Big History Threshold 3 -- The creation of chemical elements inside dying stars Compiled by W. Huitt Erlangen, Germany March, 2014

1. Whatever is in the heavens and whatever is on the earth is a direct evidence of the revelation within it of the attributes and names of God, inasmuch as within every atom are enshrined the signs that bear eloquent testimony to the revelation of that Most Great Light. Methinks, but for the potency of that revelation, no being could ever exist. How resplendent the luminaries of knowledge that shine in an atom, and how vast the oceans of wisdom that surge within a drop!..

Bahá'u'lláh: Kitáb-i-Íqán, pp. 100-102; Gleanings, pp. 177 178

- 2. ...each element has within itself as an inherent property the power of composition. For example, the inherent quality of fire is burning, or heat; heat is a property of fire. Humidity is the inherent nature or property of water. You cannot conceive H2O, which is the chemical form of water, without having humidity associated; for that is an inherent quality of water. The power of attraction has as its function attractive, or magnetic, qualities. We cannot separate attraction from that power. The power of repulsion has as its function repelling -- sending off. You cannot separate the effect from the cause. If these premises be true -- and they are self-evident -- then it would be impossible for a composite being, for the elements which have gone into the makeup of a composite organism, ever to be decomposed because the inherent nature of each element would be to hold fast together. As fire cannot be separated from heat, likewise the elemental being could not be subjected to decomposition, and this does not hold true because we see decomposition everywhere. 'Abdu'l-Bahá: *The Promulgation Of Universal Peace*, p. 424
- 3. ...All the wondrous works ye behold in this world have been manifested through the operation of His supreme and most exalted Will, His wondrous and inflexible Purpose. Through the mere revelation of the word "Fashioner," issuing forth from His lips and proclaiming His attribute to mankind, such power is released as can generate, through successive ages, all the manifold arts which the hands of man can produce. This, verily is a certain truth. No sooner is this resplendent word uttered, than its animating energies, stirring within all created things, give birth to the means and instruments whereby such arts can be produced and perfected. All the wondrous achievements ye now witness are the direct consequences of the Revelation of this Name....

Bahá'u'lláh: Gleanings, pp. 141-142

4. Briefly, we have said that from the composition and combination of elements, from their decomposition, from their measure, and from the effect of other beings upon them, resulted forms, endless realities, and innumerable beings. But it is clear that this terrestrial globe in its present form did not come into existence all at once; but that this universal existence gradually passed through different phases until it became adorned with its present perfection. Universal beings resemble and can be compared to particular beings, for both are subjected to one natural system, one universal law and divine organization. So you will find the smallest atoms in the universal system are similar to the greatest beings of the universe. It is clear that they come into existence from one laboratory of might under one natural system, and one universal law; therefore they may be compared to one another. Thus the embryo of man in the womb of the mother gradually grows and develops, and appears in different forms and conditions, until in the degree of perfect beauty it reaches maturity, and appears in a perfect form with the utmost grace. And in the same way, the seed of this flower

which you see was in the beginning an insignificant thing, and very small; and it grew and developed in the womb of the earth, and after appearing in various forms, came forth in this condition with perfect freshness and grace. In the same manner it is evident that this terrestrial globe having once found existence, grew and developed in the matrix of the universe, and came forth in different forms and conditions, until gradually it attained this present perfection, and became adorned with innumerable beings, and appeared as a finished organization.

'Abdu'l-Bahá: The Promulgation Of Universal Peace, p. 298-299

5. ... all these endless beings which inhabit the world, whether man, animal, vegetable, mineral -- whatever they may be -- are surely, each one of them, composed of elements. There is no doubt that this perfection which is in all beings, is caused by the creation of God from the composing elements, by their appropriate mingling and proportionate quantities, the mode of their composition, and the influence of other beings. For all beings are connected together like a chain, and reciprocal help, assistance, and influence belonging to the properties of things, are the causes of the existence, development, and growth of created beings. It is confirmed through evidences and proofs that every being universally acts upon other beings, either absolutely or through association. Finally, the perfection of each individual being, that is to say the perfection which you now see in man or apart from him, with regard to their atoms, members, or powers, is due to the composition of the elements, to their measure, to their balance, to the mode of their combination, and to mutual influence. When all these are gathered together, then man exists.

'Abdu'l-Bahá: The Promulgation Of Universal Peace, p. 302

- 6. According to divine philosophy, there are two important and universal conditions in the world of material phenomena; one which concerns life, the other concerning death; one relative to existence, the other non-existence; one manifest in composition, the other in decomposition. Some define existence as the expression of reality or being, and non-existence as non-being, imagining that death is annihilation. This is a mistaken idea, for total annihilation is an impossibility. At most, composition is ever subject to decomposition or disintegration; that is to say, existence implies the grouping of material elements in a form or body, and non-existence is simply the de-composing of these groupings. This is the law of creation in its endless forms and infinite variety of expression. 'Abdu'l-Bahá: Bahá'í World Faith, p. 263
- 7. As the perfection of man is entirely due to the composition of the atoms of the elements, to their measure, to the method of their combination, and to the mutual influence and action of the different beings—then, since man was produced ten or a hundred thousand years ago from these earthly elements with the same measure and balance, the same method of combination and mingling, and the same influence of the other beings, exactly the same [p. 303] man existed then as now. This is evident and not worth debating. A thousand million years hence, if these elements of man are gathered together and arranged in this special proportion, and if the elements are combined according to the same method, and if they are affected by the same influence of other beings, exactly the same man will exist. For example, if after a hundred thousand years there is oil, fire, a wick, a lamp, and the lighter of the lamp—briefly, if there are all the necessaries which now exist, exactly the same lamp will be obtained.

'Abdu'l-Bahá: Bahá'í World Faith, pp. 302-303