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Fred-Talks

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Introduction to this Newsletter Issue

Hello again! Welcome to my newsletter. I hope you enjoy it or at least find it amusing. Or, perhaps, even irritating? I'm becoming more verbose. Sorry.

If you do not wish to receive more issues, please let me know via email.

I occasionally bring up issues that are someone else's point of view, but are points that I think should be discussed.

If you have other views, I would be happy to include your comments in the next Fred-Talk, with or without your by-line. Send me an email.

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Potable Water Pamphlet

I have been offering a brief lecture on potable water at the **Hatfield Marine Science Center** in Newport, Oregon over the past ten months. The subject examines what potable water is, why it is necessary for human life, and where it is found.

I still have pamphlets that I give to audiences. Send a request to fgduerr@gmail.com and I will email a copy to you. If you are at the Hatfield Marine Science Center, ask at the front desk for your free copy.

By the way, the photograph below is of a Mad Scientist. (*Hamline Univ. St. Paul, MN 1959*)



Food for Thought

On Thursday, May 15, I went to a lecture by Dr. Boone Kauffman of Oregon State University's Department of Fish and Wildlife. It was an excellent and informative lecture on carbon balance in Mangrove growths throughout the world, and the relationships of vegetation with denitrification of soils and carbon dioxide production.

He cited examples where Mangrove growths were removed to make shallow ponds in which to cultivate shrimp and

fish. He showed that after about 6 to 9 years, so much of previously accumulated nutrients in the soil were removed that the ponds would no longer support a fish farming operation. Meanwhile, the released carbon would enter the atmosphere as carbon dioxide.

He estimated that carbon dioxide released into the atmosphere by one "shrimp cocktail" would be the equivalent of burning several gallons of gasoline. His research needs widespread dissemination.

Website
www.chemeco.com

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Whenever anyone says anything, he is indulging in theories

~Alfred Korzybski~

What is a Tincture?

For centuries people have been making and ingesting extracts of various herbs and other substances. The general consensus is that these extracts have medicinal benefits and/or taste good. These extracts are generally called **Tinctures**. Iodine, sleeping potions, and cold remedies fit into the above category, and so do coffee and tea. Terms used to describe processes to make these extracts, and to use the extract for various purposes are varied and somewhat confusing. This article is an attempt to explain tinctures in general.



In a later article, I will give examples and instructions on how to make a tincture of herbs.

The word "Tincture" has several definitions depending upon who uses the term. For example, a chemist would probably define tincture as a solution of something dissolved in an alcohol. Most of us are familiar with Tincture of Iodine and Tincture of Mercurochrome.

Botanists and herbologists tend to use the term tincture to refer to an extract of plant material. In general the solvent is ethyl alcohol, but occasionally other solvents such as acetic acid (vinegar), glycerin (glycerol), or propylene glycol (common ingredient of food and skin products) are used.

All plants contain many lipid and water soluble compounds within their tissues. The goal of making a tincture is to extract compounds healthful for the human body and put them in a concentrated form whereby the human can ingest and absorb them readily and easily.

Those compounds not soluble in water can usually be extracted with a lipid solvent such as ethyl alcohol, etc. A combination of water and ethyl alcohol can extract both.

There are many reasons solvents such as acetic acid and/or propylene glycol are not always the best lipid solvents. Acids cannot dissolve many of the naturally occurring acidic compounds in plant tissue, and ingested propylene glycol may have some negative side-effects to humans. Non alcoholic solvents may also be prone to bacterial contamination and may need refrigeration. Tinctures made with at least 25% ethyl alcohol and 75% water can have an indefinite non-refrigerated shelf life and are among the most favored for plant material.

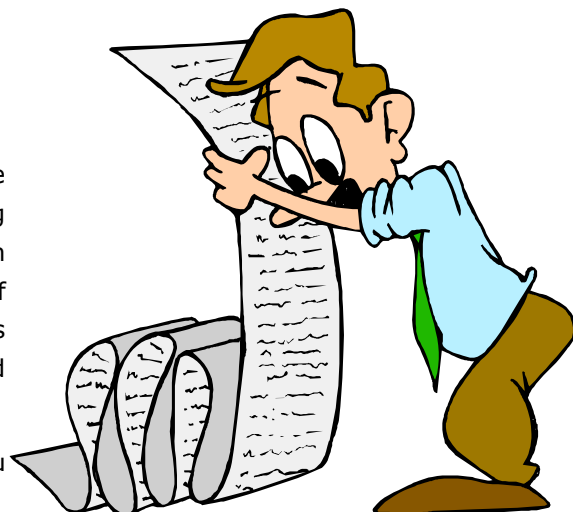
For those persons concerned about drinking alcohol, several drops of a 25% alcohol tincture probably contain less ethyl alcohol than a ripe banana.



Eminent Scientists

Several people have asked me to elaborate more on the life of eminent scientists along with a list of their accomplishments. In particular they wish to see a time-line of significant discoveries and interrelationships between and among scientists living and working at the same time.

Well, I am working on it and will give you periodic updates. Thanks for the advice.



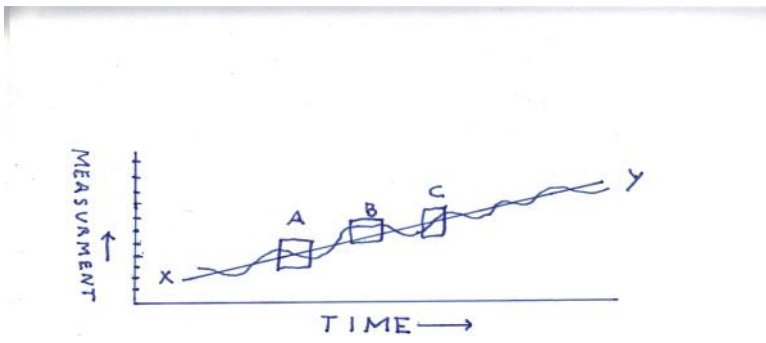
When Will People Ever Learn?

(What is Significance?)

Life, the universe, and all that stuff are constantly changing. Nothing stays the same. Whether a measurement in time can ever recur is in the realm of science fiction.

Furthermore, change is not constant. No matter how one measures it, change itself is variable. The rate of change fluctuates. It either increases or decreases. If things seem steady, it is being measured inaccurately.

Below is a diagram showing a measurement changing with time.



- The lesser the distance between a hill and valley, the greater the rate of change.

- The rate at Box A seems to be decreasing.
- The rate at Box C seems to be increasing.
- The rate at Box B seems to be steady.
- Overall, from X to Y seems to be increasing, unless the entire chart is only a fragment of a still larger chart.

Geologists have shown that Earth has had several warm periods and several cold periods. Presently there is an argument about whether the Earth at this time is heating or cooling.

During the early 1500's, one could walk from Denmark to Sweden. That area has not frozen over several hundred years. Hans Brinker probably could not ice skate on Amsterdam canals currently.

People make money on the thought that the Earth is warming. Other people, (www.climatedepot.com) make money showing that there has been "No global warming at all for 17 years 9 months".

Some people say that, depending on how one looks at it, both points of view are correct.

Finally, a few people (too many in my opinion) spend too much time arguing the matter, and not enough time in concentrating on how to best survive whatever happens right now.

Populations are rarely, if ever, stable (never?).

"Now I know the things I know, and I do the things I do; and if you do not like me so, to hell, my love, with you!"

Dorothy Parker



Portrait of Art Samuels, Charlie MacArthur, Harpo Marx, Dorothy Parker and Alexander Woollcott

Are Increasing Human Populations Part of Environmental Degradation?

For over a hundred years, scientists and philosophers have speculated on how much effect, if any, living organisms have on their environment. A term, "carrying capacity", was invented to describe the maximum number of organisms that could survive in a restrictive environment without destroying the environment. Studies on carrying capacity are still underway today.



Overgrazing

Many examples of the above can be found in agricultural books and journals. Most of this information is concerned with relationships between grazing animals and their pasture. For example, wildlife biologists have intensely studied the relationships between deer and browse.

About sixty years ago scientists started to concentrate on an organism's behavior when its environment is artificially maintained in a steady state. Several biologists at the University of Minnesota decided to observe the population dynamics of certain rodents kept in cages. For these experiments, the cages contained a constant supply of food, water, nesting materials and optimum heat.

A pair of white-footed deer mice (*Peromyscus maniculatus*) or a pair of meadow voles (*Microtus pennsylvanicus*) were put in each of a series of the above cages and were observed over a period of several

months. Only one pair of mice were put into each cage.

During the course of each experiment, the population of animals increased in each cage until "the cages were full of mice". Then the population of mice started to decrease until mice became extinct in some cages. In other cages the population of mice fell until only a few mice were left alive, and then the population would increase again.

An acquaintance observed that animals showed forms of stress at high population densities. They became aggressive to each other, interfered with normal mating, and killed young animals. In attempts to determine if there was a chemical or glandular cause for this aggression, my acquaintance measured and weighed the adrenal glands of certain mice to see if enlarged glands produced an increased level of adrenalin in the mice.

This work is still being performed with more sophisticated equipment and techniques. The mechanisms of the behavior patterns of crowded mice are incomplete, but there is no doubt that population density and behavior are interrelated.

There are numerous examples of similar research on many other animals.

Microtus pennsylvanicus



Peromyscus maniculatus

Does this possibly pertain to human activities and human population density? Can the Earth hold an infinite number of individuals? Can Earth house and feed an infinite number of people? Must humanity share Earth's resources with others species of life? Does human population density have any relationship to human aggression?

And does overutilization of Earth's resources lead to a reduced supply for future generations?

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Environmental Degradation? (continued)

Here are a Few Thoughts

1. The Earth has cycled between being hot and cold several times since its formation.
2. Mankind did not exist during all of this period of hot and cold cycling.
3. The Earth seems to be in a warming part of a cycle.
4. I do not think this warming is fundamentally due to mankind's activities.
5. There is no doubt in my mind that human activities contribute to this cycling, but may only be a small part of it.
6. I think that people should spend more effort on learning to live with whatever Mother Nature deals us, and less time in finding fault.
7. If the population of the Earth keeps increasing at its present rate, we shall become extinct, and sooner than from global warming. We seem to be already behaving like crowded mice.
8. Carrying capacity does not just pertain to animals. Plants compete for sunlight and soil minerals. They also inhibit competing plants with shade and toxins. Sometimes we refer to plants that over consume as Weeds.



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Truth is What You Can Get Other People to Believe. *Thomas Smothers*

Books I Have Read Recently Several by Sir Henry Rider Haggard

I was born, raised, and schooled in Minnesota. My father, who was born in Bavaria, spoke German as a child. He learned English as a second language. It used to irritate me that his spoken and written English was better than mine.

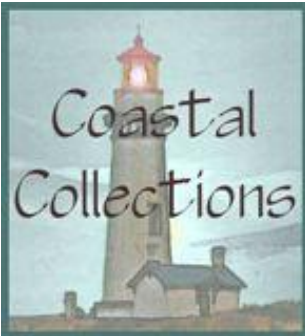
My father also liked to read, and every night before he went to bed, he would read a chapter or two and eat a bowl of ice cream. One evening I was interested in the cover of his current paperback novel. I asked him what he was reading, and he told me that it was "She" by H. Rider Haggard. He explained that he liked the writing style of the author and showed me several other books by the same man. I spent much of that winter reading King Solomon's Mines, Alan Quartermain, She, Nala the Lilly. Ayesha, and The Return of She. These stories are all interrelated with a recurring love triangle.

HR Haggard

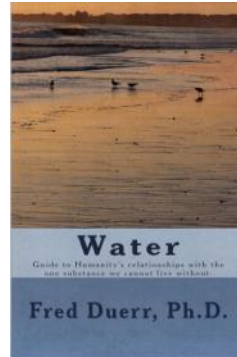


I have recently revisited my interest in Egyptian pseudo history, mythology, and African politics. These books are a good introduction to science fiction. One can read these novels, enjoy the wording and sentence structure, and be entranced by the stories. Several were made into movies.

BOOKS-BOOKS-BOOKS



Diana and I have somehow acquired several thousand books on a multitude of subjects. Click on the image at left to take you to our website, where you can search our inventory of books for sale at Biblio.com



I have written a small, 54 page primer on water. It is designed to give basic information to the general public. It is available at Amazon, com. As a paperback book (**Water**, by Fred Duerr), **ISBN: 1482773872** and as a Kindle, **ASIN: BOOCM13KSA**

Click on the book image to the left to take you to my page on Amazon.com.

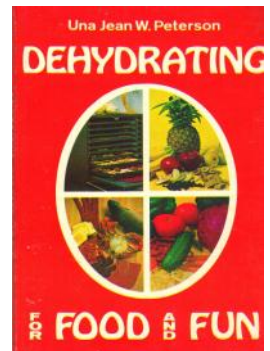
Free Book on Dehydrating Foods

I have several dozen copies of Una Jean W. Peterson's book "Dehydrating for Food and Fun". These are my own personal copies, and I am willing to give these books away.

Send me an email, and you can pick up a free copy from me (when I am on duty) at Oregon State University Hatfield Marine Science Center (HMSC). I will also leave some at the counter.

These books are free, but if I mail one to you, the postage and wrapping is \$3.96. Send me an email for details..

Fred G. Duerr, Ph.D.



Free Potable Water Manual

I have written a very brief pamphlet on how to find potable water. You may obtain your free copy by clicking [here](#).



I find that principles have no real force except when one is well fed.

Mark Twain