These notes cover a colossal range of issues so, inevitably, there will be big gaps, inaccuracies and one-sidedness. It also only draws on material in the English language. Constructive feedback to correct oversights and other errors is very much welcome. Internet links have been used rather than conventional citations to make it easier for activists to access what hopefully will be useful follow-up material

1.	Title page
2.	Traditional meanings have been overwhelmingly apolitical.
3.	The Irish independence movement identified by the colour green since 1798 rebellion. The Levellers in 17 th century England used sea green as their colour, as at the pictured re-enactment. Coalitions of armed peasants opposing brutal requisitions by Bolshevik were sometimes called 'green' armies, though they were not formal armies and their politics if any were closest to the Socialist Revolutionaries (SRs)
4.	Leberecht Migge's 'Das Grüne Manifest' (Germany 1919) was possibly the first time a political manifesto used the word 'green' with its current connotations. But it was a few decades before such usage became common practice, really only 'taking off' in the 1980s. On Migge: see:
	https://www.jstor.org/stable/43324396?seq=1#page_scan_tab_contents; https://www.routledge.com/When-Modern-Was-Green-Life-and-Work-of-Landscape-Architect-Leberecht-Migge/Haney/p/book/9780415561396; http://www.hup.harvard.edu/catalog.php?isbn=9780884023883; Themes such as self-reliance, localism, horticulture recycling, renewable energy run through his work. Migge and his circle might be contrasted with the dominant ideologies of the time: newly born Communism to the East, growing fascism to the south with strong links to the Futurism and its cult of technological power (Italy) and the private enterprise based (limited) democracies to the west. In all cases, ordinary working people often lost out as power and wealth accrued to élites. Extremely violent police states were beginning in several places. The 'green shoots' evident before World War One (see later slides) and just after were, however, snuffed by both the war itself and the convulsions it set in motion afterwards.
5.	Die Grünen in Germany popularised the use of 'green'. The Ecology Party in England saw which way the wind was blowing and adopted the name Green Party in 1985, before which it had been known as People. Jonathon Porritt was chair of the Ecology Party 1979-1980, becoming director of Friends of the Earth in 1984. In that year his book 'Seeing Green' was published, helping to popularise green thinking. Caroline Lucas become the Green Party's first MP in 2010 holding the seat in Brighton in the next two General Elections. She was the first formal leader of the party, holding the post 2008-2012.

6. Many parties have now joined the roster of Green parties, a few still sticking to the name of ecology.

The founding conference of **Die Grünen** in Germany took place in 1980, though there were many local initiatives and green networks before then. In 1971, the Popular Movement for the Environment was founded in Neuchâtel in Switzerland. The first *national* party with what later would be called a green agenda was the Values Party founded in New Zealand in 1972. The first Green to be elected was Helen Smith in 1973 winning a seat on the Porirua City Council (New Zealand). The first election of a green MP to a national parliament happened in Switzerland in 1979. Greens first entered a national cabinet in 1995 (Finland).

It might be noted that ecology was only one of the 'four pillars' of Die Grünen, perhaps sowing the seeds subsequent confusion and indeed splits over what exactly 'green' meant. The four are often expressed as Ecological wisdom (or 'sustainability'), Social justice, Grassroots democracy, and Nonviolence. 'Social justice' might, for example, might mean trying to give everyone on Earth a typical American level of consumption. That would indeed be fair but it would lead only to the equality of the grave since the Earth could never sustain the necessary level of economic activity to deliver the requisite level of production. 'Sustainability' also begs many questions, not least the issue of what is being sustained and why. It might just be taken to mean the sustained yield of one particular commodity, achieved at the expense of, say, other non-human forms of life (as in most commercial forestry, for example). The concept of sustainable development rationalised further human take-over of the Earth and its resources, often to very deleterious effect. See:

https://www.routledge.com/Demystifying-Sustainability-Towards-Real-Solutions-1st-Edition/Washington/p/book/9781138812697 'Non-violence' might mean tying the hands of law enforcement officers trying to stop armed poachers.

7. **Greening of America** by **Charles Reich**.

In the 60s, there were broad social and cultural movements that challenged the "prevailing order" or what they saw as the 'Establishment'. But many had little to do with any politics of the sustainable common good. A revealing example is the character of Arthur Seaton in the British New Wave film 'Saturday Night and Sunday Morning'. He is working class and certainly hates the bosses. He has no time for tradition. Yet he is also utterly apolitical and deeply selfish, determined to 'do his own thing' and sod everyone else.

Indeed, the whole 60s permissive counter-culture, which Charles Reich's book celebrates, seamlessly fed into economic libertarianism (look at the careers of *Oz* editor Felix Dennis and 'yippie' Jerry Rubin). Critic Tom Wolfe was one of the first to identity the main legacy of 60s libertarianism as a development he christened the 'Me Decade' (http://nymag.com/news/features/45938/). Later, historian Christopher Lasch traced its links to what he called the 'culture of narcissism' (http://thezeitgeistmovement.se/files/Lasch_Christopher_The_Culture_of_Narcissism.pdf), others 'Generation Me' (http://www.jeantwenge.com/generation-me-book-by-dr-jean-twenge/). Others have linked it to the growth of a 'therapy culture' (illustrated in the films of Woody Allen, for example) or the 'Peter Pan syndrome (try:

https://www.theguardian.com/books/2010/feb/21/the-age-of-absurdity-foley). It has also given rise to an 'identity politics' in which one's own personal 'badge' becomes paramount, with scant attention to the collective interest. To some extent this can even be seen within the Green Party where certain individuals and groups push their own 'grievances', real or imaginary, as priority issues (for a critical study from a non-green perspective, see https://us.macmillan.com/books/9780312098827. See also: https://www.nytimes.com/2016/11/20/opinion/sunday/the-end-of-identity-liberalism.html and https://www.theguardian.com/society/2018/mar/01/how-americas-identity-politics-went-from-inclusion-to-division

8. Taoism and Lao Tzu c 500 BC.

This could be said to be the first coherent body of thought that sought to harmonise human living with the 'way', those patterns, rhythms, flows and cycles that characterise life on Earth. Compare with consumerism, technocratic hubris, and anthropocentrism as well as 'alternative' political theories such as Marxism that see 'contradictions' as driving force, eg class struggle, as motive force of history. See

http://www.hup.harvard.edu/catalog.php?isbn=9780945454304;

https://www.researchgate.net/publication/234759823_Taoism_and_Deep_Ecology;

There is much discussion of related ideas in, as the title might suggest, 'The Way' by Edward Goldsmith (https://philpapers.org/rec/GOLTWA-2)
There is an extensive bibliography here: http://fore.yale.edu/files/daoism.pdf

Examples of ying/yang dynamic balance: abiotic/biotic, humans/non-human species, balance of giving/taking in all interactions, living/dying, emigration/immigration, body/mind, external event/internal emotion, relaxation/activity, physical/mental activity, preventive/curative, rich/poor, one region/other regions, employees/employers, legislators/executive, leaders/'led', non-representation/'direct democracy', no technology/'brute force' technology, economic expansion/contraction... As in the ying/yang diagram, the middle line is not straight. It varies according to circumstance and the nature of the activity.

Thus a 'steady-state economy' is not static but dynamic with some bits still growing if so desired but balanced by degrowth elsewhere, the total economy with the boundaries of a finite planet, with a balanced mix of planning and (regulated)markets and with an equally balanced mix of private enterprises, non-profit businesses and public bodies, none 'too big to fail'.

9. Epicurus, St Francis of Assisi and Ibn Khaldun

Epicurus (341-270) was a Greek philosopher who clearly enunciated the conservation principles that make a nonsense of the still widely held delusion that we can get more from less, or, that technology will create resources out of thin air or make wastes magically disappear. Back in the 5th century BC., for example, Herodotus observes that "man stalks across the landscape and deserts follow in his footsteps". Not long after, Plato had bemoaned the tide of human destructiveness.

St Francis of Assisi of 12th century anticipated the rise of a sensibility that showed greater respect for other lifeforms. See: https://www.earthday.org/2016/10/06/patron-saint-animals-ecology/

Ibn Khaldun, Berber scholar of 14th century, warned of population growth. See: http://3lh07xhlls346a7ggo9psa1d-wpengine.netdna-ssl.com/wp-content/uploads/2010/05/Paul-Ehrlich-Demogrphy-Policy-Outsider-2008.pdf

10. **Primal Peoples**

Beware the nonsense about noble savage and 'primitive communism' (Rousseau etc)! Many North American tribes, for example, kept slaves and some practiced very cruel tortures. There are many controversies in this field eg

https://kk.org/mt-files/reCCearch-mt/kaplan-darker.pdf and https://books.wwnorton.com/books/detail.aspx?id=6874

In a sense we need a whole new culture, elements of which will be unprecedented. In any case, we cannot go 'back', only forward.

Yet such peoples can still teach us some positive lessons eg taking only what you need and making maximum use of it (eg the buffalo culture of Prairies or the salmon/cedar culture of NW Pacific Rim of North America). Respect for rest of nature was quite common amongst many tribal peoples along with deep knowledge of their environments and their limits. Ancient architecture was often better attuned to local climates and topography than more modern descendants eg https://www.press.uchicago.edu/ucp/books/book/chicago/A/bo3641441.html

See, more generally:

https://libcom.org/files/Sahlins%20-%20Stone%20Age%20Economics.pdf; https://www.localfutures.org/store/#!/Ancient-Futures-2016-edition/p/65807088/category=12119219;

 $https://books.google.co.uk/books?id=HpFlwSxBML0C\&printsec=frontcover\&dq=\%22God+ls+Red\%22\&source=bl\&ots=StHhfpKXYf\&sig=Bf1Jafa_P2\\Mja3n1eqGNMH7A0tM\&hl=en\&ei=syZ9TNaSBJO4sAOEyu2CBw\&sa=X\&oi=book_result\&ct=result\&redir_esc=y\#v=onepage\&q\&f=false;\\https://heydaybooks.com/book/the-ohlone-way-indian-life-in/$

There is useful discussion in Edward Goldsmith's 'The Way' but it must be balanced against more critical assessment of pre-agricultural and pre-industrial peoples eg

https://global.oup.com/.../war-before-civilization-9780195119...& https://kk.org/mt-files/reCCearch-mt/kaplan-darker.pdf

A society based on the sustainable common good will be a new civilisation, many of its features innovations not revivals of the past.

11. Green thinking also reflects some elements of 'folk wisdom' eg

Look before you leap: precautionary principle? Make do and mend: reuse, repair and recycle

Waste not...: ditto

Haste makes waste: entropy? Lack of caution

If it ain't broke...: don't meddle or change for no good reason: conserve

Bird in the hand...: protect what you've got and do not gamble on more: 'enoughness', not moreness

Too much of a good thing...: limits to growth apply to everything; the maximum is the enemy of the optimum; call a halt while the going is good **Don't put all your eggs in one basket**: Diversity; no to risky monocultures (and not just in farming)

Don't count your chickens before they hatch: be realistic about what is sustainably viable, beware unintended consequences, you can't always get what you want

You can't make an omelette...: Questionable! Such sentiments have often been used to excuses horrors of Stalinism in particular, ie look what the Stalinist terror nevertheless created. Yet, in reality the 'meal' it created was quite rancid and many 'achievements' turned out to be false or fragile. A good case study is the disastrous White Sea canal.

See also: https://www.penguin.co.uk/books/103/1038805/the-great-terror/9781847925688.html; https://www.anneapplebaum.com/book/red-famine-stalins-war-on-ukraine/; https://www.foreignaffairs.com/reviews/capsule-review/1993-09-01/troubled-lands-legacy-soviet-environmental-destruction

For Mao's especially malodorant 'omelette' see: http://www.frankdikotter.com/books/maos-great-famine/ and https://www.theguardian.com/books/2005/jun/04/featuresreviews.guardianreview10

It is a telling reflection of the politics of the 'radical Left' that there was so much widespread belief in the thoughts and actions of Chairman Mao and his ilk.

For a case study: https://chinachannel.org/2017/12/13/fellow-travellers-tale/ More generally: https://yalebooks.co.uk/display.asp?k=9780300038750

12. More branches of green family tree

Top row

Gilbert White: https://academic.oup.com/isle/article/24/3/432/4036209; http://www.gutenberg.org/ebooks/1408;

Thomas Malthus: https://www.econlib.org/library/Columns/Teachers/defendmalthus.html; https://www.youtube.com/watch?v=xe2gLSqismk; https://sandyirvineblog.wordpress.com/2016/05/19/populaton-issues-malthus/

Common to some perceptions, Malthus was not an ogre. His key insight was that humans are still subject to environmental limits like all other species, despite their far greater capacity to manipulate environmental systems. They might be able for a time to put off the 'evil day' buy at some time their numbers and appetites must match what the Earth can sustain or face terrible decline and then extinction. Of course, when he was writing, the 'New Worlds' of the Americas and Australasia were just being tapped. Now there are no new worlds but human numbers continue to expand. Many people confuse a relative slowing of a growth rate with an absolute reduction. Temporary reductions can also prove to be blips especially when there are pro-natalist policies pushing for a higher birth rate and while people live longer, adding more people at the 'other end'. Henry Thoreau: http://thoreau.library.ucsb.edu/thoreau walden.html .

See also: https://www.dw.com/en/why-thinker-henry-david-thoreau-remains-more-relevant-than-ever/a-39631385 and https://www.walden.org/education/for-students/myths-and-misconceptions/

Common to some perceptions, Thoreau was *not* a recluse.

William Wordsworth: https://www.palgrave.com/gp/book/9780230105614; http://www.umass.edu/umpress/title/wordsworth-and-green-romantics; https://mary-

shelley.fandom.com/wiki/Romantic_Ecology:_Wordsworth_and_the_Environmental_Tradition_by_Jonathan_Bate_(1991)

It ought to be noted that some Romantics did rather celebrate the power of the new steam engines and the coming of the railways.

Bottom Row

Rosalie Edge: https://www.biography.com/news/rosalie-edge-biography-facts & https://www.audubon.org/news/getting-over-rosalie

 $\textbf{Marjory Stoneman Douglas: } https://www.womenofthehall.org/inductee/marjory-stoneman-douglas/\ \& line with the state of the property of th$

https://www.everglades.org/about_marjory

Margaret Murie: Murie has been called "the grandmother of the conservation movement". See https://www.wilderness.net/nwps/murie and, if you like John Denver, https://blogs.ntu.edu.sg/hp331-2014-58/?page_id=56

Caroline Crane: Crane showed that the alleged dichotomy between environmental protection and social justice is a false one:

https://www.jstor.org/stable/27700315?seq=1#page_scan_tab_contents

13. Further branches of the Green family tree

Women often played a critical role in building 'green' organisations in this earlier period. Examples include the Royal Society for the Protection of Birds (including the Murderous Millinery campaign: see later), the National Trust and the Soil Association.

Left: Octavia Hill (1838-1912)

Confounding the stereotype that Greens are middle class people just interested in aesthetically pleasing places and the like, Hill grew up in difficult circumstances due to the bankruptcy of her father's business. She was a strong social reformer, especially in the field of housing reform. She was very much a pioneer of what today is called 'social housing'. But she also recognised the benefits for poor people living in overcrowded and polluted environments of access to fresh air and green spaces. Modern research has confirmed her views about the health benefits provided by verdant environments.

It led her to be one of the three founders of the National Trust. Its image today might be a rather twee one but its roots lie in a recognition that environmental conservation and a fairer society could and should be twin tracks. It was about saving historic sites and beautiful places for collective well-being, not just for the few. Thus, she envisaged 'green belts' and fought to protect open spaces such as Hampstead Heath from the development juggernaut.

https://historyofsocialwork.org/eng/details.php?cps=3

https://www.octavia.org.uk/our roots/octavia hill

https://anglotopia.net/british-identity/ever-everyone-brief-history-national-trust/

Right: Eve Balfour (1898-1990

Keen to become a farmer from an early age, she studied agriculture and, with her sister, acquired a farm in Suffolk where trials were launched to compare 'organic' methods with chemical-intensive practices such as artificial fertilisers and biocides. Her book 'The Living Soil' showed that soils are not just so much 'dirt' to be used and abused as was becoming the dominant practice. Rather they are living systems, the foundation for the sustainable production of healthy foods. In 1946, she co-founded the Soil Association and became its first president.

However agriculture was to be driven down an unsustainable road, focusing on maximising short-term yields. She also anticipated the issue of 'food miles, arguing that it was more sustainable to source food more locally. Some ill-informed or malicious commentators try to link organic farming to Nazi veneration of the blood and soil so it might be worth noting that Balfour provided shelter from Jewish refugees fleeing from Nazism.

http://www.ladyevebalfour.org

https://www.soilassociation.org/who-we-are/our-history/lady-eve/

14. Some struggles that pre-echoed today's green concerns

Battles over **local forests** — ownership, access & use — anticipated many modern struggles over not just woodland but also other specific resources such as fisheries, rivers and aquifers as well as 'open access' systems such as the atmosphere. Local people often resisted the shift to 'efficient' timber production under the control of distant interests with their exclusion from lands to which they had traditionally had access eg in Jura Mountains and in Pyrenees. As imperialism got its claws into forests in such as the Himalayas, resistance grew there.

Machine breaking in early industrialising countries such as England, Belgium and France posed the issue of technological innovations, its control and use, not least regarding winners and losers. Opposition to machine-based manufacturing was driven not just by fears over job security but also the likely decline in quality of finished goods (cf artisan production) and disruption of family life by very long hours and shift working in the 'dark satanic mills.' Often other members of the local community supported them even though not directly or immediately affected by the new machines such as were the resentments at the break-up of local society.

Movements such as the Chartists were often driven by a 'radical nostalgia' that rued the loss of what was, rightly or wrongly, remembered as a green and pleasant land where ordinary people had, in a few ways at least, more freedom. The newspaper 'The Northern Star' often published letters and poems to that effect by working class people. Now and again there were fierce clashes over pollution as in Spain in 1888, protests met with violent responses form the authorities.

Transport was another bone of contention with much resistance to the destruction and dislocation caused by railway construction. Later cyclists argued that cars should be kept off the roads they had done so much to improve, ironically opening the door to mass motoring as cars became cheaper.

Access to open countryside was another issue as in the mass trespasses of Kinder Scout. A leading figure was the Communist worker Benny Rothman whose concerns also covered issues such as food quality. His son, Harry was a pioneering writer on the threat from pollution 'Murderous Providence).

Opposition to imperialist wars such as the Boer War was another strand that fed into modern green thinking.

- 15. Of particular interest is the struggle in the 1730s of the Bishnoi community against the cutting down of khejri trees, among others, by the king's men. They laid down their lives in their attempts to stop the desecration of their environment. It gives the lie to the tired claim that people are only interested in the environment for immediate and economic reasons. See:
 - https://feminisminindia.com/2020/09/11/when-amrita-devi-and-362-bishnois-sacrificed-their-lives-for-the-khejri-tree/ and https://womensearthalliance.org/wea-voices/the-original-tree-huggers-let-us-not-forget-their-sacrifice-on-earth-day/
- 16. Other initiatives in 19th & early 20th century with greenish elements

Cycling (first three were often linked to the Clarion newspaper and helped to create and sustain a mass base for the new Labour Party.

Choirs and **Camping**

Intentional Communities:

New Lanark and New Harmony etc. Many were religiously inspired. But elements of Amish living, for example, display some green dimensions eg sustainable farming and, generally, 'living lightly' (cf typical North American lifestyle)

The history of such communities is not a really happy one. Often, there were fierce internal conflicts. But often the bigger problem was survival in a world that had different values, priorities and goals.

17. Some more pre-echoes

Samuel Butler: https://interestingliterature.com/2018/02/samuel-butlers-erewhon-dystopia-before-dystopia/

Edward Carpenter: https://www.open.ac.uk/researchprojects/makingbritain/content/edward-carpenter

On other 'arts and crafts' and 'back to nature' socialists of the 19th century, including William Morris, see Peter Gould's 'Early Green Politics' (Harvester Press, 1988) with a review here: <a href="https://www.cambridge.org/core/journals/albion/article/abs/peter-c-gould-early-green-politics-back-to-nature-back-to-the-land-and-socialism-in-britain-18001900-new-york-st-martins-press-1988-pp-x-225-

3995/3FC7C5D4A38C129D60F1F2BDE31ABA75

'Le Sauvage': https://en.wikipedia.org/wiki/Émile Gravelle (see also: https://www.versobooks.com/books/2388-the-shock-of-the-anthropocene

Gandhi: https://www.mkgandhi.org/articles/green future.htm

Paul Sarasin: https://en.wikipedia.org/wiki/Paul Sarasin

Wandervogel: https://www.thelocal.de/20180912/get-back-to-nature-and-embrace-the-wilderness-like-the-germans/

Woodcut: 'The Outsider' by Louis Moreau, 1922: https://www.libertarian-labyrinth.org/louis-moreau/louis-moreau-1883-1958/

18. Green thinking has tapped many movements

Ecofeminism:

A critical insight concern the links between patriarchy, with men dominating women, and human supremacism, with humans collectively dominating the rest of nature. Many ecofeminists have also spotlighted an aggressive male machismo in the technological fundamentalism one encounters in many quarters. Similarly, non-human species can be seen as mere things, there to be herded into factory farms, hunted for sport, treated as objects for entertainment, vivisected, and so forth: very much 'lower class' members of the ecological community, just as women have been routinely treated as the 'second sex' with human society.

https://www.cambridge.org/core/books/controversies-in-environmental-sociology/gender-ecofeminism-and-the-environment/D926B38DE34696DCDECBD941A4705EA6;

https://philpapers.org/rec/WAREF; http://www.dailycal.org/2018/04/22/carolyn-merchant-uc-berkeley-ecofeminism/

Religion and green thought

eg http://fore.yale.edu; http://www.brontaylor.com/environmental_books/ERN/EncyclopediaRN.html Note: http://science.sciencemag.org/content/155/3767/1203 and http://churchandstate.org.uk

There are of course tensions eg between Amish farming practices (far more sustainable than most agriculture in USA) and generally frugal lifestyles compared to the American norm, on the one hand, and, on the other, their pro-natalism with very unsustainable birth rates.

19. Green thinking has also tapped parts of the 'older' political spectrum In order of appearance

Gerrard Winstanley, 1609-1676 ('True Leveller'): https://www.history.ac.uk/reviews/review/1043 & https://monthlyreview.org/2013/12/01/winstanleys-ecology/

Karl Marx (1818-1883), revolutionary polymath. Views will be divided. There is a veritable cottage industry toiling away in the mountain of Marx's voluminous and very varied writings to dig up scraps of evidence to show he was ecologically minded eg https://monthlyreview.org/product/marxs ecology/.

Perhaps Marx's thoughts on alienation are the most fruitful for Greens though he certainly captured the all-consuming hunger for growth characteristic of capitalist enterprise. However, one might argue that odd insight into, say, mounting problems of soil fertility does not constitute a theory of ecological sustainability. The problem of agriculture per se go far deeper than 'capitalist farming.' For a body of thought that claims to be 'scientific', integration of sciences such as geology, thermodynamics and ecology is conspicuous for its absence. Thus, the so-called 'labour theory of value' is very different to an ecological one.

The notion of 'contradiction' sits uncomfortably with that of 'complementary opposites Green thought has inherited from Taoism. Historical Materialism is a poor explanation of history, failing to explain many aspects of human behaviour, let alone the roles of contingency, cock-ups and so forth in the march of events. Much of Marx's work is an aggressive paean to human expansionism and technological domination of the rest of nature. His cornucopianism sits uncomfortably with the limits to growth perspective. Most Marxists have been militant population deniers eg https://www.jstor.org/stable/2808091?seq=1#page_scan_tab_contents.

Here is a useful review of the strengths and weakness of the Marxist tradition

http://www.sunypress.edu/p-1386-environmentalism-and-political-.aspx and

https://www.zedbooks.net/shop/book/eco-socialism-or-eco-capitalism/ . See also:

https://www.jstor.org/stable/26161730?seq=1#page_scan_tab_contents

Of all Marxists in the first few decades after Marx's death, the Polish-German revolutionary **Rosa Luxemburg** (1871-1919) seems to have been most attuned to non-human nature as well as an astute critic of sexism in the socialist movement eg

http://www.historicalmaterialism.org/blog/rosa-reloaded-rosa-luxemburg-and-our-civilisational-crisis.

It is revealing that, at the time, a strong current in the Second International supported 'socialist colonialism', to bring the alleged benefits of mass industrialisation to 'backward' people (to be fair, it condemned the 'actually existing' imperialism of its time). Its much proclaimed internationalism was to be swept away in 1914 as socialist parties by and large rallied to their respective national governments (as did large sections of other radical movements, such as the Suffragettes). See:

https://platypus1917.org/wp-content/uploads/2015/12/James_Joll_The_Second_International_1889-1914.pdf and https://encyclopedia.1914-1918-online.net/article/suffragettes

Most strains of socialism, from Saint Simon, Etienne Cabet, Ferdinand Lassalle, Edward Bellamy, and H. G. Wells onwards have been 'productivist' and anthropocentric, primarily condemning capitalism because it was wasteful and inefficient rather than recognizing that all forms of growth must become ecologically unsustainable and socially corrosive. The problem was just maldistribution, not 'malproduction'. Scarcity was seen as purely a social construct. It was further assumed that the problem with any given technology was its ownership and misuse rather than any inherent qualities (eg drawbacks of nuclear power). A good example of the 'cornucopianism' inherent in most of the 57 varieties of socialism is Robert Tressell's novel 'The Ragged Trousered Philanthropists' which describes a future in which there will be warehouses stuffed full of all sorts of goods from which (an unlimited number of) people will take for free as much as they like.

Alfred Russel Wallace (1823-1913) raised the issue of land reform and was first president of the Land Nationalisation Society. Anticipating some aspects of the anti-globalisation movement, he attacked the effects of so-called free trade on the working classes as well as denouncing militarism. At the same time, he developed the concept of biogeography, a perspective that was to inform today's bioregional movement, a core element of the green vision of a sustainable society. Wallace also singled out the threats from soil erosion and deforestation. His spiritualism was not unusual for his time. See:

https://www.researchgate.net/publication/231914218 Alfred Russel Wallace societal planning and environmental agenda

John Stuart Mill (1806-1873). In 1848, Mill was one of the first explicit advocates of a 'steady-state economy': https://umaine.edu/soe/wp-content/uploads/sites/199/2013/01/Economics-Steady-State.pdf .

It is interesting to contrast his essay against the contemporaneous 'Communist Manifesto' by Marx and Engels.

William Stanley Jevons (1835-1882) is perhaps best known for his role in developing the theory of marginal utility in market economics. But he made two very much useful contributions to green thought: the 'rebound effect' and the dilemma of efficiency gains eg https://www.newyorker.com/magazine/2010/12/20/the-efficiency-dilemma

See also: https://www.alternet.org/2013/06/efficiency-sustains- broken-system/.

His study of the 'coal question' similarly anticipates the core green perspective of the finitude of resources and consequent physical limits to growth.

Adam Smith (1723-1790): The Scottish economist and philosopher is often seen as the father of market fundamentalism. It is indeed true that *sometimes* the price mechanism can be a simple and fast tool for bringing about change (eg charges on plastic bags) while alternatives such as central state planning and rationing can lead to gross inefficiencies and corruption. What is often lost is the moral dimension to Smith's thought and his insistence that ethics must guide economics. He condemned greed and self-indulgence. Contrary to his epigones, he was also aware the 'division of labour' in the name of efficient production could have very negative social effects, obliterating the "nobler parts of the human character".

Edmund Burke (1729-1797) probably seems a less than likely candidate for the green pantheon. Yet his warnings about how revolutions such as that in France towards the end of his time, tend to 'eat their children' spotlights the danger of unintended consequences and how radical change can deliver some radically unwelcome outcomes, as, of course, happened in the Stalinist, Maoist and many other purges in revolutionary regimes. There is a useful discussion here: https://www.barnesandnoble.com/w/sane-polity-william-ophuls/1115670308

The precautionary principle should be applied to all activities, not just technological innovation. How easily comparatively modest and/or well intentioned government plans can go badly wrong is illustrated here: https://www.theguardian.com/books/2013/sep/04/blunders-government-king-crewe-review.

20. Green thinking really draws on political undercurrents, ones not easy to place on a 'left-right' spectrum

Tolstoy: Tolstoy promoted peaceful living and a deep distrust of government. Non-violence included vegetarianism.

Mary Shelley and 'Frankenstein': https://web.colby.edu/st112a2018/2018/02/28/frankenstein-and-the-dangers-of-unrestrained-science/ Patrick Geddes: https://medium.com/@designforsustainability/design-and-planning-for-people-in-place-sir-patrick-geddes-1854-1932-and-the-emergence-of-2efa4886317e

Personalism (Charbonneau and Ellul): https://ellul.org/themes/ellul-and-personalism/

Ellul and critique of technological society: https://www.thenewatlantis.com/publications/confronting-the-technological-society

George Orwell (1903-1950) also warned how easy it is to take steps down the road of a destructive totalitarianism, most famously in his books 'Animal Farm' and '1984). His other writings contained powerful critiques of 'colonial superiority' eg

https://blogs.glowscotland.org.uk/nl/braidhurstenglish/files/2018/06/essay-1.pdf and https://books.openedition.org/pulg/883?lang=en

He was a strong defender of the need for clear language and thought as well as a critic of the failings of life in urban environments alienated from the rest of nature.

This latter theme is well brought out by David Ehrenfeld: https://www.jstor.org/stable/3851009?seq=1#page_scan_tab_contents, reprinted in an excellent collection of essays by Ehrenfeld, 'Beginning Again' (https://global.oup.com/academic/product/beginning-again-9780195096378?q=Ehrenfeld&lang=en&cc=gb)

21. Take the best... leave the rest

We must remember the old adage that 'no-one is perfect'. Green political thought needs to pick and mix, taking good ideas from many sources as long as they fit the politics of the sustainable common good. It has no gurus unlike, say, the Trotskyists who can but regurgitate the master's words. [On Trotsky, see: http://www.trotskyana.net/GuestContributions/irvine_prophet.pdf] Nor does it try to make out that Marx was some profound ecological thinker rather than a man who embraced mass industrialism and 'growthism'.

Case study of **Scott Nearing**. The Nearings were, in many ways, admirable pioneers, exploring how to 'live lightly' and with greater self-sufficiency. Yet Scott Nearing was also an apologist for Stalinism.

22. Take the best... leave the rest

Case study of **Robert Blatchford** (1851-1943). The opening chapter of his best seller 'Merrie England' is a rousing indictment of industrialism that anticipated many elements of the Green critique of our polluted and degraded world yet he was also a nationalist who supported the Boer War. See: https://spartacus-educational.com/Jblatchford.htm and http://www.ihr.org/jhr/v01/v01p355_Lawson.html
His brother Maurice denounced a system that "dirties the sky, poisons rivers and poisons the atmosphere."

23. It is the core values and the whole programme that count...

On ecofascism, see: http://home.ca.inter.net/~greenweb/Ecofascism.html Contrary to the image of the Nazis as backward-looking fantasists, the regime enthusiastically embraced the latest technologies such as autobahns, giant hydropower dams in the Alps and the Hollerith computer. They also planned to destroy wetlands such as the Pinsk marshes. Fascism shared much with Futurism's cult of the modern, of speed and power (with echoes in the Soviet Union). Genuine conservation was not part of this ethos. Indeed, the glorification of war and conquest was the very opposite of green views on peace and reconciliation.

24. Science and politics

On scientism: https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2012/04/the-limits-of-scientism-john-gray-on-jonathan-haidt; https://www.npr.org/sections/13.7/2013/08/13/211613954/the-power-of-science-and-the-danger-of-scientism & https://blog.apaonline.org/2018/01/25/the-problem-with-scientism/

25. Science and politics: 'means' and 'ends'

See: https://steadystate.org/an-economics-fit-for-purpose-in-a-finite-world/

26. **Theory and action**

From left

Chipko movement in Himalayas: http://www.indiaenvironmentportal.org.in/files/file/Chipko%20Movement%20evolution.pdf;

https://www.jstor.org/stable/3673267?seq=1#page_scan_tab_contents

Green Belt movement of Kenya and Wangari Maathai: https://www.greenbeltmovement.org;

https://www.nobelprize.org/prizes/peace/2004/maathai/biographical/

Helen Caldicott, Australian writer and over nuclear power; https://www.helencaldicott.com

Also worthy of special note was the emergence of the **Green Ban movement** in Australia led by Jack Mundey of the Building Workers Union. It fought, with some success, the destruction of historic buildings in the name of 'development'. The alliance of trade unionism and green causes has been somewhat illusive but it has happened and remains an important goal. See: https://isocarp.org/house-jack-built-jack-mundey-green-bans-hero/ and http://education.abc.net.au/home#!/media/521067/?id=521067

27. **Developing roots**

Left

The women-led campaign against "murderous millinery" was, arguably, first large-scale green movement. See: https://www.dressedpodcast.com/podcasts/murderous-millinery.htm .

Right

Newcastle upon Tyne in NE England had its "Dicky Bird Society' which was very popular at the time and included a pledge to be kind towards wildlife. See: http://s3.spanglefish.com/s/30187/documents/dickie-bird-society.pdf

28. **Battle over Hetch Hetchy: Muir v Pinchot**

Hetch Hetchy battle: https://vault.sierraclub.org/ca/hetchhetchy/history.asp

Gifford Pinchot embodies the concept of sustained yield and doctrine of resource efficiency. One-dimensionally it focused on the production of single commodities, at the expense of the sustainable common good of whole systems eg forests and all life therein not just timber crop. Pursuit of resource efficiency has sometimes meant destroying wildlife.

See: https://www.pdcnet.org/enviroethics/content/enviroethics 1984 0006 0004 0293 0322

The vast monocultures and clear-cuts of modern forestry embody the nature of such management (often called 'multiple use' and 'stewardship', all feeding into the concept of 'sustainable development'). Wild rivers have to be 'put to work' with HEP dams and so forth. Even national parks were to be yoked to the goal of more visitors and tourist infrastructure.

Dreams of stewardship can lead to that hubris which tempts humans to treat environmental systems as a mere resource, there to be manipulated to satisfy whatever whim grabs their fancy, ignoring Lord Acton's warning about the temptations of power. Certainly, human changes to energy flows, material cycles and biotic composition have routinely led to devastating 'blowback' (from destructive introduced species to the altering of atmospheric gas balances). That said, stewardship does also suggest notions of responsibility and care so it has its benign aspects too. So, it retains, at least, some merit.

John Muir the leading voice of wilderness preservation, founded the Sierra Club, rallying the growing number of citizens to the cause of environment protection (https://discoverjohnmuir.com/muir-info/). He embodied the green position in the battle to save Hetch Hetchy from being destroyed to create a reservoir. Greens would always look first at reducing demand (eg using less water and using what we do consume more efficiently) before expanding supply (eg more reservoirs). Neighbouring Yosemite was mercifully spared. Muir tended to focus on protection of wilderness areas but we also need to 'green' areas that humans dominate (eg towns and cities) or else national parks, nature reserves and other protected lands will be at risk from pollution generated in factories and on farms and other 'trans-border' menaces (including, of course excessive numbers of visitors)

29. Green warnings have long roots ...

One prescient voice was William Hornaday: http://hornadayscrapbooks.com/about hornaday

Note date of Hornaday's book to right. It was a best seller, part of its success being an appeal to reader's emotions. It can be compared to Upton Sinclair's 'The Jungle", the famous exposé of evils of meat-packing industry of the time. The death of the last known passenger pigeon in a zoo in 1914 was a portent what was to be the biggest impact of humanity in the 20th century: the destruction of the Earth's once rich diversity of plants and animals. Flocks of these birds had been so huge that they darkened the skies in daytime.

30. **1950s; The Great Acceleration**

Conventional parties celebrated new era of prosperity, eg middle road of 'Butskellism' in Britain, though Hard Left such as Trotskyist groupuscules predicted a new slump while the Right feared spread of communism and a new era of serfdom. It was the era when many of today's dangerous developments took hold, ie under Keynesianism, not 'neo-liberalism'. See:

http://www.igbp.net/globalchange/greatacceleration.4.1b8ae20512db692f2a680001630.html

31. **Proto-Greens of the time**

By contrast to the mainstream, there were prescient individuals who saw the writing on the wall, even though their prognosis was not to be fully vindicated until decades later. Note that Ordway specifically talked in terms of "limits to growth", the key green tool of analysis.

Fairfield Osborn: See: https://www.revolvy.com/page/Henry-Fairfield-Osborn-Jr.

William Vogt: See: https://www.encyclopedia.com/environment/encyclopedias-almanacs-transcripts-and-maps/vogt-william-1902-1968-american-ecologist-and-ornithologist

Samuel Ordway: see: https://www.nytimes.com/1971/11/20/archives/samuel-h-ordway-jr-is-dead-a-lawyer-and-conservationist.html

Mention might be made of Baker Brownell as well. In the early 1960s seminal figures including Rachel Carson (see below) and Jacques Cousteau. Another trend was emerging: vicious counter-attacks against those who were of the dangerous road being taken eg the veritable witch hunt against Rachel Carson.

32. More proto-greens

Aldo Leopold. See: https://www.aldoleopold.org

'A Sand County Almanac' is one of the green' classics: https://faculty.ithaca.edu/mismith/docs/environmental/leopold.pdf

Lewis Mumford: https://www3.nd.edu/~ehalton/mumfordbio.html , https://www.nhbs.com/lewis-mumford-and-the-ecological-region-book and https://archive.nytimes.com/www.nytimes.com/books/99/05/16/specials/mumford-city.html

Leopold Kohn: Kohr questioned the wisdom of 'bigger is better' in books such as 'The Breakdown of Nations' and 'The Overdeveloped Nations'.

https://www.rightlivelihoodaward.org/laureates/leopold-kohr/ and

https://centerforneweconomics.org/publications/the-wisdom-of-leopold-kohr/

33. 1962: A critical moment — Rachel Carson and subsequent witch hunt

'Silent Spring' was truly a seminal book. Rachel Carson's well founded warnings also prompted a vicious backlash from assorted vested interests with, surprise, surprise, Monsanto to the fore

http://www.environmentandsociety.org/exhibitions/silent-spring/overview https://news.mongabay.com/2017/03/rachel-carson-a-sensitive-soul-who-changed-the-way-we-see-and-treat-the-world/ https://daily.jstor.org/rachel-carsons-critics-called-her-a-witch/

Also note Murray Bookchin's book from 1962, 'Our Synthetic Environment' (he wrote using the pen name of Lewis Heber): http://www.whpress.co.uk/GE/Articles/11 Library.pdf

34. Turning Points in Green Thought: some key individuals

Paul Ehrlich: https://www.umsl.edu/~hwec/WEArecipients/ehrlich.html; https://climateone.org/audio/population-bomb-50-years-later-conversation-paul-ehrlich; https://www.theguardian.com/cities/2018/mar/22/collapse-civilisation-near-certain-decades-population-bomb-paul-ehrlich

It is widely thought that, later, Ehrlich lost the bet he made with cornucopian economist Julian Simon about resource prices. But see: https://web.stanford.edu/group/CCB/Pubs/Ecofablesdocs/thebet.htm

Perhaps Ehrlich made the mistake of assuming the prices would reflect ecological reality. Sadly, prices often fail to incorporate many costs (often externalised onto other people, other places and indeed other species) and do not capture geologically driven shortages that lay around the corner. An article in 'Playboy' of all places by Paul Ehrlich on the threat from overpopulation encouraged the formation in England of People, forerunner of the Green Party.

Frank Fraser Darling: https://www.bbc.co.uk/programmes/p00h3xk5; https://www.littletoller.co.uk/authors/frank-fraser-darling/; https://www.facebook.com/watch/?v=1160773920619038

David Brower: https://browercenter.org/about/who-was-david-brower/; https://cup.columbia.edu/book/the-man-who-built-the-sierra-club/9780231164467; https://www.theguardian.com/news/2000/nov/08/guardianobituaries1.

Club of Rome/Meadows et al: https://www.clubofrome.org;

Blueprint for Survival — Edward Goldsmith and Ecologist team: https://theecologist.org/2012/jan/27/ecologist-january-1972-blueprint-survival, https://theecologist.org/tag/edward-goldsmith and https://green-history.uk/people/memories-of-teddy-sandy-irvine

Fritz Schumacher: https://centerforneweconomics.org/envision/legacy/ernst-friedrich-schumacher/ and

https://gandhifoundation.org/2011/11/25/who-was-fritz-schumacher-by-diana-schumacher/ Try to find his film 'The Edge of the Forest.'

Again, there was a bare knuckle fight back by defenders of 'business-as-usual'. Some of the fiercest actually came from the Left, angry that the dream of cornucopian abundance under socialism was being questioned. A leading figure in the mainstream cornucopian camp was Herman Kahn. Later, he was followed by the likes of Julian Simon.

35. Turning Points in Green Thought: Garrett Hardin and the Tragedy of the Commons

Hardin wrote many useful pieces. His formulation that 'you cannot do just one thing' is, for example, better than the more widely used one of 'everything is connected to everything else' (popularised by Barry Commoner). The latter is so loose as to be meaningless whereas Hardin's reminds us of the dangers of unforeseen and unintended consequences, with a due need for precaution. However, Garrett Hardin is most famous (or, probably, infamous) for his 1968 essay on the 'tragedy of the commons', one of the most widely cited articles of all time. A PDF version can be found here: http://science.sciencemag.org/content/sci/162/3859/1243.full.pdf On Hardin himself, see: https://www.fs.blog/garrett-hardin/ and http://www.garretthardinsociety.org/index.html

Hardin interpreted the dynamic too narrowly and was subject to much legitimate criticism. Yet the core idea is valid and remains a critical element of Green analysis. It is simply wrong to blame social, economic and environmental problems on just structures of oppression and exploitation as in the manner of the self-styled 'anti-capitalists'. Many of the examples cited against Hardin were actually not true 'commons', ie finite resources with unlimited access on a mass scale. Usually, they were regulated by custom and practice and frequently restricted to members of the village, township, tribe and so forth. They were also small-scale societies with limited technologies, unlike today's overpopulated urbanised lands, societies armed with 'brute force' technologies.

There is a myriad of examples of the tragedy dynamic at work'. The essential perspective is that something finite that belongs to everyone (unlimited access etc) effectively belongs to no-one and is thereby more open to overexploitation and other forms of abuse, not least sheer neglect. Critically, there is no exploitative or otherwise malign intent necessarily at work. The dynamic is such that even neutral or benign individual actions could be cumulatively to bad outcomes for everyone. Few, for example, deliberatively try to render bus services uneconomic but that I what happens when too many abandon buses for the car. Few people are trying to put excess pressure on the national grid but that is the cumulative consequence of all the electronic equipment piling up in individual households. The rather glib demand of 'reclaim the commons' could actually lead to disaster if other measures are not put in place.

Thus, it is often easy to tell multi-occupied properties from the state of the front garden whereas many shared areas, including nature reserves, protected woodland and sand dunes become dumping grounds for people with dogs. Examples of bad outcomes include congestion on the 'open road', litter dropped on the 'commons of the pavement, loss of the 'night sky' due to too many lights on at night time, pollutants dumped into the commons of the atmosphere and waterways, 'fatbergs' in sewers, killing of migratory species, overfishing on the high seas, seabed mining, noise polluting the open sonic waves.

A particularly clear restatement of Hardin is by William Ophuls: https://archive.org/stream/pdfy-SXVS7n8VWRQUMvFD/Ecology%20and%20the%20politics%20of%20scarcity%20revisited%20%20the%20unraveling%20o_djvu.txt See also:

https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6435.1966.tb02491.x; https://academic.oup.com/bioscience/article-abstract/32/9/728/337180;

https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=https://www.google.co.uk/&httpsredir=1&article=1064&context=iss_pub and https://www.thegreeninterview.com/2010/09/05/ronald-wright-progress-traps/

36. Turning Points: events

1970: Earth Day. See: https://www.earthday.org/about/the-history-of-earth-day/

1972: UN's 'Only One Earth' conference in Stockholm.

See: http://www.environmentandsociety.org/arcadia/only-one-earth-stockholm-and-beginning-modern-environmental-diplomacy For 20th anniversary in Rio, see: https://www.encyclopedia.com/environment/encyclopedias-almanacs-transcripts-and-maps/united-nations-earth-summit-1992 On 'Earth Summitry', see: https://wordpress.com/post/sandyirvineblog.wordpress.com/1340

1973: Oil Crisis.

The oil price hikes seemed to confirm fears about resource shortages, as predicted by the Club of Rome and other such bodies, though its immediate causes were political, not geological or ecological (https://www.theguardian.com/environment/2011/mar/03/1970s-oil-price-shock). The related notion of resource peaks such as 'peak oil' has, however been much misunderstood and frequently misrepresented. It is not about oil or any other resource suddenly 'running out'. It is about inexorable decline of the quality and ready availability of any physical resource on a finite planet. The concentration of resources in a few places and especially political unstable ones such as the Middle East can but aggravate that fundamental limit.

Thus, there is a long-term tendency for the 'low hanging', high quality 'fruit' to be picked up, necessitating a shift to poorer quality and/or less easily accessed resources. At some stage, there will be a peak (eg https://energyeducation.ca/encyclopedia/Hubbert%27s_peak) but, on the downward side of the peak, there will still be some 'ups' even if the long-term destiny is decline. Sometimes there can be sudden increases as in shale oil but also speedy exhaustion of that new source, as shale is demonstrating (and where profits are very low). Politicians can also provide subsidies that artificially keep prices down, masking the resource problem or let producers get away with not paying for the damage they create. (eg http://priceofoil.org/content/uploads/2017/10/OCI_US-Fossil-Fuel-Subs-2015-16_Final_Oct2017.pdf).

Similarly, short-term gains of efficiencies in resource use (and indeed economic depression and depressed demand) can delay the process. In the case of the 1973 crisis, there was a big shift towards smaller and more frugal cars. That saved petrol, lowering demand and therefore its price. However, many people wrongly concluded that lower prices meant that the crisis had vanished and so shifted back to gas-guzzling vehicles, an example of the 'rebound effect'.

Once unsustainable side-effects are factored in (greenhouse gas emission, water pollution, disposal of tailings, land degradation and so forth), those 'ups' are even less of a refutation of the core 'peak' thesis. See endnotes for references.

37. **Green Parties emerge:**

See: https://www.globalgreens.org/literature/dann/chapterfive

The first Green organisation was founded in 1971 in Switzerland but it was only a local initiative in the town of Neuchâtel. The more significant step happened on the other side of the world in Australia. On March 23, 1972, at a large public meeting in Hobart Town Hall in Tasmania's capital to found the **United Tasmania Group** (UTG), the world's first Green political party was born. The UTG was formed in response to Tasmanian government proposals to flood and drown Lake Pedder, an Australian National Park, as part of a proposed dam and HEP project. Some four weeks later, it fielded its first candidates. See: http://greenoration.com.au/?page_id=133
The UTG was followed in May that year by the founding of the Values Party in New Zealand. It stood candidates in the November 1973 General Election, receiving approximately 27,600 votes in its first election campaign, 3.7% of the vote. It stood on the party's manifesto 'Blueprint for New Zealand: An Alternative Future.' Helen Smith of the New Zealand Values Party became the first Green elected in the world, when she was won a seat on the Porirua City Council in a by-election. In 1979, Daniel Brélaz of the Swiss Green Party was elected as the first Green MP on the national level in the world.

Green Politics in the UK began with the founding of People, the impetus from a meeting of four friends in Daventry. More than 50 people met in the office of local real estate agent Mike Benfield, approved an initial program and choose PEOPLE as the party's first name. Inspired by The Blueprint for Survival, (published by The Ecologist magazine), The Limits to Growth Report (by the Club of Rome) and the writings of Paul Ehrlich. In the picture, at a 40 year reunion, are the 'Gang of Four': (from left) Michael Benfield, Freda Sanders Lesley and Tony Whittaker. At the back are David Taylor (left), Elizabeth Whitebread and Clive Lord, the latter playing a leading role in promoting idea of a universal basic income. There had been another group formed already, January 1972 around the Ecologist magazine called the Movement for Survival, promoting the message of the 'Blueprint for Survival. It did not however, have the resources to build an organisation, despite considerable public interest. People and MFS merged in February 1974, using the name People, the new joint organisation subsequently becoming the Ecology Party and then the UK Green Party. As the names suggest, there was much suspicion of 'parties' per se, though the fate of movements such as the Italian '5 Star' shows that 'movementism' can be prone to even worse problems. Indeed the very lack of structures can produce ideological confusion, incoherent goals, disorganisation and loss of internal democracy (See; https://www.jofreeman.com/joreen/tyranny.htm)

Ecologie and Suivie was founded in France in 1973, with leading figures Antoine Waechter, Solange Fernex and Henri Jenn. They in turn helped to found the Mouvement Ecologique following the candidature of Rene Dumont in the Presidential Election of 1974. It was to be Die Grünen in Germany that, at the end of the 1970s, really gave the 'new' meaning of "green" its modern connotations for the general public. The German Greens were founded not with ecology as the core but on the basis of 4 pillars (the others were democracy, non-

violence and social justice. Likely tensions were ignored. They also stressed sexual liberation, the abolition of age of consent laws and drug decriminalisation. In sum, there was a lot about Die Grünen that owed more to 1960s 'counterculture' than any politics of ecology. The UTG has reformed, a reflection of the fact that some Green Parties are actually not really green, more radical social democrats. Some also suffer from destructive in-fighting and from individuals more interested in 'ego' than 'eco' in the form of 'identity politics'

38. 1970s: clarifying what 'green' actually means...

No to 'One-Dimensional Ecology'.

Barry Commoner's book 'The Closing Circle' had been influential but he largely blamed one dimension, that of technology. Indeed, he was a 'population denier', denying that human numbers count. But population size is problem number one because it has direct impacts of its own and uniquely multiplies the impact of other variables: https://mahb.stanford.edu/wp-

content/uploads/2014/02/2010_Ryerson_TheMultiplierofEverythingElse_PostCarbonReaderSeries.pdf.

Paul Ehrlich and John Holdren decisively demonstrated the errors of Commoner's approach (one shared by most 'shallow environmentalists.' Especially on the Left) in a critique first published in 'The Bulletin of Atomic Scientists' and reprinted in 'The Ecologist'. They later replied to Commoner's reply: https://www.tandfonline.com/doi/abs/10.1080/00963402.1972.11457946 Commoner's position, ie bad technology is the problem, also opens the door to fantasies about new technologies 'fixing' problems. But 'technofixes' routinely backfire (https://www.newsociety.com/Books/T/Techno-Fix and

http://www.edwardtenner.com/why_things_bite_back__technology_and_the_revenge_of_unintended_consequences_21108.htm) .

Commoner did have a point about the particularly pernicious role of certain technologies, irrespective of population size, not least the switch to plastics or the use of CFCs. Growth in per capita consumption similarly has its discrete impacts. But it is the sheer size of the so-called new global middle class that has multiplied its impacts eg https://www.reuters.com/middle-class-infographic, https://www.hsdl.org/?view&did=803869 and https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middle-class.pdf

Ultimately everything comes back to human numbers. Full 'fife cycle' studies, for example, have often shown that the impacts of different technological options is not as great as often assumed. At the same time, civilised living standards depend on certain levels of energy and material goods consumption. There are limits to what can be blamed on, say, 'overconsumption', ignoring the number of consumers.

I = PAT:

See: http://www.sustainablescale.org/ConceptualFramework/UnderstandingScale/MeasuringScale/TheIPATEquation.aspx

It is not some precise mathematical formula. It deals only in the broadest of aggregates and, in any case, we need to look beyond the immediate forces that are 'driving' this or that impact. They are mediated by various socio-economic institutions and, more deeply, value systems and associated worldviews. The real value of the formula is as a reminder that we must always bearing in mind all factors. Thus, it is absurd to assert that the problem is simply overpopulation or that it is just overconsumption. It is both! Similarly, we need to embrace concepts such as the precautionary principle regarding technological choices.

No to 'Resourcism':

Many people recognise that environmental pollution and so forth are bad things. But they basically see pollutants as just a few bad apples spoiling the barrel, a bit of dirt reducing the performance of an otherwise healthy engine of progress, something that could be solved by better management and/or better technology. Indeed, a common word used in mainstream circles, 'externalities', suggests something outside the system, not intrinsic to it. More fundamentally, they treat the environment and other species as only so much stuff there to be exploited to satisfy open-ended and indiscriminate human demands, merely of instrumental value (as in 'ecological capital').

A classic 'text' of more recent years was to be the 'Brundtland' Report (1987). Its popular name 'Our Common Future' was essentially about the future of one species (with scant attention to the reasons for inequality amongst them), let alone the relentless human takeover of planet Earth, ie the destruction of 'biocentric equality'). The Report advocated more global trade (usually leading to more biodiversity-depleting monoculture), more cattle ranching (often leading to deforestation), more nuclear power and overall more production (ie more 'technosphere' and therefore, on a finite planet, less 'ecosphere' and fewer non-human species). The notion of 'sustainable growth', is such an oxymoron (nothing can grow and grow on a finite planet). Soon, another term 'sustainable development' would be more commonplace, something that means everything and nothing very much.

This is a good critique of 'resourcism' at the heart of which is a virulent anthropocentrism:

https://global.oup.com/academic/product/the-arrogance-of-humanism-9780195028904 See also:

https://www.jstor.org/stable/23261819?seq=1#page scan tab contents and

https://meisner.ca/1995/03/30/resourcist-language-the-symbolic-enslavement-of-nature/

The Norwegian activist and philosopher **Arne Naess** played a leading role in developing a worldview in which humans worked with the rest of nature, which was recognised to have intrinsic, not just utilitarian value. He popularised the term 'deep ecology'. See:

http://www.deepecology.org/deepecology.htm

https://iseethics.files.wordpress.com/2013/02/naess-arne-the-shallow-and-the-deep-long-range-ecology-movement.pdf https://www.youtube.com/watch?v=GJz2zVW9WHM

In the 1940s, **Aldo Leopold** has expressed similar ideas in his 'land ethic'. It simply enlarges the boundaries of community to include soils, waters, plants, and animals, or collectively: the land... In short, a land ethic changes the role of Homo sapiens from conqueror of the land- "(It) simply enlarges the boundaries of the community to include soils, community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such."

See:

https://www.shambhala.com/deep-ecology-for-the-twenty-first-century.html

https://www.academia.edu/33058814/The_Deep_Ecology_Movement_An_Introductory_Anthology

It may be possible to tract down this out of print volume: https://trove.nla.gov.au/work/34847265?q&versionId=43211077

39. An emerging green economics:

Nicholas Georgescu Roegen: http://www.expo2015.org/magazine/en/economy/february-4--1906---nicholas-georgescu-roegen--the-father-of-

bioeconomy-.html

Herman Daly: https://www.rightlivelihoodaward.org/laureates/herman-daly/ Ezra Mishan: https://www.theguardian.com/books/2014/nov/07/ej-mishan

Also note: http://arachnid.biosci.utexas.edu/courses/THOC/Readings/Boulding_SpaceshipEarth.pdf

On the emergence of 'ecological economics, see:

http://www.uvm.edu/~jfarley/BUG/Herman%20Daly%20Festschrift.pdf and https://insights.som.yale.edu/insights/what-is-ecological-economics

40. Urging caution about technology:

Lewis Mumford developed the critique of the 'megamachine' eg

https://librarianshipwreck.wordpress.com/2014/10/19/the-good-life-or-the-goods-life-the-thought-of-lewis-mumford/ and https://www.nytimes.com/1990/01/28/obituaries/lewis-mumford-a-visionary-social-critic-dies-at-94.html

Things Bite Back:

http://www.edwardtenner.com/why_things_bite_back__technology_and_the_revenge_of_unintended_consequences_21108.htm

Technofix: https://www.newsociety.com/Books/T/Techno-Fix The technofix is still alive and kicking eg

https://clivehamilton.com/the-technofix-is-in-a-critique-of-an-ecomodernist-manifesto/

Appropriate technology: https://practicalaction.org/history &

http://www.tombender.org/societyworthlivingforarticles/APPROPRIATE%2520TECHNOLOGYpdf.pdf

The smear that Greens are reactionary **Luddites** soon spread. But Greens for some technologies but against others. They realise that 'alternative' is not necessarily 'appropriate and that society has the right to choose. In any case, the original Luddites are widely misunderstood. See:

https://www.smithsonianmag.com/history/what-the-luddites-really-fought-against-264412/ and

http://hettingern.people.cofc.edu/Nature_Technology_Society_Fall05/Lyons_Are_Luddites_Confused.htm

The film image is from the 1936 movie 'Things to Come' an adaptation of the H. G. Wells novel. 'Luddites' try to stop the start of space colonisation. In reality we'd be wiser to focus on saving the only home we'll ever have, planet Earth. Actually, the sheer volume of space debris, although not enormous in scale, is threatening the very future of safe space travel, other issues apart. Faith in the wonder of technology and mass industrialisation were strongest in the Soviet Bloc (poster from USSR) though, contrary to a widespread stereotype, the Nazis too were strong believer in industrial expansion, drainage of 'unproductive' wetlands and other habitats, and exploitation of new technology, from the autobahn and motorisation to the Hollerich proto-computer.

Greens challenge the assumptions of a 'technological determinism' which makes people appear helpless in the face of science and technological development (eg you can 'uninvent' x). In reality, history is littered with 'dead' technologies, ones that never took off despite early promise as well as ones that were abandoned. Research and deployment are routinely shaped by various forces, most obviously certain 'vested interests.' Thus, the technologies of solar photovoltaics and nuclear energy emerged at roughly the same time yet the latter received truly lavish state support while the former languished until recently. The military link was of course one reason (eg http://www.sussex.ac.uk/spru/research/themes/nuclear_research/nuclear_links)

Greens also recognise that technologies often have certain intrinsic qualities that do not change whatever their ownership or motives for deployment. Nuclear power is still a radioactive white elephant whether it is used for private profit or not (Chernobyl!). Armoured cars and ambulances cost roughly the same in terms of energy and raw materials, with attendant impacts, regardless of their differing social utility.

41. Rethinking land use and architecture:

Design with Nature: https://www.wiley.com/en-ad/Design+with+Nature,+25th+Anniversary+Edition-p-9780471114604 and https://www.citylab.com/perspective/2019/06/landscape-architecture-design-with-nature-ian-mcharg-books/590029/

Pattern Language: https://www.architectmagazine.com/awards/residential-architect-design-awards/hall-of-fame-christopher-alexander_o , https://www.permaculture.co.uk/articles/pattern-language-explained and https://www.patternlanguage.com . See also: https://muse.jhu.edu/article/671506/summary

Jane Jacobs: https://centerforthelivingcity.org/janejacobs#info https://www.theguardian.com/cities/2016/apr/28/story-cities-32-new-york-jane-jacobs-robert-moses and https://www.theguardian.com/books/2011/oct/14/jane-jacobs-death-and-life-rereading

Friedrich Hundertwasser: http://hundertwasser.com , https://www.youtube.com/watch?v=x6KTU9pZCG8 and http://www.hundertwasser.at/english/oeuvre/arch_gruene-zitadelle.php See also: http://blog.lpainc.com/bid/25739/Sustainable-Design-Lessons-From-Gaudi

Lady Eve Balfour: https://www.ifoam.bio/en/lady-eve-balfour-soil-association

Wendell Berry: http://wendellberrybooks.com, https://e360.yale.edu/features/interview_wendell_berry_a_strong_voice_for_local_farming_and_the_land & http://www.pbs.org/independentlens/films/look-see-wendell-berrys-kentucky/

42. An Emerging Politics of Place v. 'geography of nowhere':

See on the homogenisation of the world:

https://kunstler.com/books/the-geography-of-nowhere/; https://www.versobooks.com/books/360-non-places; http://uapress.ua.edu/product/Egotopia,908.aspx

Raymond Dasmann:

https://library.ucsc.edu/reg-hist/raymond-f-dasmann-a-life-in-conservation-biology and http://www.wholeearth.com/issue/2011/article/362/notice..unaware.citizens.of.biogeograhical.provinces

Peter Berg:

http://www.planetdrum.org/Peter Berg writings index.htm

Biogeographical provinces:

http://fnad.org/Documentos/A%20 Classification%20 of %20 the%20 Biogeographical%20 Provinces%20 of %20 the%20 World%20 Miklos%20 D.F.%20 Under the world with the world w

Ecotopia: https://www.youtube.com/watch?v=pczXBYJuab0 , https://www.npr.org/2012/04/28/151543517/my-70s-show-remembering-ecotopia-author-ernest-callenbach and https://www.citylab.com/design/2013/05/eerie-truths-and-hard-lessons-1970s-ecotopia/5636/

Cascadia: https://www.cascadianow.org and http://cascadia-institute.org

43. Green thinking is a very distinct body of thought:

Of course, Greens need to work with others where fruitful, avoiding 'holier than thou' sectarianism. That said, the politics of the 'lesser evil' has sometimes led in parties and politicians who turned out just as bad. Greens also should take the best of other's ideas. But clear water exists between the Green and all other political colours, not least with respect to ideas such as limits to growth, human scale, design with nature, bioregionalism, and the intrinsic value of other species. Greens take no dogmatic stance on, say, the role of economic planning, public ownership, markets and the price mechanism. It is a question of what delivers the sustainable common good and what is most appropriate for particular matters.

Similarly, Greens are not for a 'small state' or a big one but for devolution to the lowest practicable level (which, in a handful of cases, might even be global!) with the optimum level of accountability and transparency. Small is not necessarily beautiful but it tends to cause less damage when things go wrong and is easier to fix. Imagine if Hitler had been confined to just Bavaria or Stalin to Georgia.

See:

https://www.sunypress.edu/p-1386-environmentalism-and-political-.aspx https://www.routledge.com/Green-Political-Thought-4th-Edition/Dobson/p/book/9780415403528

https://archive.org/stream/pdfy-

SXVS7n8VWRQUMvFD/Ecology%20and%20the%20politics%20of%20scarcity%20revisited%20%20the%20unraveling%20o_djvu.txt https://www.newstatesman.com/2014/01/human-scale-kirkpatrick-sale-essential-reading-modern-age-corporate-bulk https://www.routledge.com/Demystifying-Sustainability-Towards-Real-Solutions-1st-Edition/Washington/p/book/9781138812697 http://londonpublishingpartnership.co.uk/the-post-growth-project/

14. Alarm bells ring even louder:

Gaia: The Earth as a living planet, capable of sustaining life (if we let it!) compared to the 'dead' Moon. The Earth is indeed our only home, a fragile oasis. To that extent ,the famous 'Spaceship Earth' metaphor is an apt one. It highlights, for example, the critical importance of geological finitude — the spaceship is only so big — and the 'cabin conditions', which, if compromised, threaten all our futures. But, on this 'spaceship', there are huge inequalities and part of the crew is wilfully destroying the craft, while others also do so by virtue of their indifference and ignorance. The spaceship metaphor also invites fantasies that we can geo-engineer it.

Such images also fuelled the perception of the Earth as a living entity ('Gaia' hypothesis), popularised by James Lovelock in particular. It too is a useful metaphor, stressing that the world is an interconnected place. We scan seldom if indeed ever do just one thing — there are always likely to be knock-on effects, some not known. There is a myriad of interactions that, together, create and maintain optimal conditions for life. But, of course, the Earth possesses no consciousness nor 'purpose'. Recognition of 'Gaian' mechanisms is no guarantee that bad conclusions might be derived, such as Lovelock's fervent support for the radioactive white elephant of nuclear power.

But symptoms erupted of the deteriorating and brittle state of this oasis:

Bhopal, 1984:

https://www.grandcentralpublishing.com/titles/dominique-lapierre/five-past-midnight-in-bhopal/9780446561242/; https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-industrial-disaster-30-years-later/100864/;

But remember Seveso (Italy), Sandoz chemical spill (Switzerland), the Lac Mégantic derailment (Canada), Baia Mare cyanide spill (Romania), Soma mine disaster (Turkey) the Savar factory building collapse (Bangladesh), the Brumadinho dam disaster (Brazil)... Dependence on 'brute force' technologies' (http://www.environmentandsociety.org/mml/industrialized-nature-brute-force-technology-and-transformation-natural-world) is likely to lead to brute force blowback.

Chernobyl 1986:

https://www.sky.com/watch/title/series/119a15a4-c006-4945-bce5-16fd7b9a284a/chernobyl

https://lareviewofbooks.org/article/the-monster-within-on-two-new-books-about-chernobyl/#!

https://www.independent.co.uk/news/world/asia/why-the-fukushima-disaster-is-worse-than-chernobyl-2345542.html

https://www.ucsusa.org/nuclear-power/nuclear-power-accidents/history-nuclear-accidents

The point about Chernobyl and so forth is not whether the disastrous sequence of events was extraordinarily atypical, a toxic combination of incompetence, irresponsibility, and sheer bad luck. Rather it is that nuclear power is so unforgiving when things do go wrong, as eventually always happens regardless of how good the management and the control systems. Greens advocate failure-tolerant systems not the development of technologies that depend upon the impossible maintenance of a 100% fail-safe standard.

Regular oil spills:

https://www.mnn.com/earth-matters/wilderness-resources/stories/the-13-largest-oil-spills-in-history; https://www.americanprogress.org/issues/green/news/2010/04/30/7620/oil-spills-by-the-numbers/ https://www.thebalance.com/bp-gulf-oil-spill-facts-economic-impact-3306212 https://www.theguardian.com/environment/2018/jun/28/bp-deepwater-horizon-oil-spill-report

Destruction by new roads — example of **Twyford Down** in England (1992):

http://undercurrentsvideo.blogspot.com/2011/12/battle-for-twyford-down-winchester.html;

https://friendsoftheearth.uk/climate-change/roads-ruin-uks-most-controversial-road-plans;

https://www.theguardian.com/environment/2016/dec/15/new-map-reveals-shattering-effect-of-roads-on-nature

 $https://www.independent.co.uk/environment/china-belt-and-road-initiative-silk-route-cost-environment-damage-a8354256. html\ ;$

Plastification' and giant garbage patches at sea:

https://www.theoceancleanup.com/great-pacific-garbage-patch/; https://www.oceanunite.org/issues/marine-plastic-pollution/; https://www.sas.org.uk/our-work/plastic-pollution/plastic-pollution-facts-figures/ https://www.independent.co.uk/.../plastic-pollution-uk-lakes-...

More and more severe hurricanes and other extreme weather events eg **Hurricane Katrina** and the flooding of New Orleans (2005): https://www.theguardian.com/weather/ng-interactive/2018/sep/11/atlantic-hurricanes-are-storms-getting-worse; https://www.thebalance.com/hurricane-katrina-facts-damage-and-economic-effects-3306023

The New Orleans disaster did stem from global warming and the overheating of waters in the Gulf of Mexico Yet it was magnified by a host of other factors, all human 'own goals.' These included the loss of protective soil sediment due to levee construction, exposure of unprotected soil

due to canal construction (also a cause of salt water intrusion and ensuing destruction of protective vegetation), increased vulnerability due to subsidence, something exacerbated by wetland drainage and subsequent soil oxidation as well as by geologic collapse due to local oil and gas drilling... and of course urban sprawl and building on inherently vulnerable land. Such contributory factors are all independent of greenhouse gas generation but each played its own malign part.

Warning of global overwarming by James Hansen in presentation to Congress in 1988

It is vital not to use the bland term 'climate change' which suggests something 'normal' not the reality of impending climate chaos and a truly dire emergency. Even the alternative term of global warming can suggest in some parts of the world something pleasant and indeed to be welcomed. We face potentially catastrophic overheating.

https://www.theguardian.com/environment/2018/jun/19/james-hansen-nasa-scientist-climate-change-warning;

https://www.ecowatch.com/2018-climate-change-disasters-2624578391.html?utm_source=EcoWatch+List&utm_campaign=4e8582734b-

EMAIL CAMPAIGN COPY 01&utm medium=email&utm term=0 49c7d43dc9-4e8582734b-

86026097&fbclid=IwAR1vUYwCeq1nEkpmjFiet258E1L6lkpHozlDjLgZCOpigkgp3l8m7M_Ll6s; https://www.theguardian.com/environment/ng-interactive/2018/dec/21/deadly-weather-the-human-cost-of-2018s-climate-disasters-visual-

guide?fbclid=IwAR3tMLWNgf nQNoYBpXR4vfopsD9PmARuthkQIRC8Vv1HiVuguHE123sguc

https://www.theguardian.com/environment/2018/aug/06/domino-effect-of-climate-events-could-push-earth-into-a-hothouse-state;

https://www.penguinrandomhouse.com/books/586541/the-uninhabitable-earth-by-david-wallace-wells/9780525576709/

Forest fires:

https://fires.global forestwatch.org/map/#active Layers=viirs Fires % 2 Cactive Fires & active Basemap=topo & active Imagery=&planet Category=null & planet Period=null & x=0.000000 & y=40.000000 & z=3 %

https://eandt.theiet.org/content/articles/2019/01/are-wildfires-getting-worse/https://www.newscientist.com/article/2200502-the-uk-has-already-had-more-wildfires-in-2019-than-any-year-on-record/https://www.voanews.com/a/concerns-rising-in-asean-over-borneo-fires-haze/4542338.html

Famines and more general food insecurity:

https://www.ucpress.edu/book/9780520271234/the-coming-famine https://www.scientificamerican.com/article/only-60-years-of-farming-left-if-soil-degradation-continues/ https://www.foodsecurity.ac.uk/challenge/

https://www.oxfam.org/en/emergencies/famine-and-hunger-crisis

https://www.newsociety.com/Books/E/Eating-Fossil-Fuels https://www.theguardian.com/global-development/2019/feb/21/worlds-food-supply-under-severe-threat-from-loss-of-biodiversity; https://www.theguardian.com/environment/2018/apr/24/10m-a-year-needed-to-ensure-englands-soil-is-fit-for-farming-report-warns https://www.soilassociation.org/media/4953/policy_report_2010_peak_phosphate.pdf

War eg invasion of Iraq (2003): https://www.theguardian.com/world/2019/jun/09/world-full-of-wars-so-many-ignored-central-africa-sudan-bokoharam?fbclid=IwAR1gOLPBuK7P3xLkUdbp67fBgXglg OYufnMM4Bnias-AbmiJOcSATPyxLs; https://www.sciencedirect.com/science/article/pii/S0959378018301596?via%3Dihub; https://www.globalpolicy.org/humanitarian-issues-in-iraq/consequences-of-the-war-and-occupation-of-iraq.html; https://www.thebalance.com/cost-of-iraq-war-timeline-economic-impact-3306301; https://www.oxfordresearchgroup.org.uk/blog/what-theenvironmental-legacy-of-the-gulf-war-should-teach-us; https://www.theguardian.com/commentisfree/2019/feb/08/us-afghanistan-civil-war-fundamentalist; https://www.independent.co.uk/arts-entertainment/books/reviews/investment-in-blood-by-frank-ledwidge-8668746.html https://www.sipri.org/media/press-release/2019/world-military-expenditure-grows-18-trillion-2018 https://www.amnesty.org/en/latest/campaigns/2017/09/killer-facts-the-scale-of-the-global-arms-trade/ Financial brittleness eg 2008 'credit crunch: https://www.theweek.co.uk/87574/ten-years-on-the-financial-crisis-in-numbers; https://www.theguardian.com/books/2018/aug/12/crashed-adam-tooze-decade-of-financal-crisis-review; http://richardheinberg.com/financial-vs-ecological-crash http://theoildrum.com/node/4617 https://www.peakprosperity.com/the-return-of-crisis/ **Biodiversity breakdown** https://www.pulitzer.org/winners/elizabeth-kolbert; https://www.ncbi.nlm.nih.gov/books/NBK219310/; https://www.theguardian.com/environment/2018/oct/30/humanity-wiped-out-animals-since-1970-major-report-finds; https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/; https://www.huffingtonpost.co.uk/entry/nature-destruction-climate-change-worldbiodiversity n 5c49e78ce4b06ba6d3bb2d44?guce referrer=aHR0cHM6Ly90LmNvLzlyaXFtcWhuTVE YW1wPTE%26guce referrer sig%3DAQAAAK 17NzFV2Scuz-N8Kram2MbFIQV8CgN30UwokTLdOdG2d3LB WIS1NR8VzOt4G0bhidrqHqAYbyVGqONbHqXXXJyaaI3PPEFMiunMsjeCq7oMAyLjFw5tdPmG9p2HA1 aBkXN19Bq3 MF7hxCl1rjSEYnZ3 qsuYtxCAr VBqn7v2%26guccounter%3D2&fbclid=lwAR1z7DAGSZs0ulxylhPj QehjfE2h-Bx7YxyH6PLKmC5mWLjBZeU6MCCdSI A battle for the planet in every sense (in order of appearance) **Greek police**: state of surveillance and suppression, from SLAPPS to militarisation of the police and murder. https://www.stand.earth/latest/free-speech/protect-protest/standearth-major-global-ngos-launch-protect-protest-task-force https://earthrights.org/blog/democracy-is-in-danger-we-are-here-to-protect-the-protest/

https://www.protecttheprotest.org https://www.theguardian.com/australia-news/2018/jan/11/creeping-stalinism-secrecy-law-could-imprison-whistleblowers-and-journalists https://www.pcaw.org.uk/legal-threats-to-whistleblowers/

https://www.thebureauinvestigates.com/projects/surveillance-state https://www.plutobooks.com/9781786803733/activists-and-the-

surveillance-state/https://www.theatlantic.com/international/archive/2018/02/china-surveillance/552203/

desk/do-not-resist-and-the-crisis-of-police-militarization https://www.counterpunch.org/search-

results/?cx=000357264939014560440%3Aicshsy4bfu0&ie=UTF-8&q=militarisation+of+police

https://www.theguardian.com/uk-news/ng-interactive/2018/oct/15/uk-political-groups-spied-on-undercover-police-list

https://www.aclu.org/blog/free-speech/rights-protesters/6-ways-government-going-after-environmental-activists

https://www.nationalgeographic.co.uk/environment/2018/07/why-2017-was-deadliest-year-environmental-activists

https://www.theguardian.com/environment/2018/feb/02/almost-four-environmental-defenders-a-week-killed-in-2017

Murder of Dian Fossey: https://gorillafund.org/who-we-are/dian-fossey/dian-fossey-bio/; https://awionline.org/awi-quarterly/2001-fall/murder-mist-solved

Murder of Chico Mendes: https://ejatlas.org/conflict/rubber-tappers-against-cattle-ranchers-the-murder-of-chico-mendes

Sinking of Greenpeace ship 'Rainbow Warrior': https://www.greenpeace.org/new-zealand/about/our-history/bombing-of-the-rainbow-warrior/

Murder of Berta Cacares: https://www.utne.com/politics/berta-caceres-assassination-zm0z17wzols

Attempted murder of Judi Bari: http://www.judibari.org/index.html; https://earthfirstjournal.org/newswire/2015/06/03/remembering-judi-bari-and-the-fbi-bombing-in-oakland/

But

Head in the sand:

https://steadystate.org/what-to-do-when-you-suspect-were-headed-for-collapse/; https://www.theguardian.com/news/2018/aug/03/denialism-what-drives-people-to-reject-the-truth; https://www.skepticalscience.com/5- characteristics-of-scientific-denialism.html; https://www.bokkilden.no/klimaendringer/climate-change-denial-haydn- washington/produkt.do?produktId=5849237;

https://grist.org/series/skeptics/;

Living in technological cocoon:

https://www.bbc.co.uk/news/entertainment-arts-36289890; https://www.independent.co.uk/life-style/social-media-high-usage-more-isolated-lonely-people-study-university-pittsburgh-a7614226.html;

https://greatergood.berkeley.edu/article/item/how_modern_life_became_disconnected_from_nature

So far so good:

Note the likes of Steven Pinker, Mat Ridley and Bjorn Lomborg as well as techno-utopianism of bodies such as the Breakthrough Institute and often associated concept of 'ecological modernisation'.

46. Green thinking vindicated but time is running out

http://donellameadows.org/archives/a-synopsis-limits-to-growth-the-30-year-update/

https://www.theguardian.com/commentisfree/2014/sep/02/limits-to-growth-was-right-new-research-shows-were-nearing-collapse

https://www.springer.com/gb/book/9781441994158

http://richardheinberg.com/bookshelf/the-end-of-growth-book

https://www.newsociety.com/Books/S/Supply-Shock-EPUB

https://www.peakprosperity.com/crashcourse/

https://populationspeakout.org/the-book/

https://steadystate.org/wp-content/uploads/EnoughIsEnough FullReport.pdf

https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report

47. Age of the Anthropocene': Make or Break

Human takeover:

https://www.citylab.com/equity/2015/10/the-future-of-global-development-mapped/409654/

https://www.overshootday.org/about-earth-overshoot-day/

https://www.independent.co.uk/news/science/earth-overshoot-day-humans-fossil-fuels-natural-resources-date-year-a8471121.html

The Anthropocene concept is useful for spotlighting the breadth and depth of the human impact (bootprint rather than footprint. However, there may be confusion between 'control' and impacts. We do not control the weather (though we can change climatic patterns), we do not regulate the driving chain of all life (the sun), we cannot make the Earth any the less finite, we cannot create something out of nothing, we cannot defy entropy, we must pay maximum attention to gravity, we do not create water (and desalination is fraught with blowback costs), we do not refill drained aquifers, we do not make primal forests. We do not manufacture soil on any significant scale, we do not create fossil fuel or mineral deposits, we do not photosynthesise (well, I don't, others might), we do not pollinate on any significant scale, we do not break up and recycle waste matter on any significant scale (compared to, say, decomposers and detritivores in ecosystems), we cannot make water spontaneously flow uphill, ...

Our powers of 'control' in the fundamental sense are very limited. But our attempts *at control* do have enormous impacts, most of them triggering destructive blowbacks, not least in the form of the climate crisis, dying oceans, soil erosion, aquifer depletion, salinisation, species elimination and so forth. Geo-engineering will most likely not work as hoped and, in the meantime, causes all sorts of political, economic and ecological blowback. Much of the literature about the age of the anthropocene is actually highly anthropocentric, riddled with hubris and foolish fantasy. In reality human beings are not wealth creators but **transformers** of what is made available independent of our actions. We are just as dependent on those external forces to absorb the waste by-products that *inevitably* arise (we must reject the silly concept of 'zero waste'). Image what would happen to city suddenly covered in an impervious dome through which nothing, gaseous, liquid or solid, could come in or go out.

Some of the control fantasies comes from some engineers who are too full of their own prowess. But it has other and bigger roots elsewhere. Some comes from the 'New Age' whose thinkers played with daft ideas about a coming noosphere and a reordering of the world in the shape of human desires. Another source is Marxism (see Trotsky's last testament and other writings, quoted here http://www.trotskyana.net/GuestContributions/irvine prophet.pdf).

Then there is sustainable development thinking. It is usually linked to the Brundtland Commission but in fact it goes back to the counter-attack against the 'Limits to Growth' Report. An early advocate was Ignacy Sachs who specifically advocated the transformation of the planet into a giant garden (no wild places there!). Then there is that technophilia which advocates, among other things, vast new cities in the polar regions and dreams on vast airport cities (aerotropolis), as well as space colonies. Last but certainly not least, there is science fiction. Anyone remember http://www.tv.com/shows/the-jetsons/?

Greens should deal in science fact, however. We should be 'humble' in the sense of Aldo Leopold's remark that we are all plain citizens of nature (https://www.aldoleopold.org/AldoLeopold/LandEthic.pdf). We must free ourselves from the hubris that David Ehrenfeld so powerfully skewered in his wonderful book 'The Arrogance of Humanism'. The green alternative is going with the flow and working sustainably within ecological patterns, flows and cycles.

Control freaks might be paid to go and see the movie 'The Martian'. Then they might appreciate how hard it is for 1 person, let alone 7 billion plus and still climbing) to survive without the Earth's life-support systems, the means of and conditions for production and indeed all activity. The only responsibility we can take is for our own actions. Karl Marx got it completely the wrong way. He advocated a changeover from the management of people to the management of things. The kinds of control we ought to limit are the various 'land grabbers', mining corporations, soil miners, the clear cutters, poachers, the 'infrastructure lobby', the urban sprawlers, the pro-natalist boomers,

Actually, the far bigger problem is not (mal)control at all but all those 'commons' into which we freely dump wastes, overfish, overhung, and so forth. No-one controls them hence their overexploitation via excess pollution, over extraction, overhunting etc.

48. **'Green '** now expresses itself in a variety of ways, all part of the solution.

Greener technologies eg CAT: https://www.cat.org.uk

Greener shopping: eg https://www.theplasticfreeshop.co.uk

Ecovillages: https://ecovillage.org

Wildwood: https://www.ecoforestry.ca/wildwood-1

Client Earth: https://www.clientearth.org/book-launch-client-earth-story-far/?gclid=Cj0KCQjwxYLoBRCxARIsAEf16-sHC0Mf-

gHd8hoVq6w4THVjqBwU7cE-Y6czmei9JLHUIGgBbL5Gi7waAnfKEALw_wcB

School strikes: https://www.theguardian.com/environment/2019/may/24/latest-global-school-climate-strikes-expected-to-beat-turnout-record

Policy development eg CASSE: https://steadystate.org

Green thinking: Book - 'Ecological Ethics'

That last book is an example of what might be 'paradigm work', in this case core green ideas. Many activists are dismissive of what they see as pointless theorising, wanting, instead, 'action'. That view is understandable given the need to bring about speedy change. Yet good' theory is essential if activity is to be well chosen and with the right goals.

Without values clarification, we will not know what are good goals. Without analysis, we won't know in sufficient depth what are the key threats and what lies beneath them. Also, without analysis, we won't be able to separate good policies from bad ones. Nor will we be able to make robust critiques of the latter ('clean coal', 'green growth', assorted fixes such as carbon capture, GMOs, driverless cars, 'rocket-on-wheels' high speed trains, nuclear power, crypto-currencies such as bitcoin, geo-engineering, and many, many more). Is the so-called 'Green New Deal' still fiddling about or something really worthwhile? What were the limits of the original New Deal? Is 'decarbonisation' enough? Only theory can tell us. Further, we need to critique false ideas such as 'identity politics', a very mistaken and divisive development. Then there are issues such as 'freedom of movement' and debates about free trade. How can 'equality' and 'justice' be reconciled with 'degrowth' and living within the Earth's limits? After all, trying to give everyone the consumption levels of a typical Californian would be very fair and just but it would only lead to the equality of the grave since it would destroy the Earth.

Without strategic and tactical thought, we won't know what are the best opportunities and best ways to exploit them. It is theory, for example, that tells us that we should all join the Labour or, in the USA, the Democratic Party, or, in Canada, New Democrat Party (or *not*!). Should we stick to pressure groups or try to build independent parties such as the Greens. It is theory that can shed light on best options in the current Brexit quagmire and in other quandaries (not least the perennial debate on the 'lesser evil'). We need to analyse carefully the appeal of the likes of Trump, Farage or Le Pen so we can find ways to counter it.

Good theory can however emerge through thorough, robust but still constructive debate. That debate will probably be more productive in participants are agreed on certain basics. Good theory further provides the vision of a better world without which it is easy to give up, such are the disappointments of activism. Otherwise it is hard to keep going when governments, businesses and other organisations routinely fail to act or even actively drive us all down the road to ruin. It is harder still to keep going when large sections of one's fellow citizens support such folly. But good ideas can help to keep up one's efforts. If we cease to make them, disaster must follow. If we keep up the fight there's still a change, even if now a slim one.

Without good theory, the best activism is likely to round and round in decreasing circles. Indeed, its absence can lead to disaster if that activity on the ground leads to power. Greens in Britain have sometimes not been best prepared when we did well on councils (local readers may know of problems on Brighton council. The rewilding movement here has hit some difficult choices (which reintroductions, etc). It need theory to resolve them.

Of course, 'theory' can degenerate into debate over how many angels can fit on the head of a pin. There have been theoretical publications such as New Left Review that seem to inhabit some ivory tower. Theory needs to inform and be informed by active engagement in struggles on the ground. It is not either/or but the two together. If I have to have surgery ('practice'), I'd prefer to have a surgeon who knows something of the human body ('theory').

Green Parties and electioneering:

https://www.carolinelucas.com

https://agc.greenparty.org.uk/what-have-our-green-councillors-done-for-us/ https://www.keithtaylormep.org.uk/news/report-green-mep-

successes-eu-2014-2018 https://greenworld.org.uk/article/uk-greens-celebrate-20-years-european-parliament

https://www.greenparty.org.uk/news/2019/06/07/deputy-leader-celebrates-green-successes-as-party-conference-opens/

https://www.theguardian.com/politics/2019/jun/02/european-parliament-election-green-parties-success

https://www.greenparty.org.uk/news/2019/05/27/greens-more-than-double-number-of-meps-in-spectacular-european-election-result/