Prime Meridian (101) February 28, 2019

On Feb. 26, the UK experience its warmest February on record. The reflection of the afternoon Sun beamed down the Thames (looking east from Waterloo Bridge).

"Think global, act local" - back to the future. We continue to explore new ways forward for environmentalism in the 21st Century.



An unseasonal touch of spring for the UK.

Until the last days of February 2019, the UK's warmest winter temperature was at Greenwich in South East London, in 1998, when it reached 19.7°C. The next warmest February on record was notched on Feb. 25, 2019. The highest temperature that day was recorded as 20.6°C at Trawsgoed in Ceredigion, west Wales. In London, many people out on the street were talking about spring having arrived. It reached as warm as 20.4°C at Northholt (west London). The next day, a new record was achieved. This time, it was in London Kew Gardens, west London. The new record was 21.2°C. Meteorologists are exploring the extreme February weather in terms of changes in the jet stream bringing up warm air from Spain. This was attributed to warming in the Arctic.

Global climate and images from the Deep Space Climate Observatory were delayed during the strike of USA government officials.

Global climate: 2018 saw the second warmest December on record.

The USA's National Oceanic and Atmospheric Administration (USA) stated: "The global land and ocean surface temperature for December 2018 was the second highest since global records began in 1880 at 0.86°C . . . above the 20th century average. This value trails behind the record year 2015 by 0.27°C . . . Australia had its warmest December on record with a mean temperature that was 2.13°C (3.83°F) above the 1961-1990 average. Notable cool temperatures were present across much of central Asia and Far East Russia where temperature departures were -3.0°C . . . or lower. However, no land or ocean areas had record cold December temperatures."



Source: NOAA National Climatic Data Center, State of the Climate: Global Analysis for December 2018. Published online. Data is provisional. All the anomalies quoted are positive. Readers can obtain further information from NOAA: https://www.ncdc.noaa.gov/sotc/global/201812

Above right: This was a view from the Deep Space Climate Observatory (NASA/NOAA) space craft on the day of the winter solstice, namely December 21, 2019, in the early afternoon: 13:40:56 GMT. Not only the mid-winter for the Northern Hemisphere, but also mid-summer's day in the Southern Hemisphere. This image was looking across Antarctica and the South Pole, because the continent is tilted towards the Sun, while we are tilted away. There was a brilliant Sun glint in the mid-Atlantic, which was the Sun's furthest latitude south for the year.

2018 was another warm year - among the warmest on record.

Data from NOAA revealed that "During 2018, 11 of 12 monthly global land and ocean temperature departures from average ranked among the five warmest for their respective months, giving way to the fourth warmest year in NOAA's 139-year record. . . . 2018 also marks the 42nd consecutive year (since 1977) with global land and ocean temperatures, at least nominally, above the 20th century average." https://www.ncdc.noaa.gov/sotc/global/201813

"Think global, act local" into the 21st Century.

The phrase is known around the world, but its implications are less well known. The time has come to recover its past and to explore its future.

Editorial: Dr. Martin J. Heath.

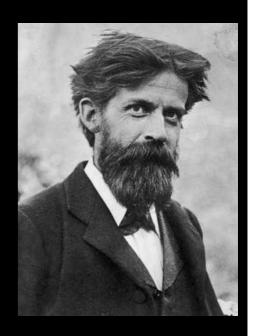
Throughout our campaign, we have promoted the importance of different scientific disciplines bringing their expertise into focus. During the 20th Century, the huge expansion of scientific knowledge encouraged specialisms. We should not forget, however, that essential insights often require cross-overs between traditional divisions. Where there is a tendency to separate key fields, bringing them together can not merely provide cultural enrichment, but actually gives them another dimension of understanding.

Patrick Geddes was a pioneer who encouraged others to join him in stepping beyond the boundaries and see the big picture of the world.

This famous key phrase, "Think global, act local" has been used by environmentalists for decades, notably since the 1960s or 1970s. There have been various claims as to who first said it, but the *meaning*, if not the precise wording, is often attributed to the influential Scot Sir Patrick Geddes (1854-1932).

Geddes has often been recalled as a "town planner." His work was important in that area, but that was just part of his intellectual contribution. It would be trite to call Geddes a "polymath." He should be better recognised as an innovator who drew together multiple strands of different disciplines.

The picture (right) is from The Patrick Geddes Centre, Edinburgh Old Town. "Inspired by Geddes' educational philosophy, the Centre fosters learning through 'Hand, Heart and Head', learning by 'doing'"



This is the spirit in which we must approach the ideas of Geddes as we launch the new environmentalism of the 21st Century.

A famous quote from Geddes gives us insight into his philosophy: "Each of the various specialists remains too closely concentrated upon his single specialism, too little awake to those of the others. Each sees clearly and seizes firmly upon one petal of the six-lobed flower of life and tears it apart from the whole." Geddes, Patrick (1947). "Town Planning in Kapurthala. A Report to H.H. the Maharaja of Kapurthala, 1917". In Jacqueline Tyrwhitt. Patrick Geddes in India. London: Lund Humphries. p. 26.

This is very much the thinking of the Ecospheres Protect. As readers will recall from our previous issues, we are passionate about drawing together the insights of many academic disciplines. PM 81. November 39, 2017; PM 82. December 23, 2017.

Patrick Geddes was born and flourished during the great upheaval of scientific understanding during the 19th Century.

Geddes became a student at the Royal School of Mines in London, (formed in 1851 and joined with Imperial College in 1907). During Geddes' time there (1874 and 1877), the Professor of Natural History was no less than Thomas Henry Huxley (1825-1895). Huxley was famous for his role in the historic 1860 debate on evolution staged by the British Association in the Oxford University Museum. He was among the speakers who confronted the anti-evolution party, including Bishop Samuel Wilberforce (1805-1873) and Vice-Admiral Robert FitzRoy (1805-1865). FitzRoy, of course, had been captain of HMS *Beagle* whose celebrated voyage had encouraged its naturalist, Charles Robert Darwin (1809-1882), to develop his evolutionary model of life on Earth. Geddes later met Darwin during the time that he spent at University College, London. In subsequent years, Geddes held a succession of academic posts.

Creativity, education and social justice for the people.

His influence crossed the globe. In 1880, he was Assistant in Practical Botany at Edinburgh University, and held the Chair of Botany at University College Dundee from 1888 to 1919. He played a role in the creating of the Zoological Gardens of Edinburgh 1909. In 1892 (National Library of Scotland online on Geddes): "Another project involved transforming Short's Observatory on Castlehill into the 'world's first sociological laboratory'. The Outlook Tower, now the Camera Obscura, encouraged people to take a holistic approach to learning about the environment. Successive floors demonstrated how by starting at a local level, one can begin to make connections with the wider world." Geddes' work played a key involvement in Dublin's health and housing issues (1911-1916) and in 1919, he assisted the Hebrew University of Jerusalem. He worked in Bombay (held post in Sociology and Civics at Bombay University from 1919 to 1925), founded the Collège des Écossais Montpellier in France in 1924 and contributed to Jaffa and Tel Aviv in 1925. The Patrick Geddes Centre was created as "a world-class centre for learning," and is located in Riddle's Court (built in the 1590s) in the Old Town of Edinburgh. http://www.patrickgeddescentre.org.uk

Geddes' philosophy helped to created the modern world.

Philip R Crowe is a leading expert on Geddes, about whom he produced his PhD dissertation at University College Dublin. In a recent online discussion, Philip Crowe (2017) explored the influence of Geddes. It's worth mentioning several of his comments here, because they illustrate the importance of Geddes' influence. Crowe quoted the American historian and sociologist Lewis Mumford (1895-1990) as saying: "reassures the reader that it is only a matter of time before he is recognised as "a rigorous systematic thinker" comparable to Aristotle, Leibnitz or Pythagoras"" The impact of Geddes on ecology was paramount. "For example, Odum (1944) considers it "peculiarly appropriate that his [Geddes'] own contribution should now become, like the stones that the builders rejected, pillars of a new world"" Howard Thomas Odum (1924-2002) and his brother Eugene Pleasants Odum (1913-2002) were both major figures in the development of ecology and notably co-authored *Fundamentals of Ecology* in 1953. Crowe noted that: "Batty and Marshall (2009) observe that it is only in recent years that a multi-disciplinary, evolutionary perspective is emerging that resonates with Geddesian thinking."

Barash, David (2002). Peace and Conflict. Sage Publications, Thousand Oaks, California, USA. Batty, M. and S. Marshall (2009). "The evolution of cities: Geddes, Abercrombie and the new physicalism." Town Planning Review 80(6): 551-574. doi:10.3828/tpr.2009.12. Mumford, L. (1925). "Who is Patrick Geddes?" Survey Graphic (February 1): 523-524. Crowe, Philip Richard (2017). Patrick Geddes in Dublin: Insights for urban resilience from the past, present and possible. School of Architecture, Planning and Environmental Policy, University College Dublin. Award date: 22.06.2017. Philip Crowe (2017). Patrick Geddes' ideas on civic engagement in the 21st century. Part 1: Who is Patrick Geddes? Blog. Jul 13, 2017. Odum, E. P. (1953). Fundamentals of Ecology. USA, Philadelphia, Saunder. Odum, H. (1944). "Patrick Geddes' Heritage to "The Making of the Future"." Social Forces 22 (3): 275-281.

Geddes' ideas are fascinating and deserve public discussion. However, they are more likely to be found in academic texts.

You will look in vain to find "Think global, act local" in Geddes' famous 1915 book on town planning, although it has been seen widely as a beginning.

The phrase goes not jump out at you in glowing clarity. Instead, Geddes' style was not an easy read. Often, he used sentences as long as paragraphs.

"Geddes is messy. His writing style was hardly that of a man of letters - indeed it depended on the ear and quick wit of his secretaries. His speech was cloaked by his accent and thick facial hair, as well as his non-linear, exploding enthusiasms." (John McKean, 2005). "He brought few concrete achievements to conclusion and no coherent body of theory."

Here is a quote from Geddes' work: Cities in Evolution. An Introduction to the Town Planning Movement and to the Study of Civics.

"One final word, of education now at its highest, of its very philosophy, and this at university levels; and why not beyond? What if the long-dreamed synthesis of knowledge, which thinkers have commonly sought so much in the abstract and by help of high and recondite specialisms, logical, metaphysical, psychological, mathematical, and the rest, all too apart from this simple world of nature and human life be really more directly manifest around us, in and along with our surveys of the concrete world? What if Aristotle, that old master of knowledge, turns out to have been literally, and not merely metaphorically, speaking in urging "the synoptic vision"? For surely "general views" may well be helped by general views. What if philosophic aims may be served, better than in the study alone, in course of an experience again literally peripatetic? And, if it be claimed that beyond the highest speculative education is the active, the ethical, may we not add to our surveys, service? And to our going about, doing good?"

John McKean (2005): "There are few people with the power really to make connections. And the enduring attraction of Patrick Geddes must surely be in his having this power to an almost magical degree. It's not just that he was 'a polymath,' as is always said; that's too simple. Nor just that he could see the big picture while acting in the immediate situation. It's that he also connects across to us as we read and listen to him, and the peculiar web he weaves seems somehow to have already crossed our path."

McKean J. (2005). Think Global, Act Local - The Life and Legacy of Patrick Geddes, edited by Walter Stephen. Urban Realm 11 Feb 2005. Walter Stephen, Editor (2004). Think Global, Act Local: The Life and Legacy of Patrick Geddes. Publisher: Luath Press Ltd [Paperback]. There are several versions of Geddes, P. (1915)'. Cities in Evolution. An Introduction to the Town Planning Movement and to the Study of Civics. http://www.archive.org/stream/citiesinevolutio00gedduoft/citiesinevolutio00gedduoft_djvu.txt

"Think global, act local" - for our own Century.

How can we take this great concept, recognising the astonishing breadth of Geddes' vision and take it forwards for the 21st Century? It is necessary to bring together the excitement of what scientists are discovering here on our living Earth and out among the planets. It is urgent to encourage the public understanding of all the key areas: botany, zoology, ancient life, geology, soils, meteorology, oceanography, human geography, arts and technologies, the Sun and other astronomical factors, but bringing them all together into a synthesis focussed first and foremost on the urgent response to climate change.

Instead of simply celebrating and repeating the past, our task today is to take it forward, launching new creative potential ideas for our own Century. We can all play a part in saving the world by inspiring a love of our beautiful planet and for its intriguing complexities, whilst finding realistic and practical hope for a positive future.



Above: A notable day for February 25, 2019. It became the second warmest February on record for the the UK. The sky is blue, the weather is warm, but the trees and hedgerows remain bare. Taken across a field at Ash, Kent, England.

Prime Meridian.

Prime Meridian is published by the Ecospheres Project, a research and media collaboration.

This newsletter follows global environmental issues alongside the cycle of the seasons in South East England. It steps back to look at the Earth in its astronomical context and it pursues the search for other habitable worlds.

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