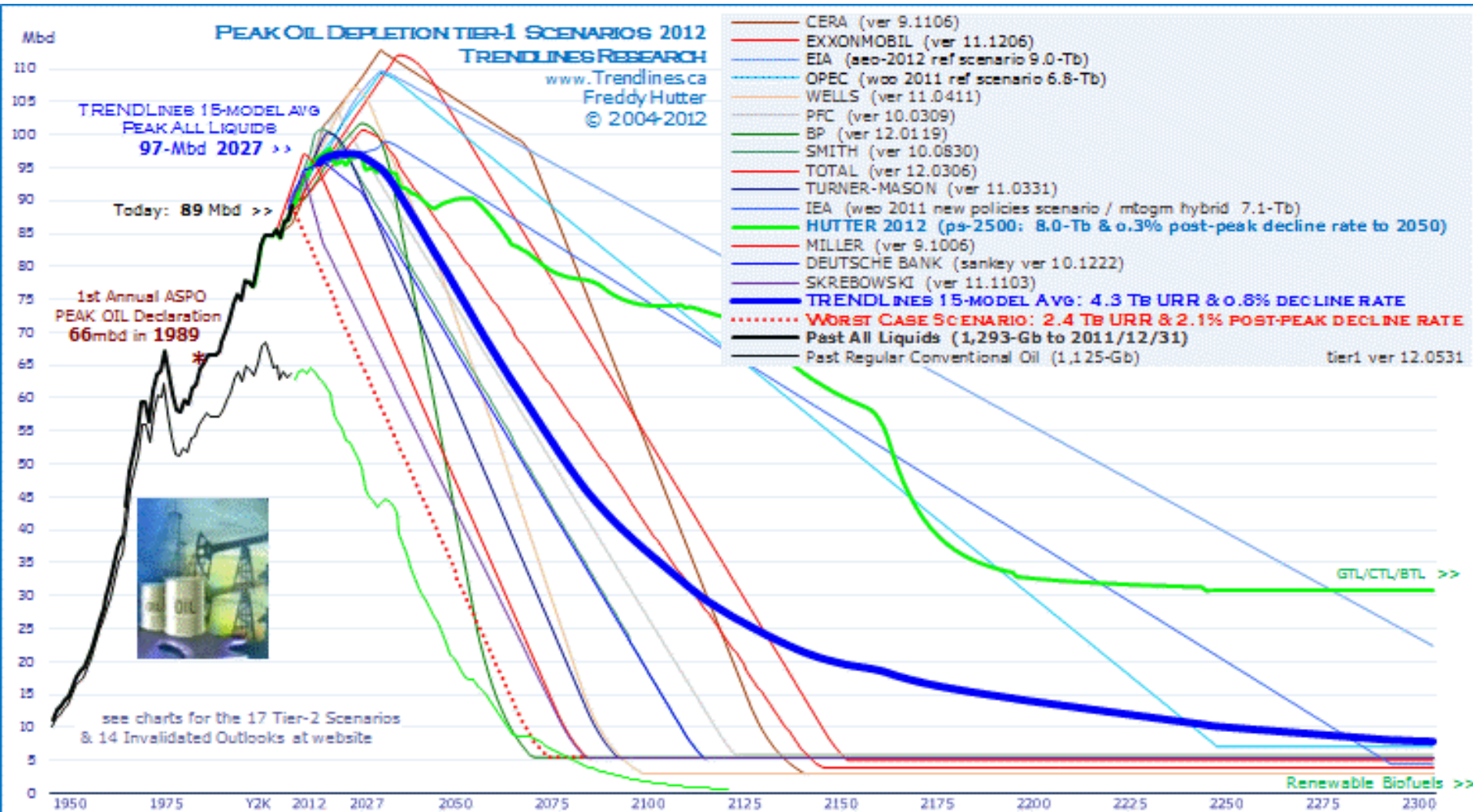


Déclin depuis 2004 du cumul de la production de pétrole des 5 "majors"

(pétrole brut conventionnel, gaz naturels liquides, bitumes)



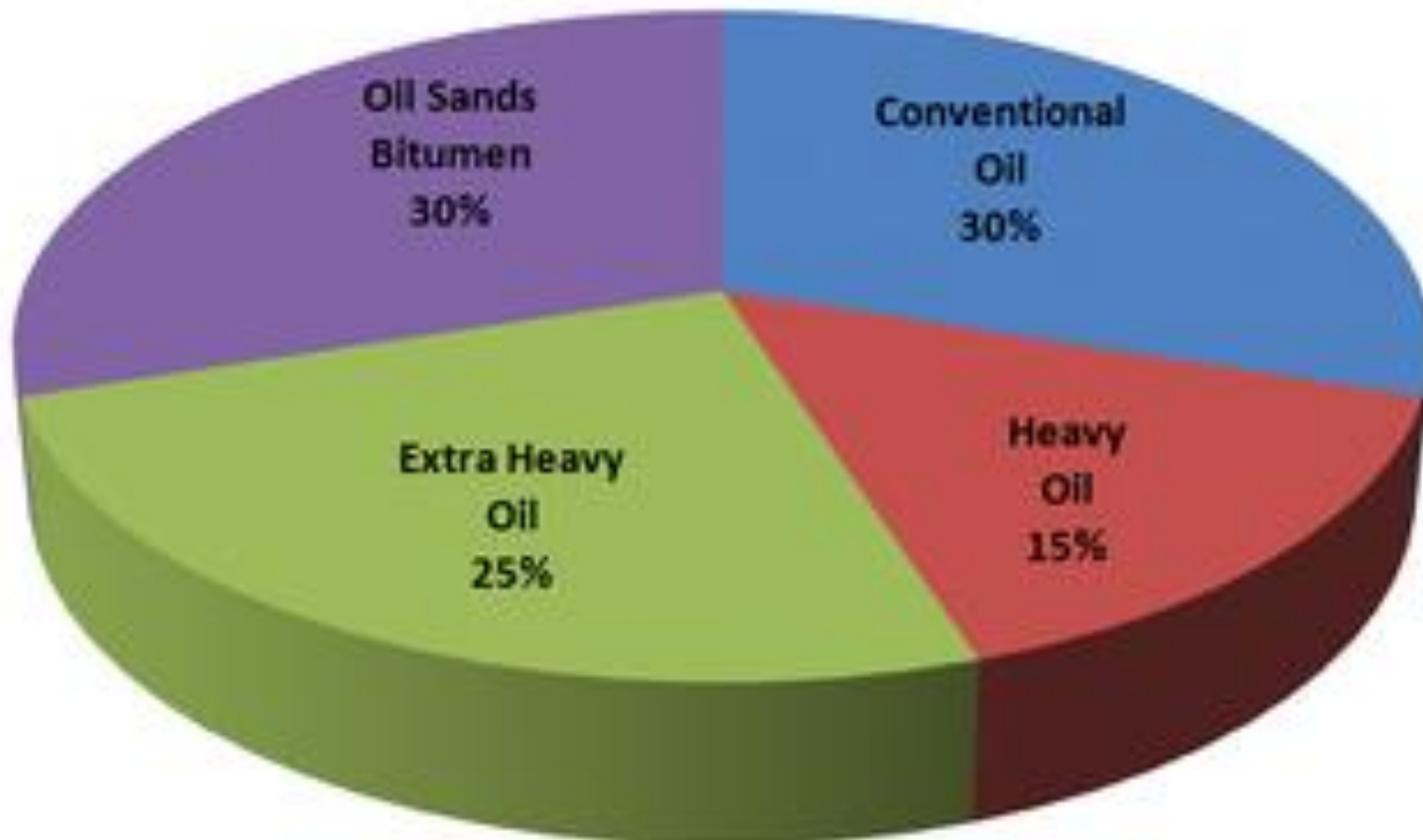
Big uncertainties about “oil” reserves



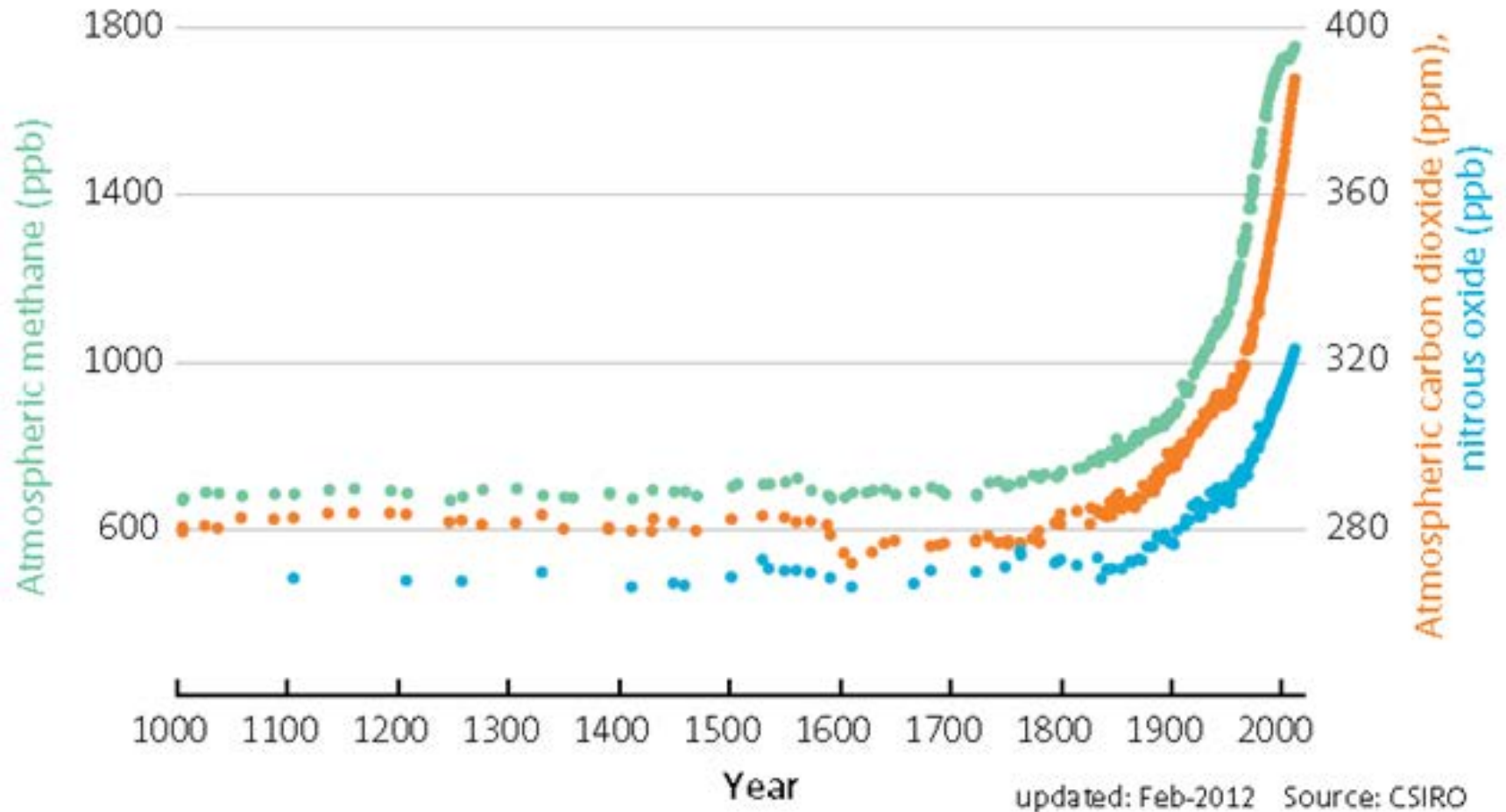
Alberta tar-sands



What if?



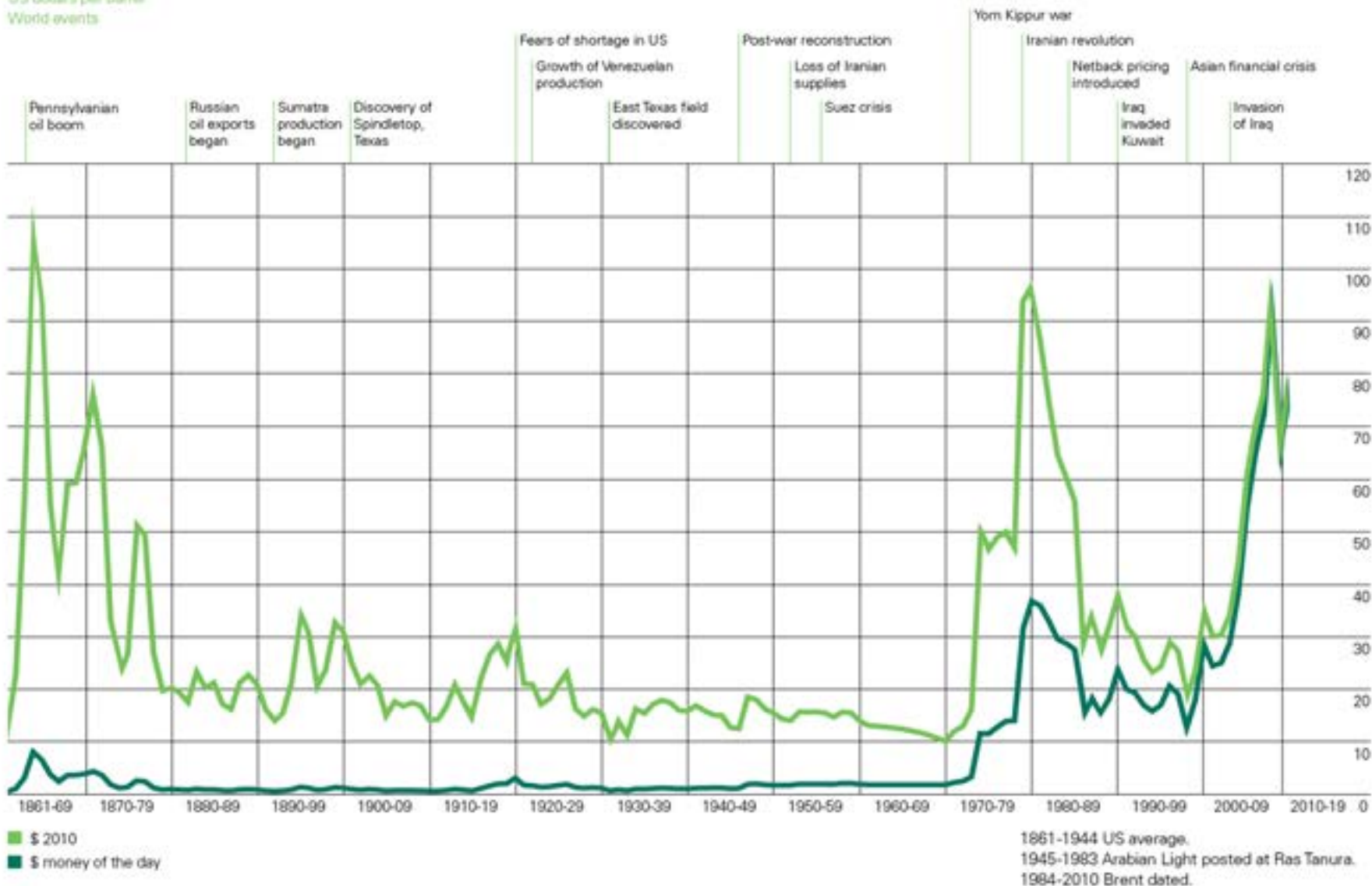
The climate change wall



Crude oil prices 1861-2010

US dollars per barrel

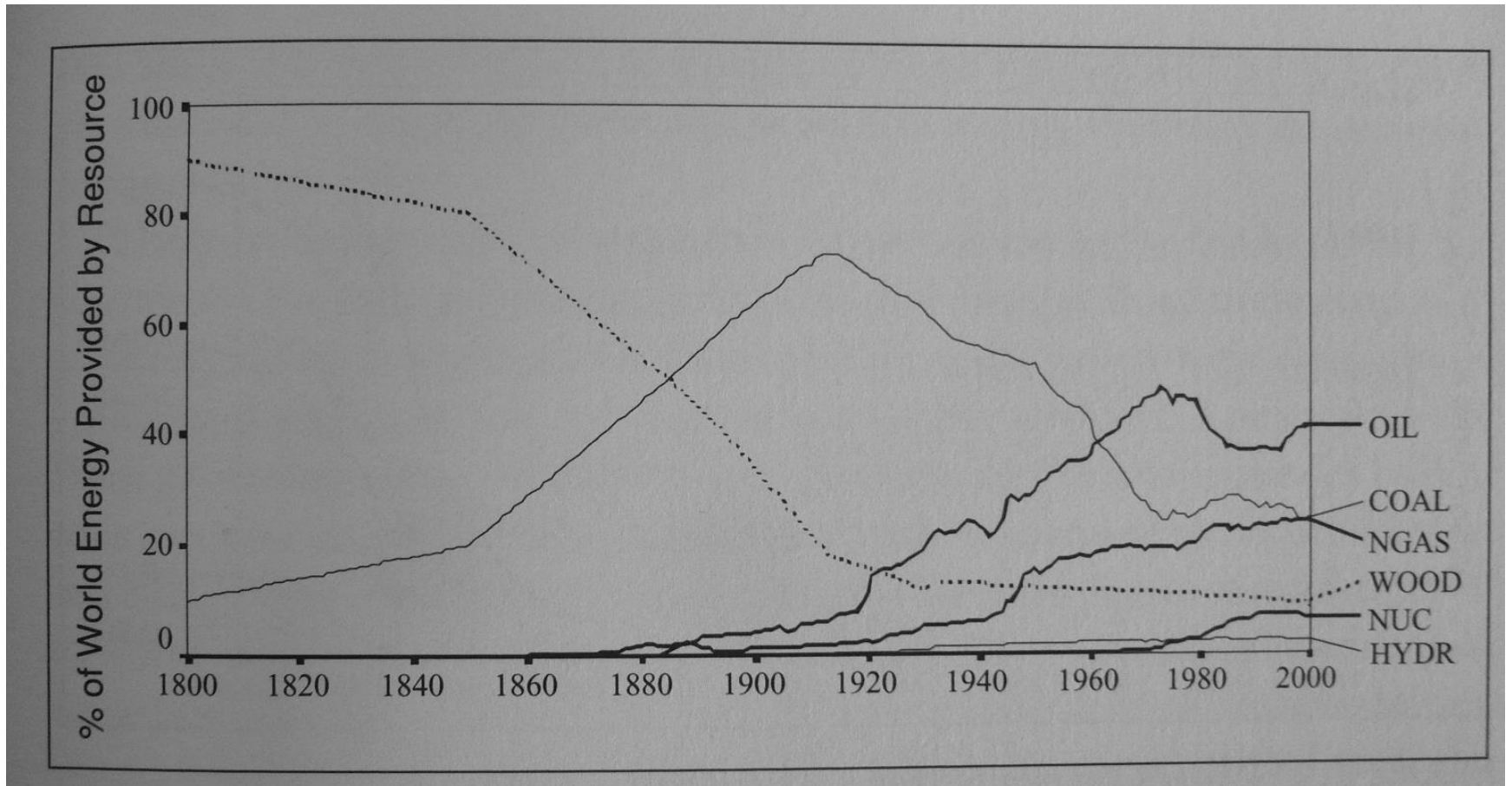
World events



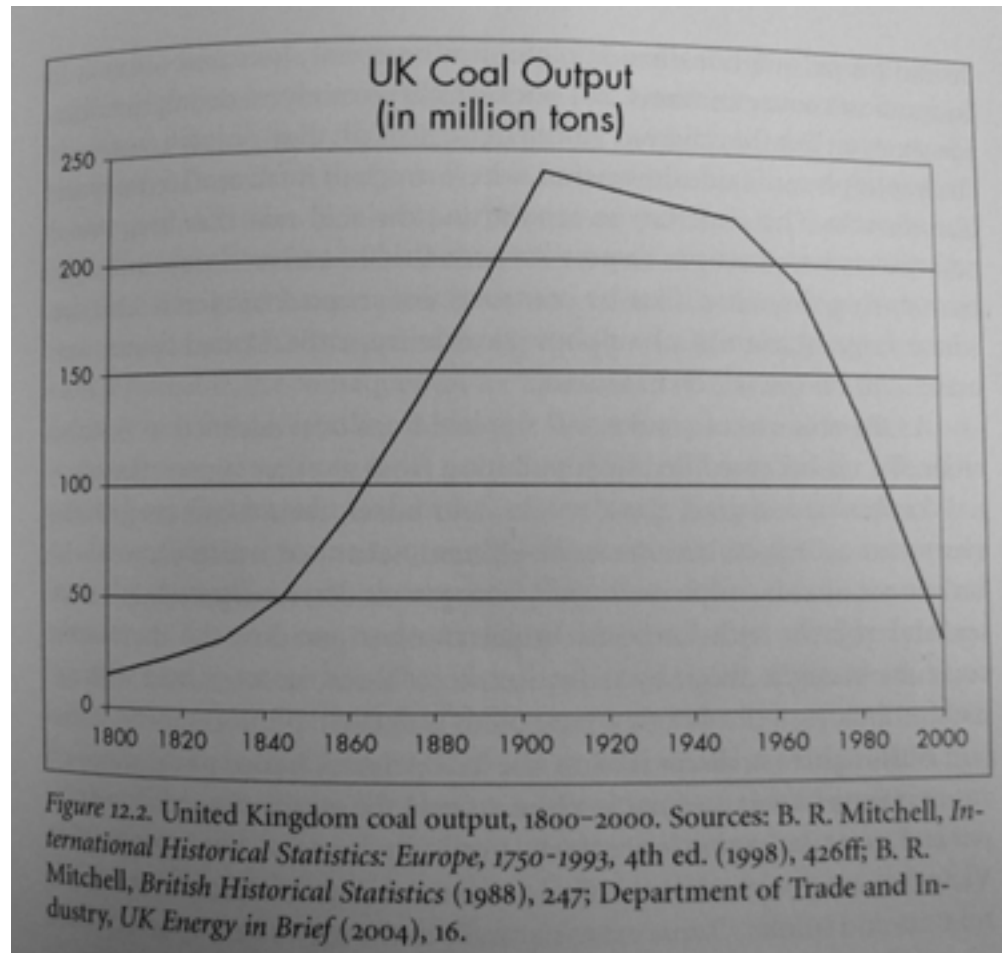
Historical lessons

1. Energy additions, not transitions
2. Additions not “natural”=>we need to have a political history of energy
3. Consequences for our times.

Transitions?



No transition in history ! =>only addition of energy sources



From organic economy to growth economy.

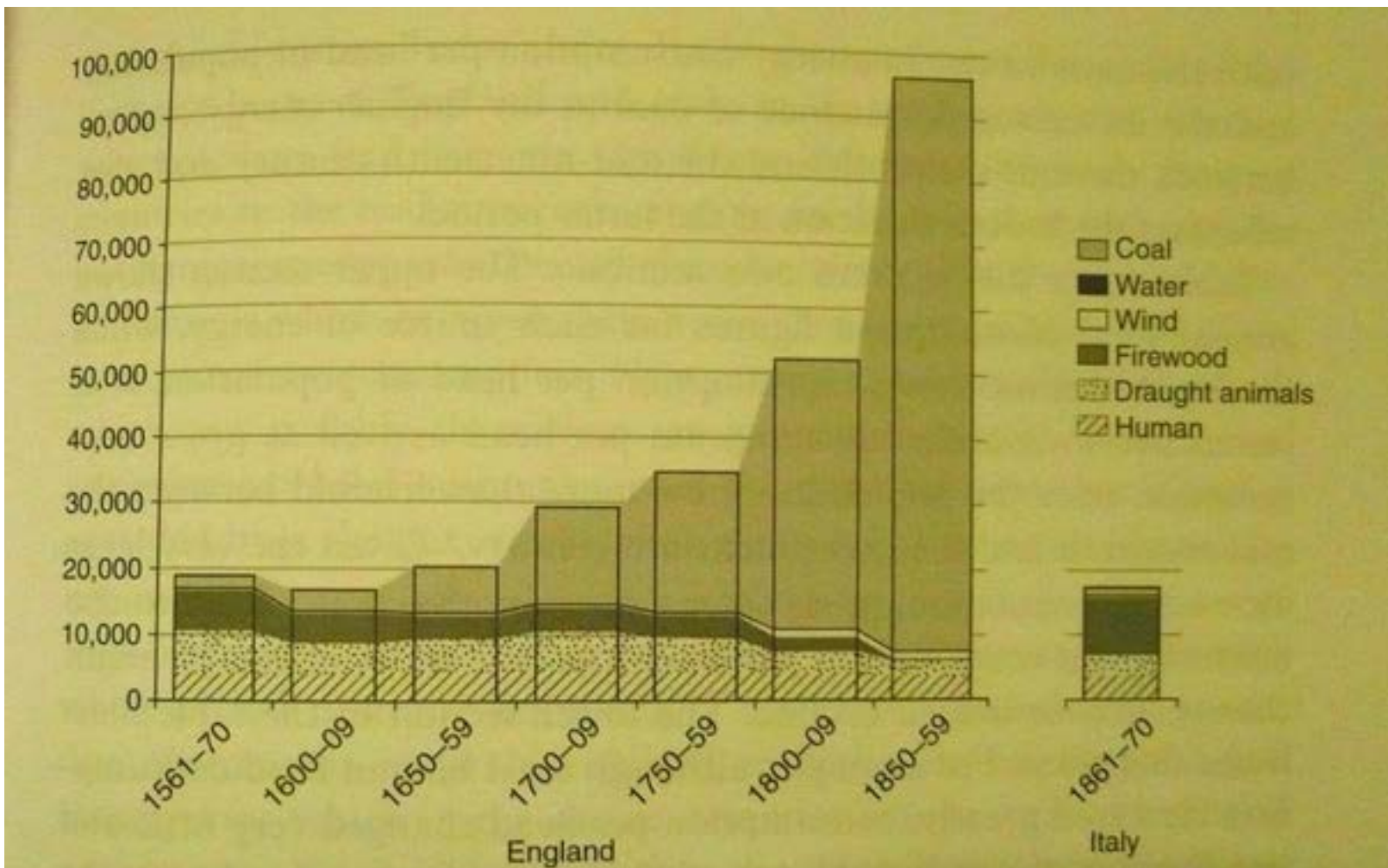
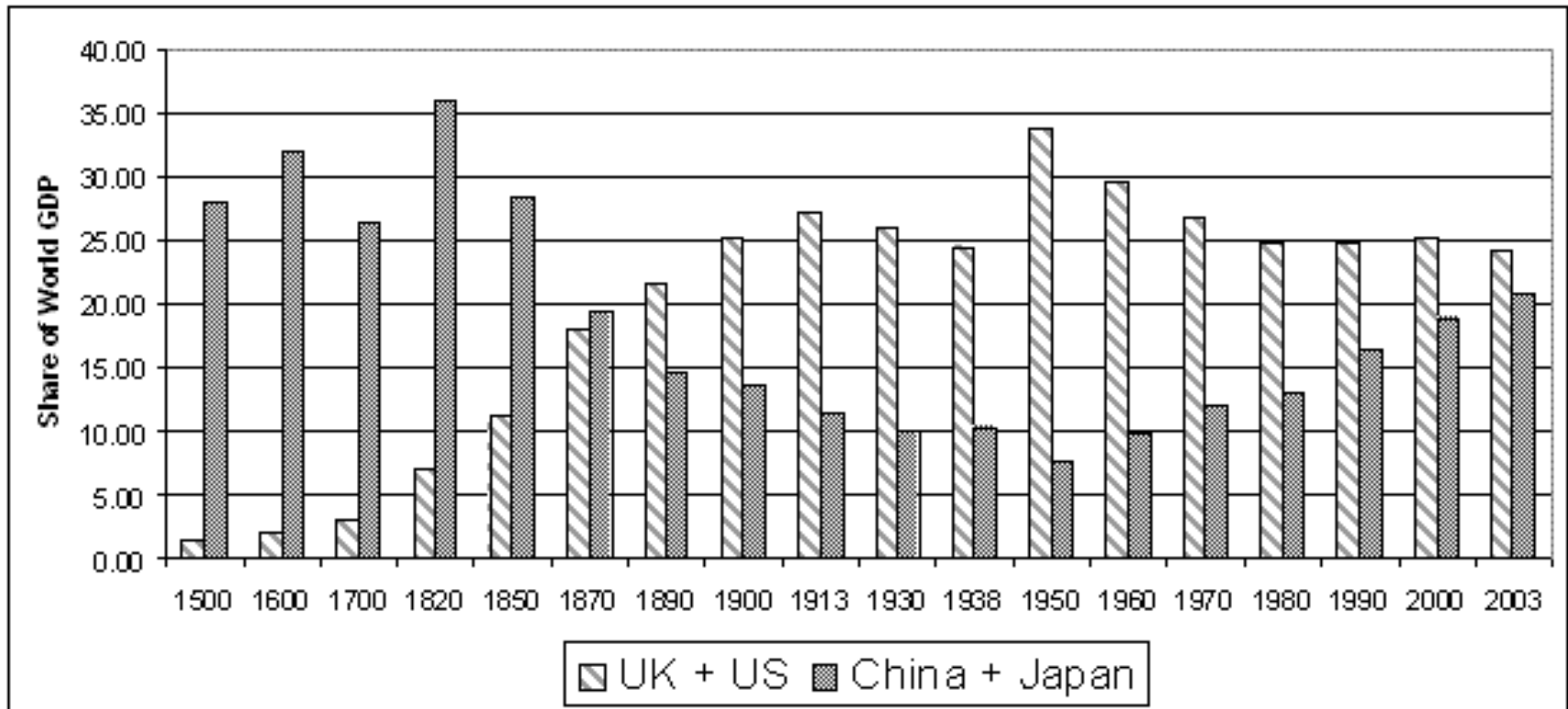


Figure 4.1 Annual energy consumption per head (megajoules) in England and Wales 1561-70 to 1850-9 and in Italy 1861-70.

Source: Tables 4.1 and 4.2

Coal, empire and the great divergence (Kenneth Pomeranz)



Source : Angus Maddison

Expansion of coal : From 18 à 140 M

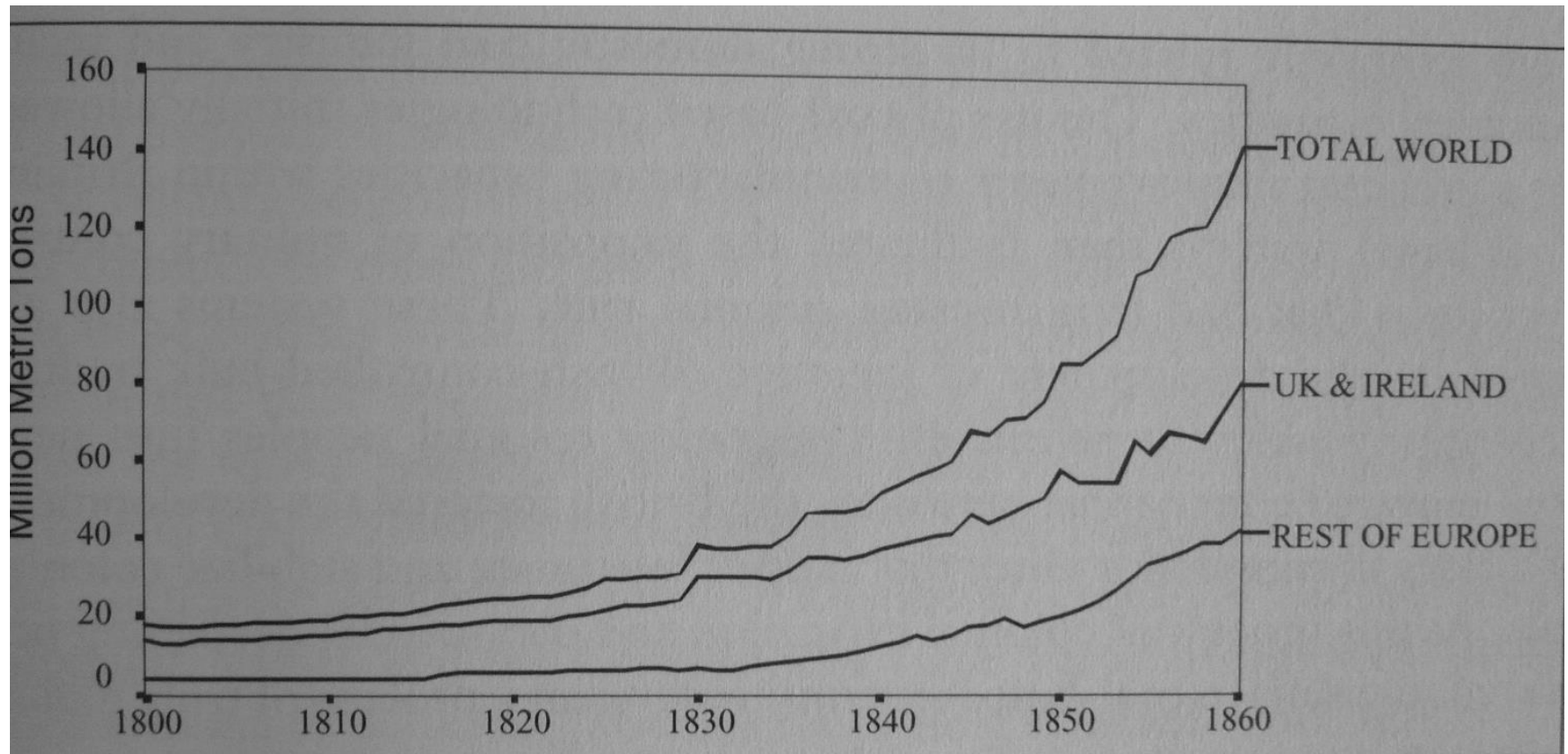
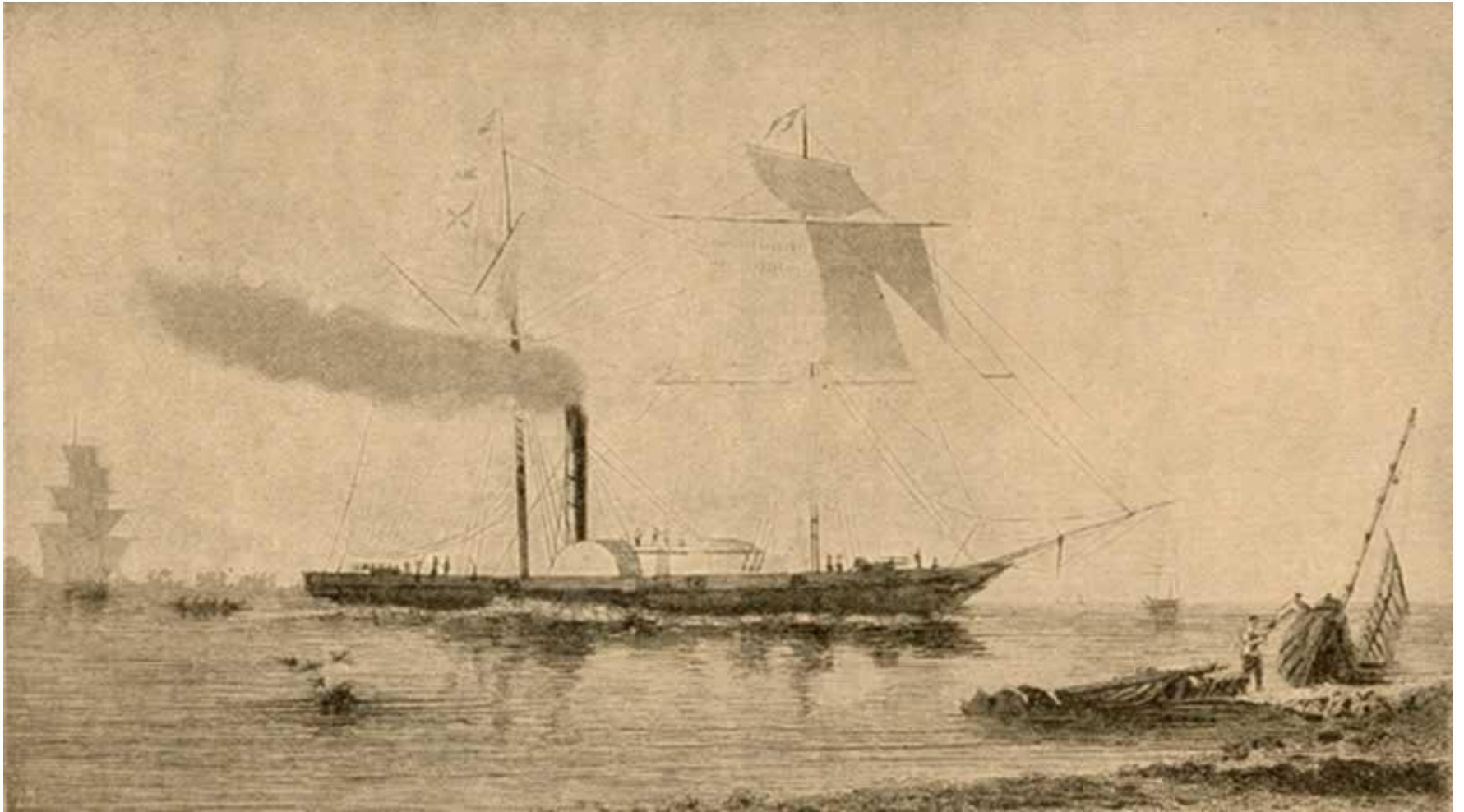
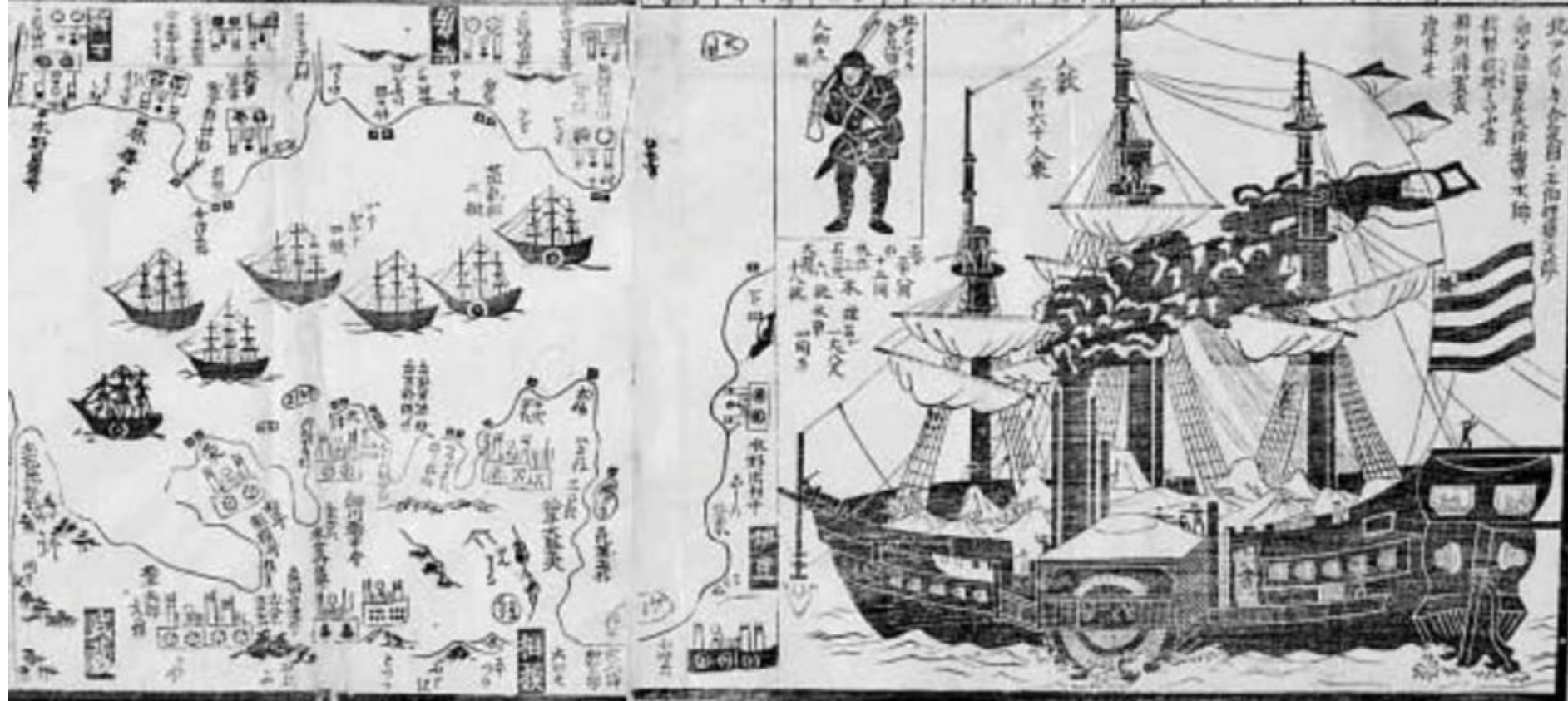


FIGURE 2.1. Expansion of the Coal System, 1800–1860

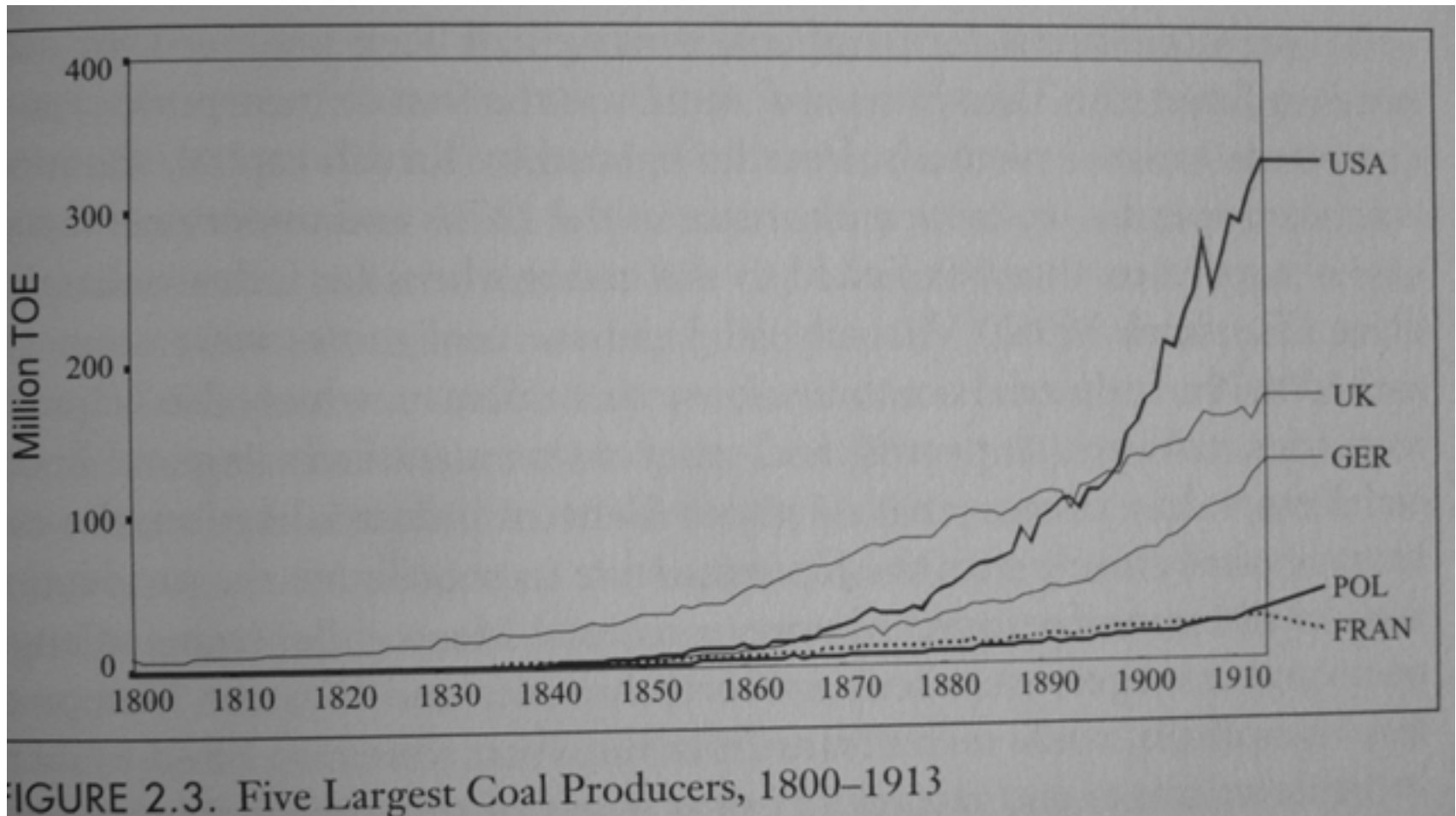
Coal and empire : 1840 Nemesis in the first Opium War



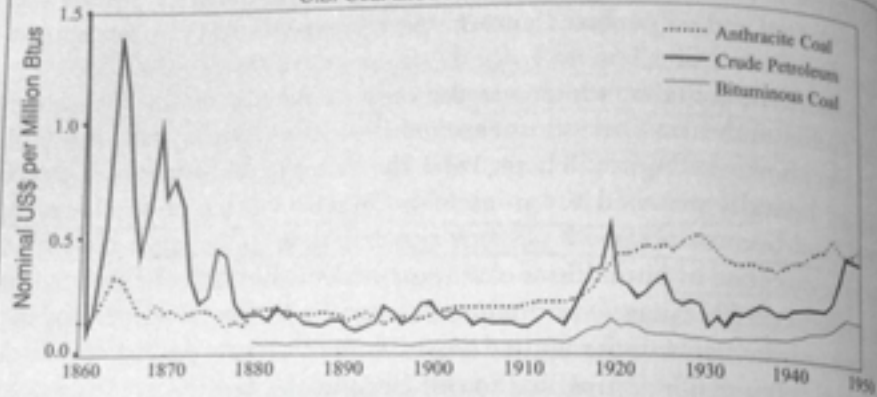
1853 Commodore Perry in Japan.



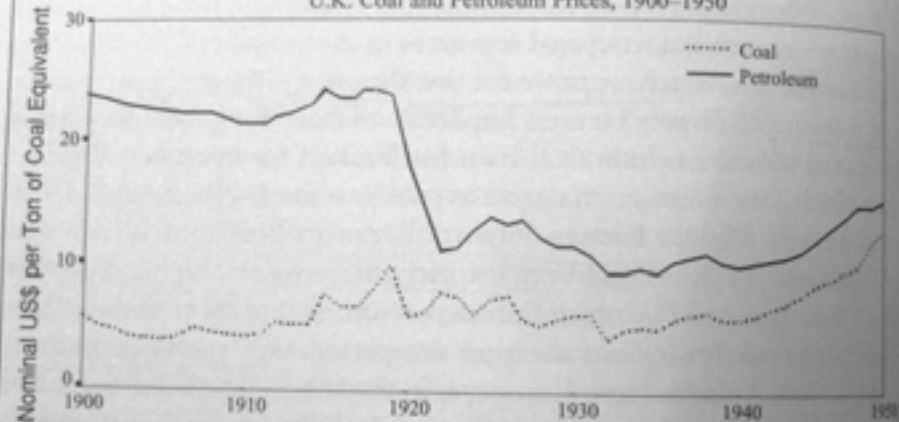
Expansion of coal in the US



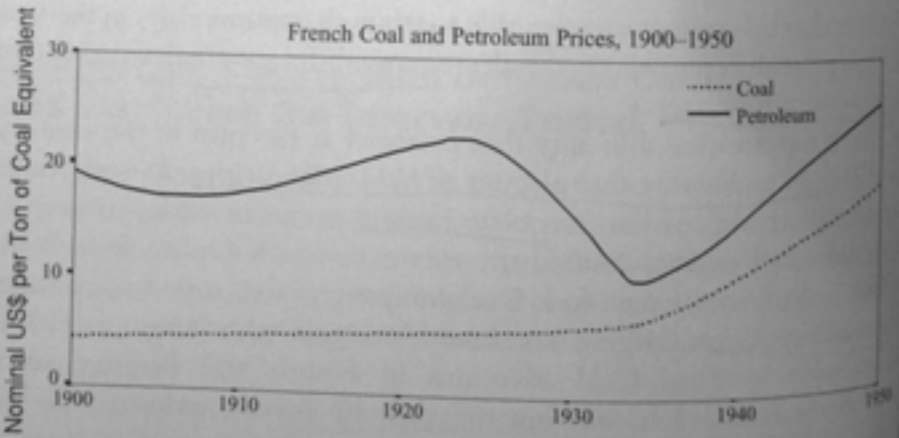
U.S. Coal and Petroleum Prices, 1860-1950



U.K. Coal and Petroleum Prices, 1900-1950



French Coal and Petroleum Prices, 1900-1950



Pbm : Oil prices > coal prices.

FIGURE 4.1. International Coal and Petroleum Prices, 1860-1950
Sources: U.S. Department of Commerce, Bureau of Economic Analysis (1988).

Oil and social conflicts (Tim Mitchell).

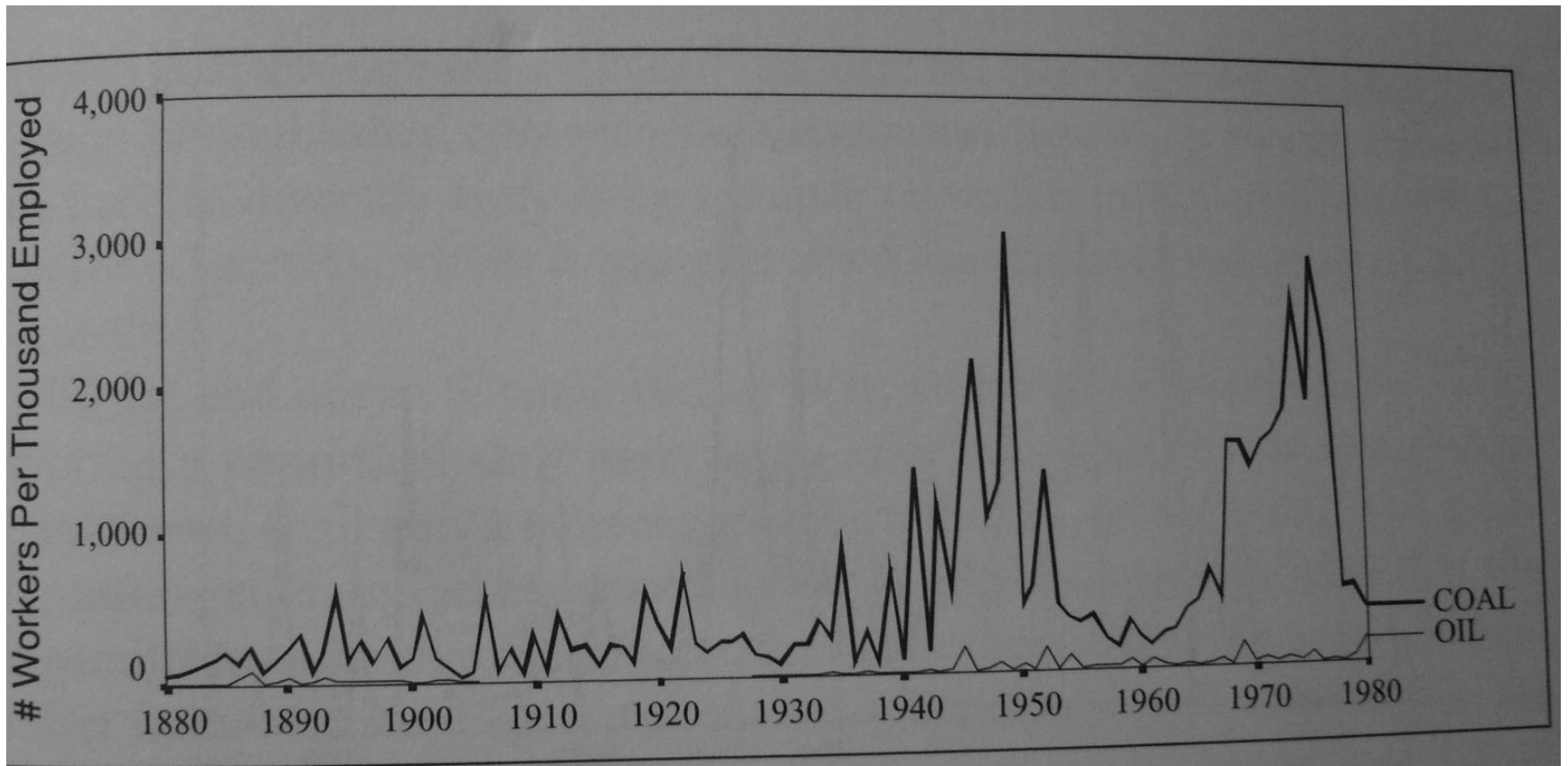


FIGURE 4.3. Strikes in U.S. Coal and Oil Industries, 1880–1980

Signal Hill



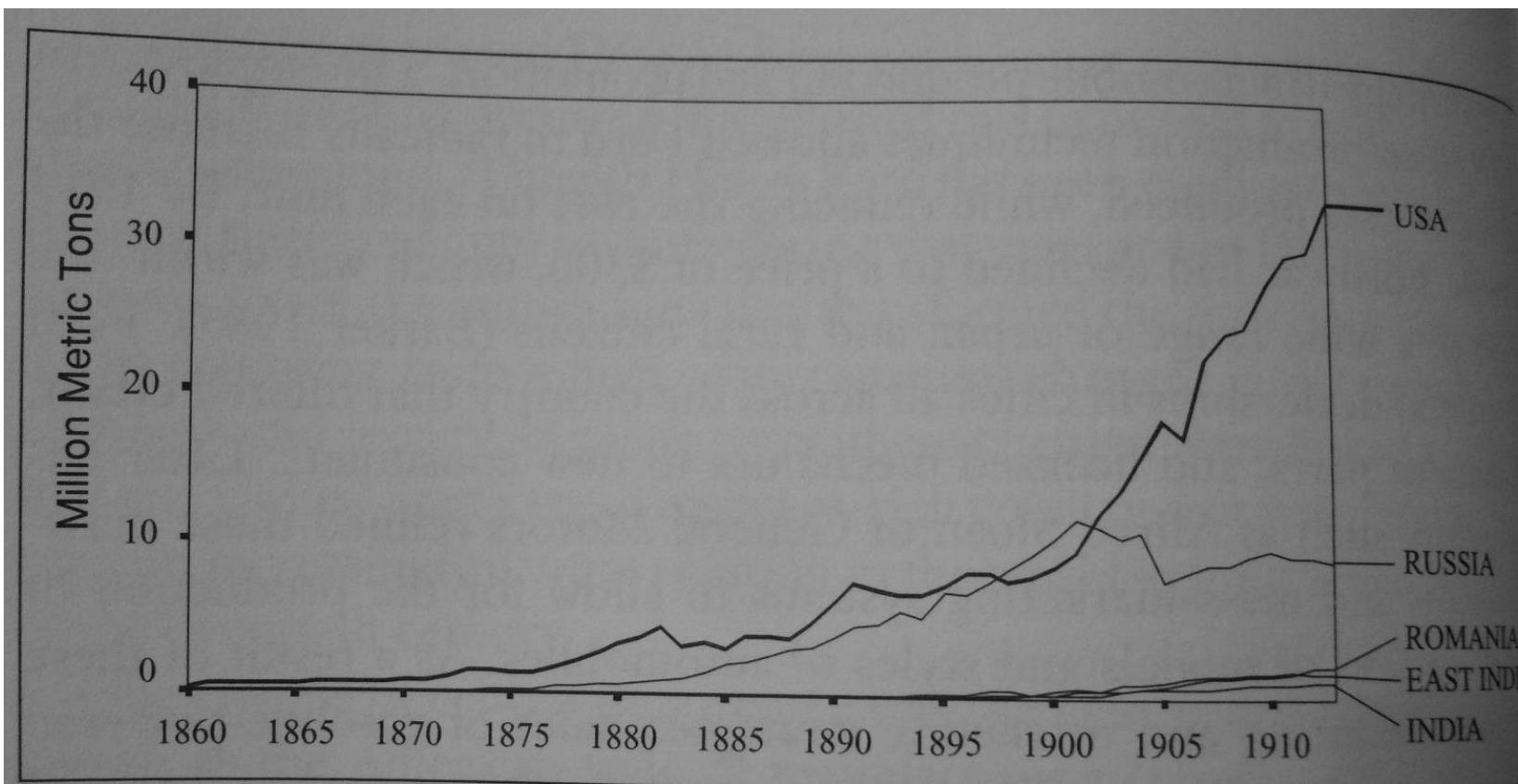


FIGURE 3.1. Five Largest Oil Producers, 1860–1913

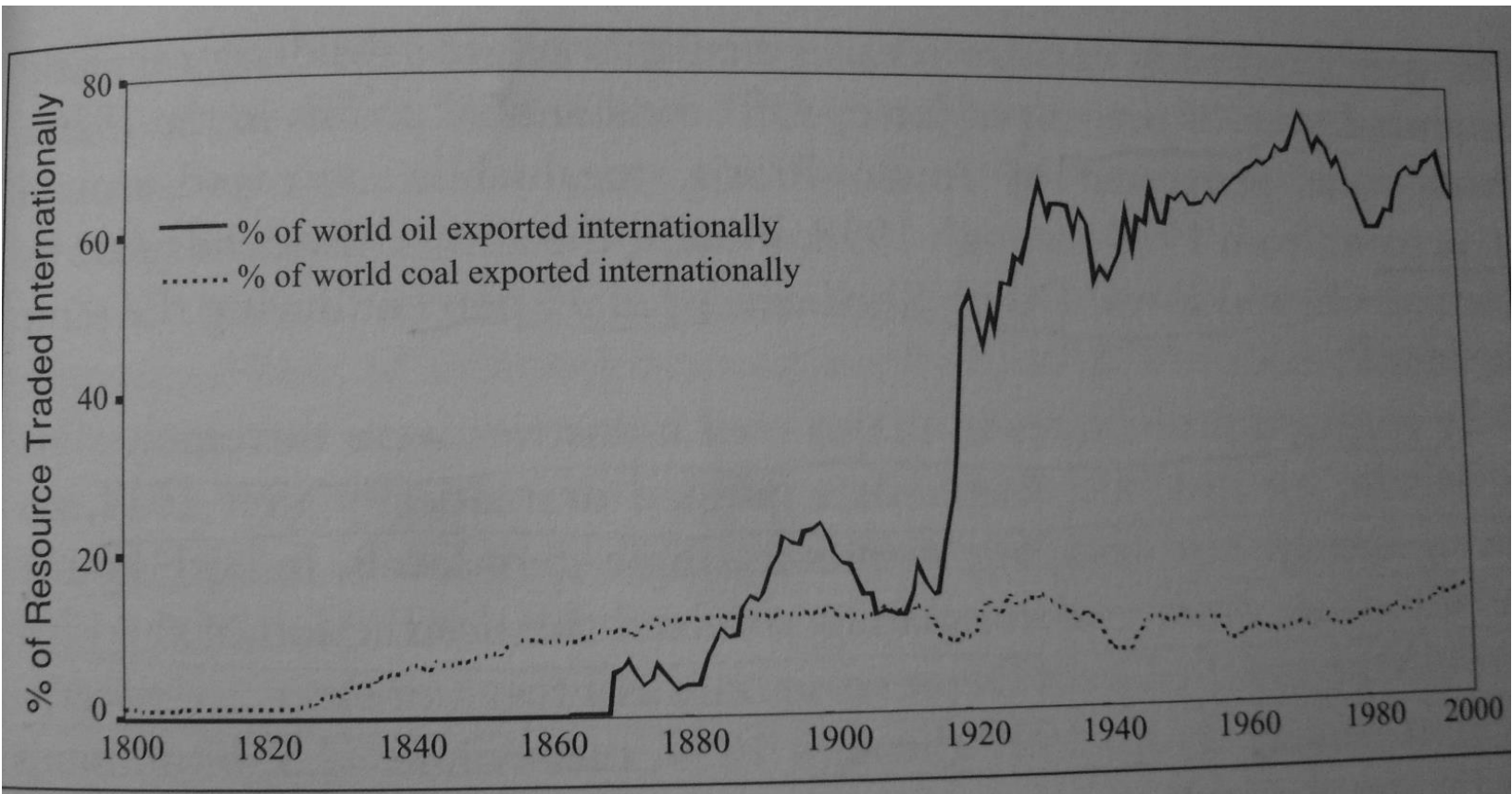
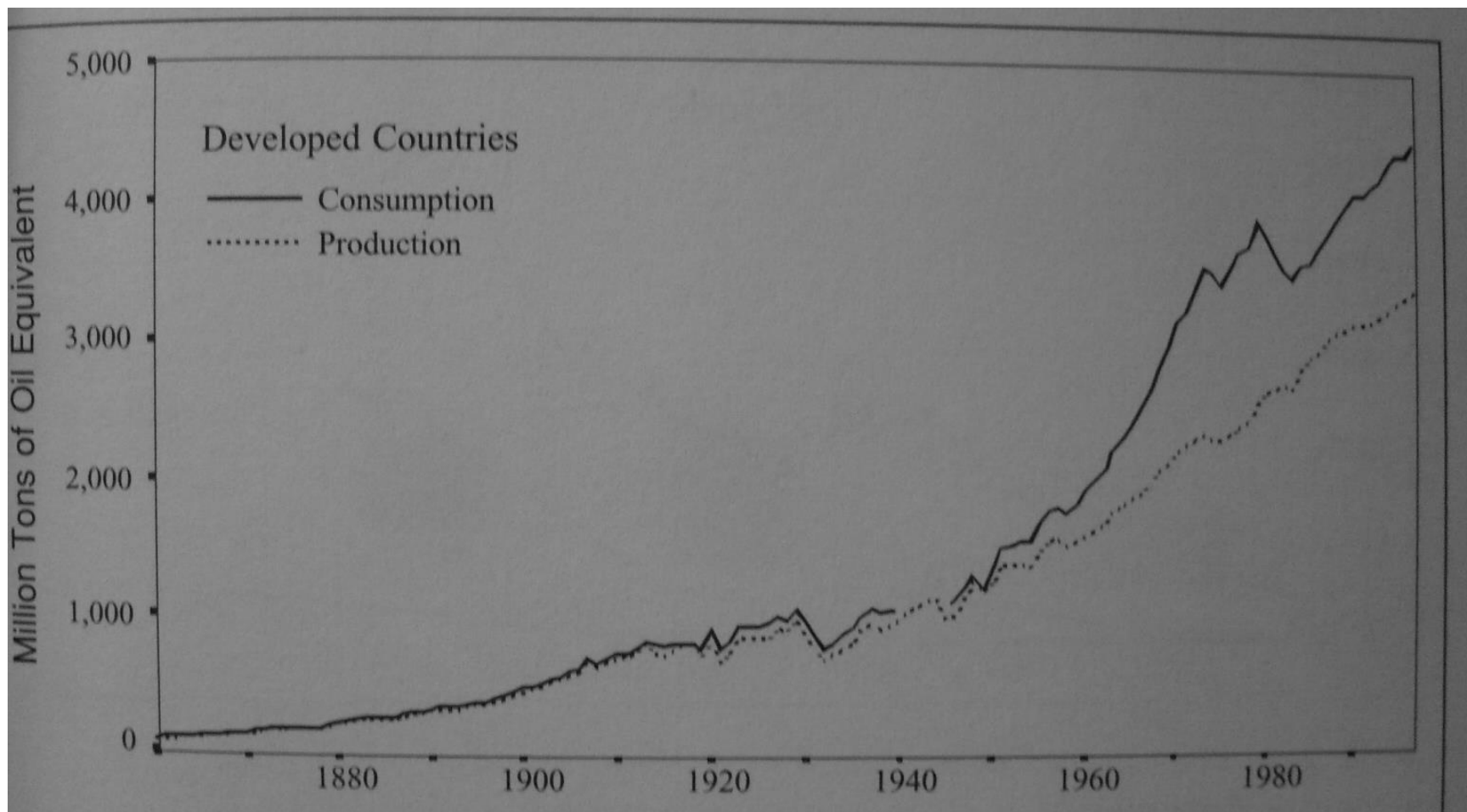
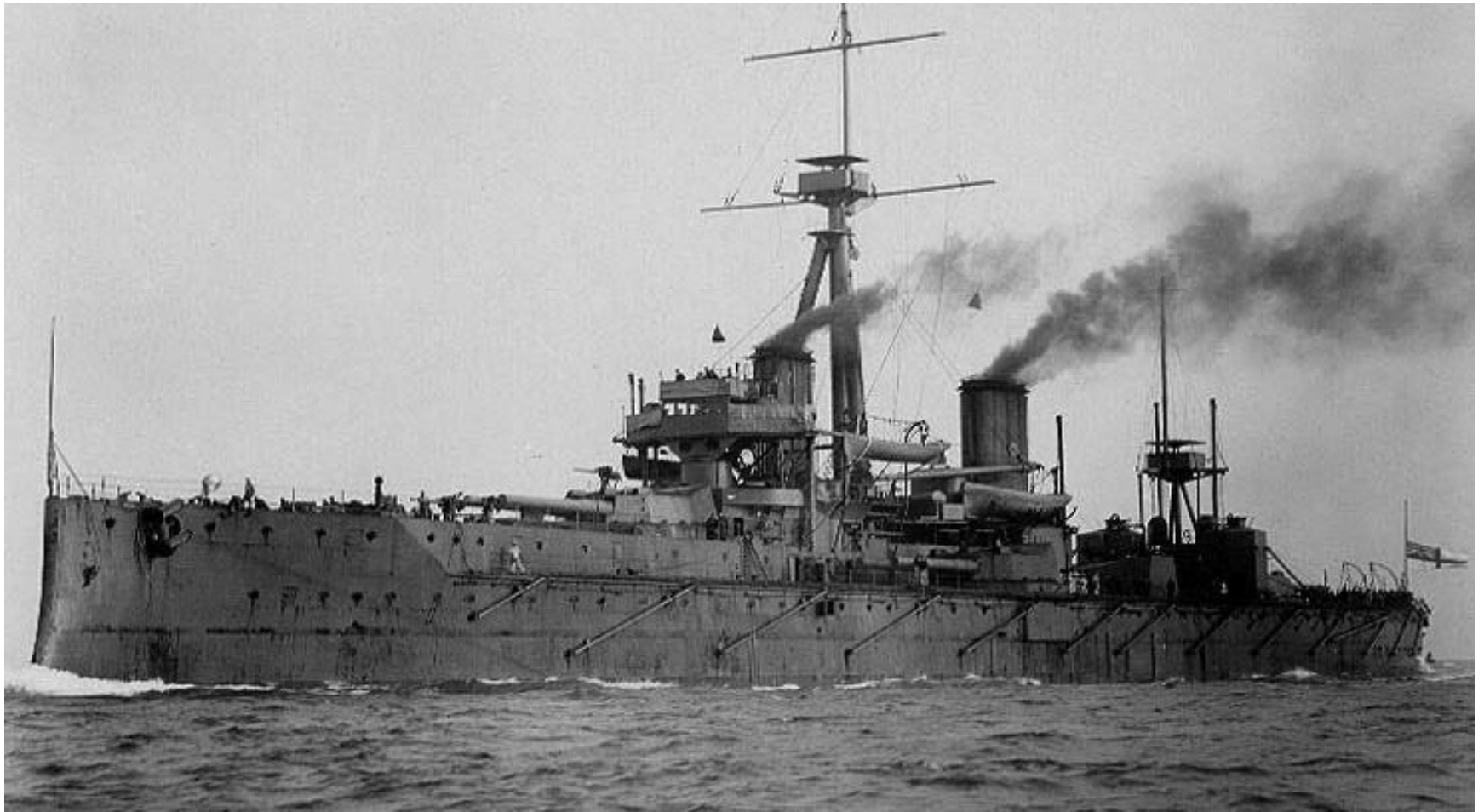


FIGURE 4.2. Export Ratios for Coal and Oil, 1800–2000



HMS Dreadnought 1906.



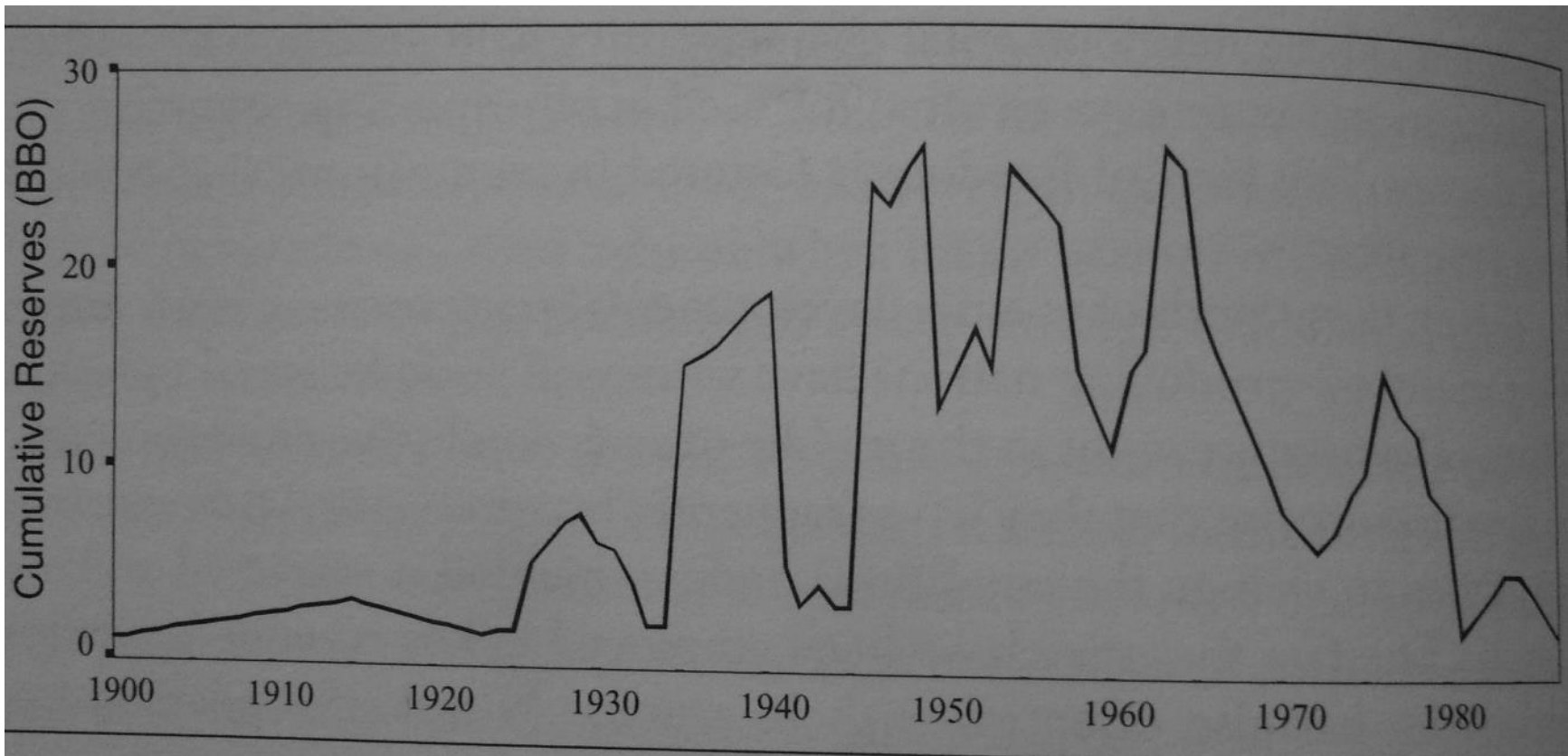
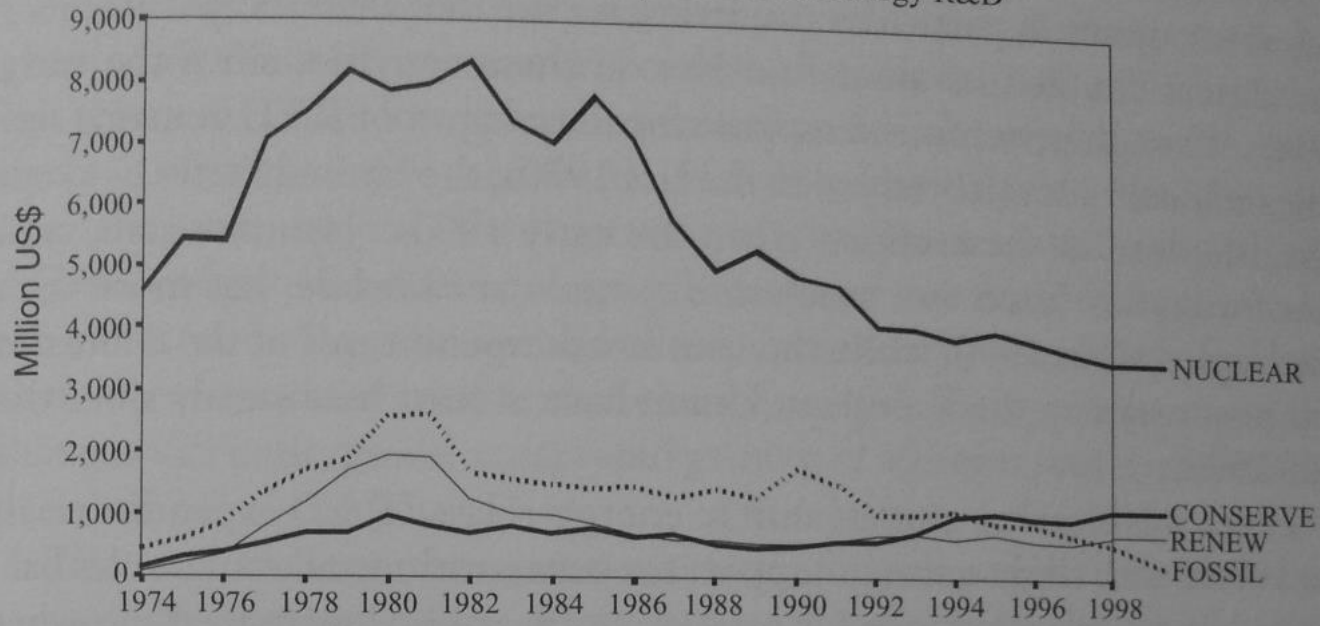
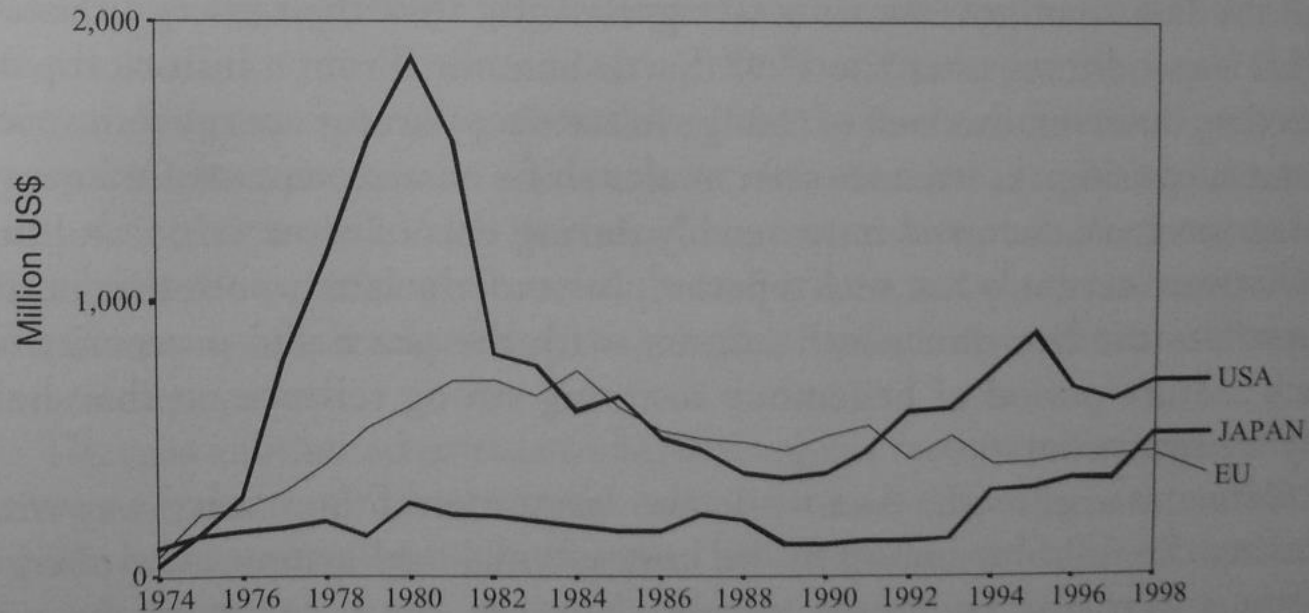


FIGURE 6.1. Discoveries of Oil Reserves, 1900–1988. 5-Year Moving Averages
 Sources: Campbell (1991); Campbell, H. & F. (1991)

IEA Member State Expenditures on Energy R&D



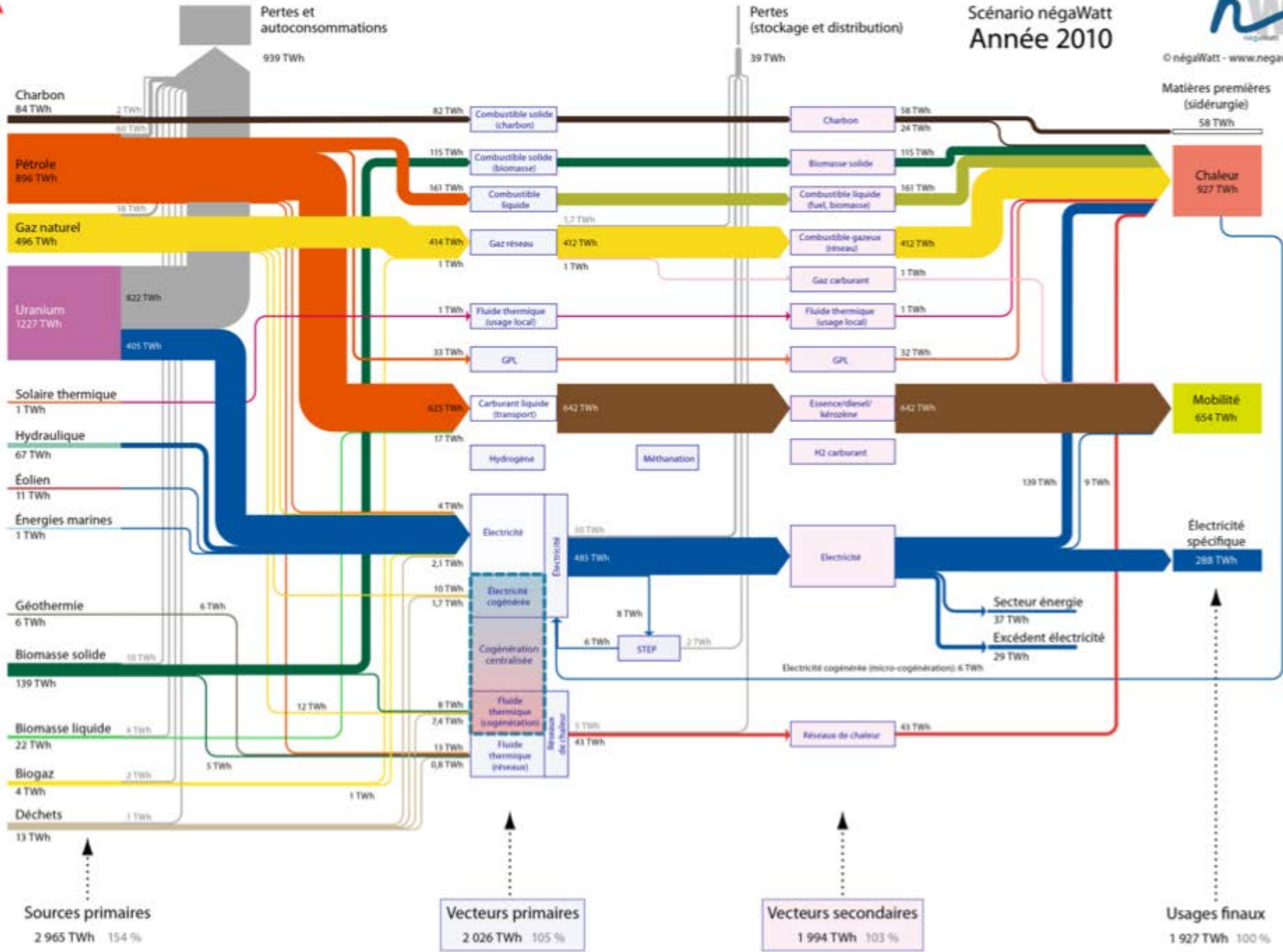
Expenditures on Conservation and Renewable R&D





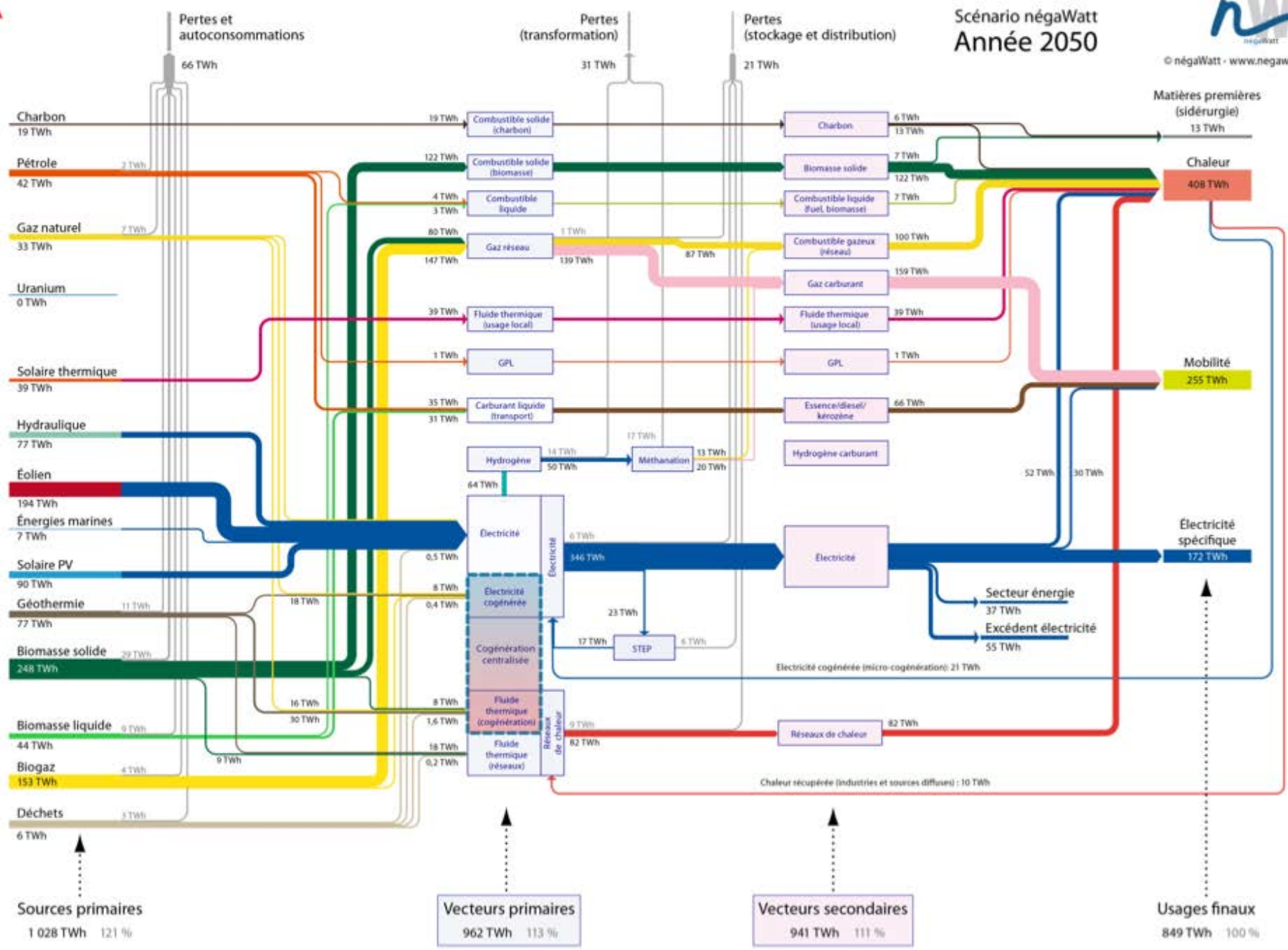
Scénario négaWatt Année 2010

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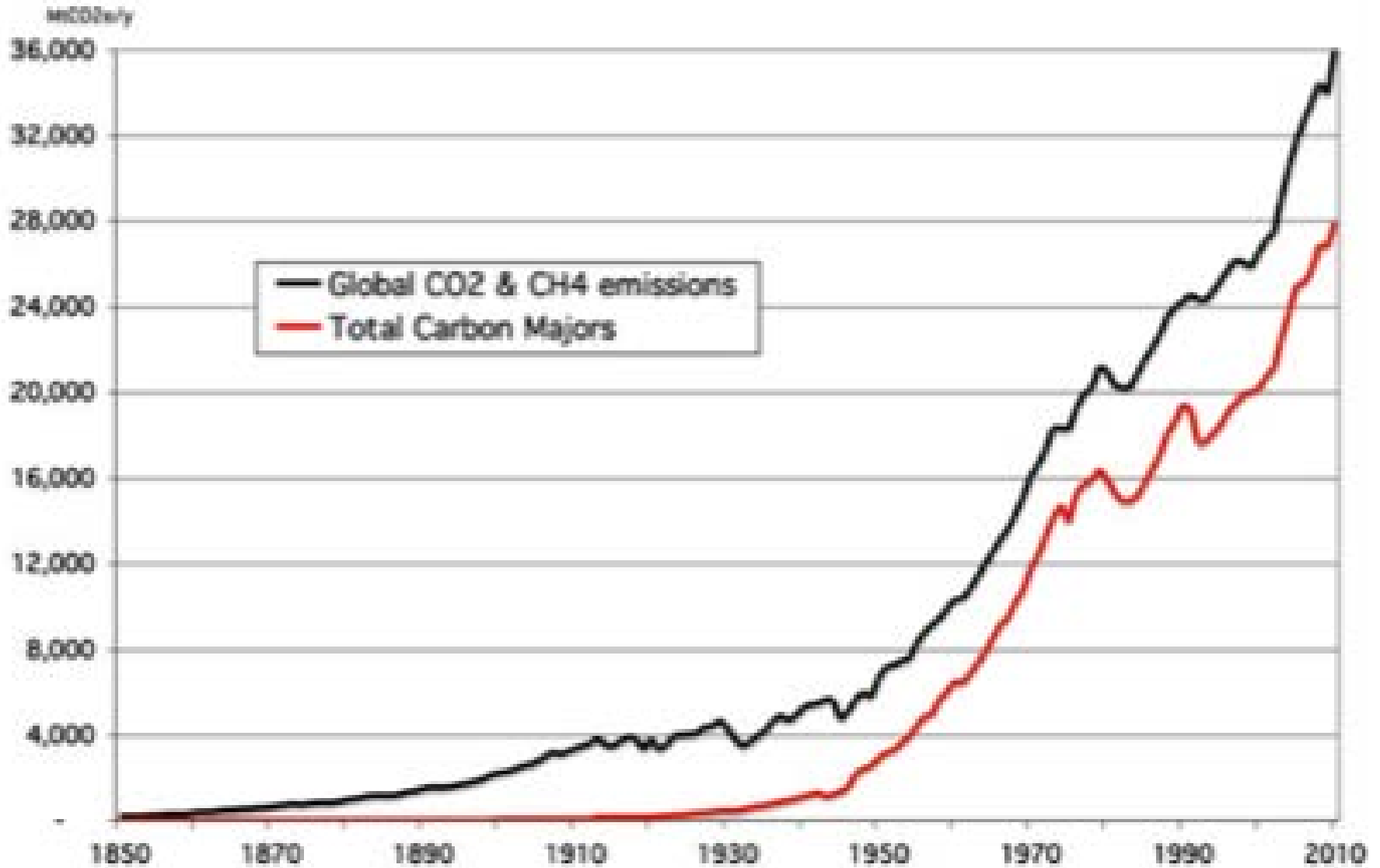


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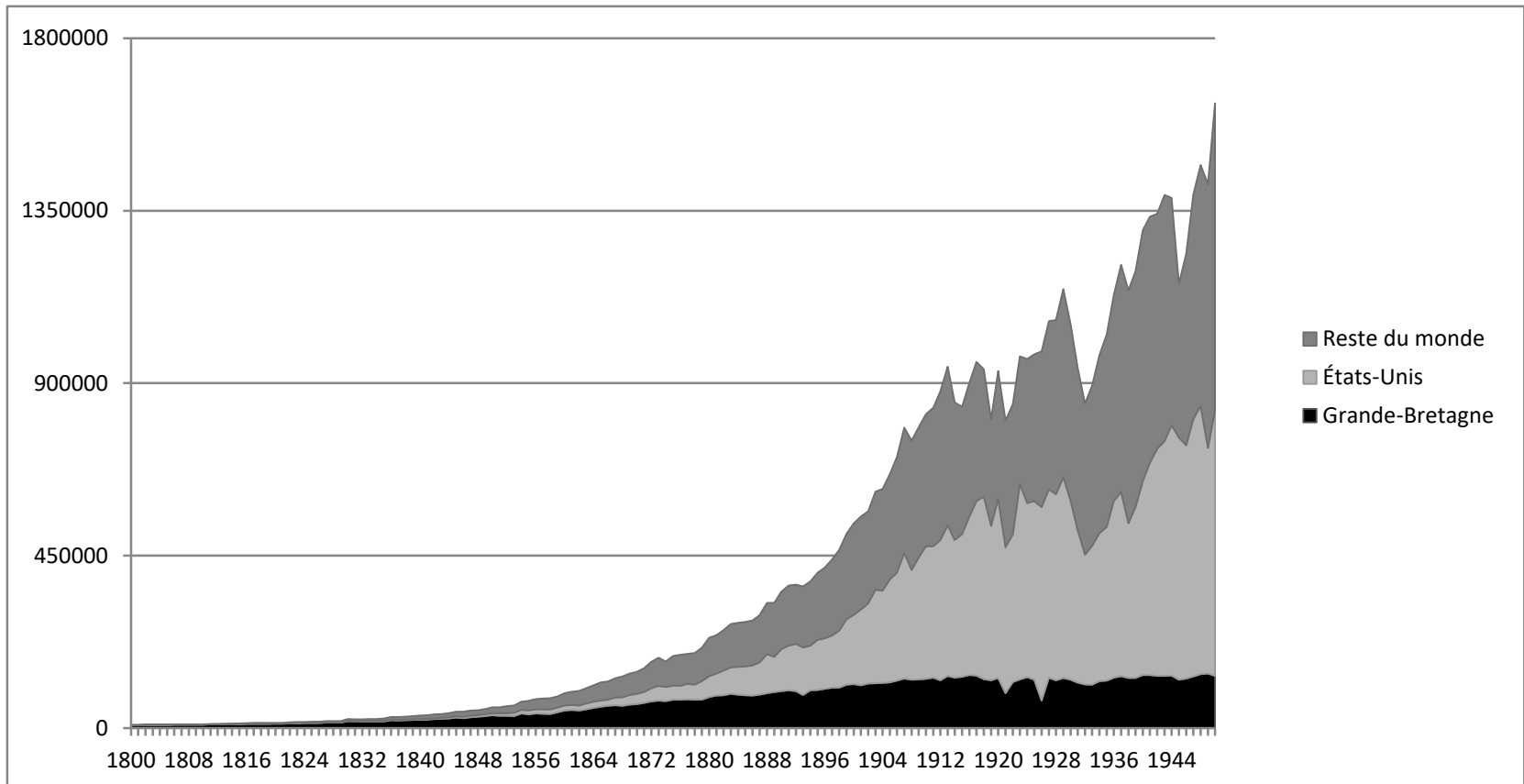
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62% des émissions cumulées = 90 carbon majors



L'anthropocène est un anglocène!



The Anthropocene is an “Anglocene”

Cumulative emissions since 1750

