

5a. A spiral version of the Periodic Table indicates how the particle population evolve from uranium to become the universal element - hydrogen.

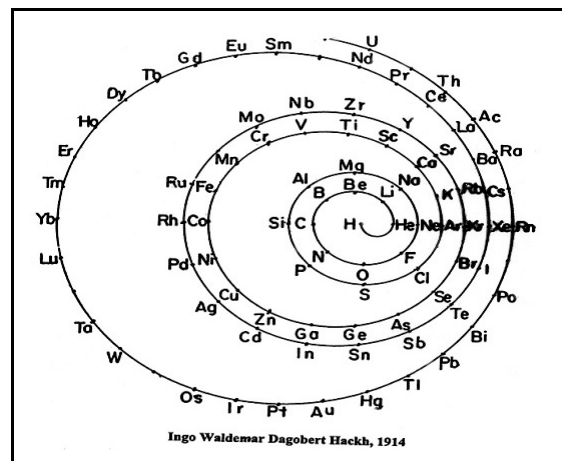
A standard tabular periodic table of elements, showing the hierarchical order of 94 naturally-occurring elements. The table is organized into groups and periods, with Lanthanide and Actinide series shown separately below the main table.

I wonder if others had an awakening experience, such as I did when I stumbled into the Chemistry classroom at school and met the Periodic Table for the first time. In its traditional form it displays the hierarchical order amongst the 94 naturally-occurring elements of matter. The order reveals how a 'periodic' pattern of similar physical and chemical properties exists amongst the elements. This hidden order within the material fabric of our Universe was largely determined in the 18th Century by European and Russian chemists. This knowledge contributed hugely to the industrial development and material wealth of the modern world.

Once I understood that this tabular display of orderliness amongst the elements

was created to emphasize shared physical and chemical characteristics, I found myself wondering about the dynamic process that must be at work in the background, to create the sequential ordering of the element's existence.

Looking around, I came upon this spiral design that displays the same information that is in the tabular presentation, but now the elements are plotted to show how they exist side by side on a singular path. A path that in effect winds its way from the edge of the mythic "sub-continent of Atomica", to then move gracefully inland and terminate at a virtual high point at the virtual centre of this Atomic landscape. The path in effect ends at the elemental state we know as Hydrogen, being as it is the simplest and most stable and abundant element of them all.

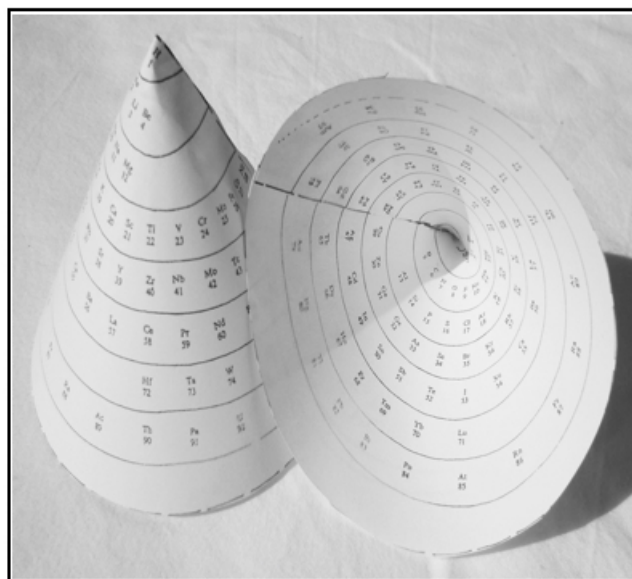


An overview of this spiral path straight away suggests that we are looking at a universal process whereby streams of nomadic particles (they might well be refugees arriving from a neighbouring star system that is about to explode) are drawn to land at the safe harbour of 'Uranium', where conditions allow for the first settlements or refugee camps for stateless particles to form. The uranium atoms, with their relatively large population of particles, provide the first experience that this stream of migrant particles will have of living collectively and cooperatively with others.

Elemental Uranium is where the spiral path begins. A path that will guide the particles to follow what is in effect a drawn-out purposeful winding route where-in the ninety and more elements are as stepping stones, or resting-places, or schooling places. This guides the particles to move through ever smaller and increasingly stronger community and family systems. Stage by stage, the migrating particles, individually and collectively, acquire the experience and skills, the centred-ness and security and stamina to know their universal nature, which finds expression in the uniquely simple and stable 'state of being' that is personified by the element Hydrogen: the element that forms, as we know it, about 95% of the Universe. Journey's end, we might surmise.

I would posit that the particles move along this path propelled by the instinctive drive and desires of the 'four forces' that dwell amongst and within the particles themselves. Forces that we know from personal experience are here in us humans and constantly seek to join with others, or one other, to form communities, partnerships, family systems. Or atoms, as we know these social units at the particle level.

In the context of the 'energetic symmetry' that infuses our Universe, it makes good sense to me that we



observe and value our personal experience of these four universal forces and observe how we personally and collectively manage them or how they manage us. Then we can better see if and how the same interactive processes go on at the atomic level of this shared universal system that we are all within.

In this quickly-told, dualistic, oft-times introspective, view of the Periodic Table, looking with a blend of "physics and metaphysics" perceptions, with "masculine lens and feminine gaze" acumen ... this spiral pattern looks to me to be as the universal system which takes care of the particle population, rewards them with knowledge and indicates the existence of a path that will eventual bring the particles to know their universal nature.

Observing this aspect of creation as a natural process going on at the Atomic level, then I find myself relaxing with glimpses of the same kind of kind processes constantly seeking to establishing themselves in human society. I had not imagined I would find this kind of wisdom emerging from a casual curiosity about the nature of the energy in the atom. Now I am moved to advocate a good fresh look into the Atomic World which translates into a good fresh way of how we look into the Atomic World. Less of the physics, I need to say, for we know this well enough. More of the metaphysics, for knowledge on this side of the divide helps us know the universal nature of both the particle world and ourselves. Then I sense we will gain the ability and resources to address the distress that exists in the Atomic Realm, much of which we humans are responsible for creating.

Our protestant nature likes the detail and profound orderliness of the Chemist's Periodic Table.



Catholic instinct likes the spiral path that the particles must follow as they evolve to become singular and strong

Ingo Waldemar Dagobert Hackh, 1914

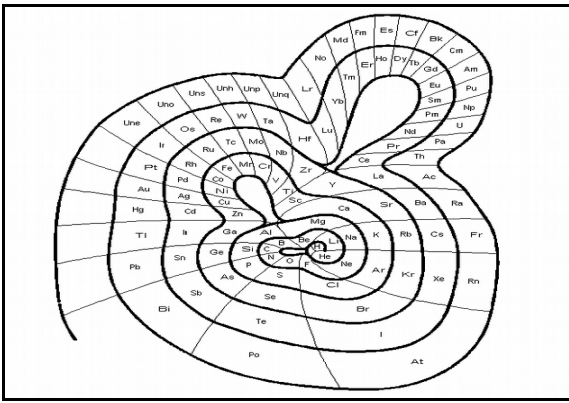
The information packed into the boxes that form the Periodic Table reflects the remarkable disciplined analytical skill of our left brain. Whereas the spiralling pattern, which is in effect the offspring of our empathetic right brain, flags up the deeply-satisfying idea of the atomic particles being embarked on a pilgrimage: that they might come to be fully part of the cosmos. I wonder if the symmetry that forms and informs this universe system we are all in, then has us humans making our way upstream in stages, also seeking to be at heart in the fullness of our universal nature.

I like this instinctive quest to recognise the animate nature of the particle world. It makes sense of the Universe and makes the Universe sensible. Brings with it an excitement for the sweet mystery of where this understanding might take us. My respect builds for the grounded-ness of the dualistic intellectual process we humans have, which draws information from each side of our twin-hemisphere brain that is in every person, and enables us to see the Atomic World as a dimension of life unto itself.

The atoms of the fringe elements, typically uranium, and thorium and plutonium, are the only community systems that can be fissioned. These elements are slightly unstable which leaves them vulnerable to outside manipulation. Now there is an opening for our creative mind to think of an approving approach that might secure their existence, and ours too.

I wasn't looking for any of this when I first became curious about the nature of the energy in the atom. Nevertheless, these are the insights that have developed within me as a consequence of "looking both ways" as-it-were. The perception of the "energetic symmetry" that pervades our Universe brings into focus the fairly pragmatic idea that we humans, we Humanity, have the potential to create some kind of remedial treatment for the radioactive particles, by learning to communicate quantum units of our "four forces

energy" to them.



ps: Resepect form the artist who developed this image from the data that the spiral and tabular formats of the Periodic Table generate.

I see it as a Madonna and Child `and applaud the creative mind which sees the indications of wholeness and holiness in the concepts of physics which visualise how the Elements of Matter matter are formed.
