

## Arthur Firstenberg's *The Invisible Rainbow* : A Brief Review

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### Abstract

Arthur Firstenberg has written an important book (Firstenberg 2020). He is both a scientist, a medical professional and science writer/journalist with an eye to deep history and much knowledge. It is well written and clear, but uneven in parts, particularly absence of a sensible discussion of Hoyle-Wickramasinghe's Panspermia-Cosmic Biology - the author's conclusions on the origins of influenza pandemics since the 1880s (from 1889 in particular) suffer from not considering all the extant evidence for Panspermia. The book is in two parts over 565 pages, rich in detailed referencing and notes which begins on page 393. This is a valuable resource.

### Main message

The advent of the industrial age and modern world via electricity, telegraph, phone then mobile phones, and massive saturation of our living environments with all types of electromagnetic radiations of all wave lengths and frequencies (in particular microwave radiations from wireless devices ) emanating from high tension electricity cables (above and below ground), telegraph machines , morse code devices, fixed phones, cordless phones and mobile phones, and of course personal computers, all developed *en mass* and in staged roll-outs from 1889 in America, Europe and across the world. This triggered the massive rise of human and animal cancers, diabetes and many metabolic ailments, hearing disorders etc. But the key sections on the origins of cancer via the work of Nobel Laureate Otto Marburg, early 1900s-1920s on anaerobic respiration in response to oxygen deficiency, thus low efficiency (non-Krebs Cycle) cytosolic glucose fermentation (glycolysis), as a hypoxia-induced cancer cell's sole energy source in the absence of oxygen, is compelling. This fits with a wider cosmic biology with many observations, for example the observed fermentation by-product ejecta from comets in our Solar System - e.g. we discuss in Steele et al 2018 "Many species of fermenting bacteria can also produce ethanol from sugars ...discovered that Comet Lovejoy emits ethyl alcohol amounting to 500 bottles of wine per second may well be an indication that such a microbial process is operating (Biver et al., 2015)"

**Part 1- " From the Beginning..."** covers the discovery of static electricity (Leiden Jar), early history of 'experiments' on human sensitivity to electricity, his presentation of the extensive data on chronic electrical illness and the condition of 'neurasthenia', the behaviour of plants to electrical currents (which have 'nerve fibre' - like networks with a clear electrical response stimuli system, which I did not know), acute electrical illnesses, and porphyrins/heme disorders and the basis of life. Part 1 can be read as an informative stand-alone (apart from the author's misinterpretation of influenza pandemics). So it covers human, animal and plant reactivity and conduction of electricity in health and disease. There are many very good historical (longitudinal) data tables and curves showing the strong positive correlation (almost regression) between each stage of the new modes of devices in our electrical age (1889->) and the rises of cancers, cardiovascular diseases and diabetes in human beings and animals and paradoxical effects on increased human and animal longevity ( mainly on Part II). I stress "and

animal” as this is the most profound of all his generalisations and conclusions (recall also that Influenza in 1918-1919 also profoundly infected and severely affected on scale many animal populations – Influenza clearly did not come from any particular animal species.

**Part II. “..To the Present”** – This is more of a strong crusade-type argument ( based on much evidence) against the modern electrical age , or at the very least to make us aware of all the causative - dangers - the author is a vegan, which helps explain the zeal ( and why this publisher put out the 2020 soft cover edition) . But it is still very informative as the correlations and regressions are **completely convincing** e.g. effects on rise of diabetes and loss of honey beehives is frightening.

### **Main take outs**

- His excellent review of the history and data of influenza pandemics (simultaneous global epidemic outbreaks 1918-1920 and earlier (1889) before mass air travel). The fact that person-to-person (P-to-P) spread cannot explain the rapid, often haphazard spread (e.g. simultaneity in widely dispersed global regions) and the continued failure of flu vaccination – this is an excellent reference resource. But his flaw is that he tries to line up the timing of influenza pandemics 1889, 1918-1919, 1957, 1968, with advances of industrial scale electromagnetism applications. This fails to handle all the data prior to 1889 on influenza and all the other pandemics in history. His causal mechanism? - an electrical induction mechanism releasing “latent flu” virions from carriers ( in man and animals) ie. they are reactivated into replication by such electrical surges on scale, causing pandemics of influenza. He suggests that Hope -Simpson put out a similar explanation (on pages 82-84) as well as publishing his famous correlation between electromagnetic field lines Sun<-> Earth, Sunspot cycles and flu pandemics (Hope-Simpson 1978). The data ignores all the facts of influenza and other suddenly emergent pandemics throughout history (and the H1N1 flu pandemic in 2009), including COVID-19 ( which of course has occurred after publication of his book, but SARS-Cov-1 in 2002-2003 could have been discussed and was not) . This has been comprehensively analysed by Fred Hoyle and Chandra Wickramasinghe in their *Diseases from Space* (1979) – this is not cited but he does cite Hoyle and Wickramasinghe (1990) which considered Hope-Simpson correlation cycles and influenza pandemics in a cosmic panspermia context (but Firstenberg does not mention that). For the origin and global spread of COVID-19 see our recent papers (Wickramasinghe et al 2020, Steele et al 2020- below). I will concede that the deep-electrical background may have been an associative factor in the severity of outcome in the 1918-1919 flu pandemic, and concede also it may be contributing even now to the severity and ease of P-to-P spread of COVID-19 ( November 2020) in the USA and Europe. But it is clear to us that in-fall of viral-laden meteorite dust from the stratosphere/ troposphere is the primary cause of all main hot spot outbreaks of COVID-19.

### **Rise of all Cancers, Cardiovascular Diseases, Diabetes since 1889**

All these data are compelling and presented in many Tables and Figures. An excellent data resource. The repetitive correlations across all times and regions of the world , rural and city, human and animal are so strong we can see why he threw in ‘electricity envelope *en mass* ‘ as a cause for Influenza (thus circumventing P-to-P, air travel, vaccination failure etc) - I think the deep and diverse electromagnetic background radiations, and foci and hotspots (transmitter towers, power installations) convinced him that the same causes could be applied to origins of viral and micro-organism pandemics. On this he is wrong, in my view. But everything else is convincing and must be more widely discussed and part of public policy and health care considerations.

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