Science Compiled by W. Huitt Erlangen, Germany March, 2014

1. Now consider, in this great century which is the cycle of Bahá'u'lláh, what progress science and knowledge have made, how many secrets of existence have been discovered, how many great inventions have been brought to light and are day by day multiplying in number. Before long, material science and learning, as well as the knowledge of God, will make such progress and will show forth such wonders that the beholders will be amazed. Then the mystery of this verse in Isaiah, "For the earth shall be full of the knowledge of the Lord," will be completely evident.

'Abdu'l-Bahá: Some Answered Questions, p. 64

2. If we look with a perceiving eye upon the world of creation, we find that all existing things may be classified as follows: First -- Mineral -- that is to say matter or substance appearing in various forms of composition. Second -- Vegetable -- possessing the virtues of the mineral plus the power of augmentation or growth, indicating a degree higher and more specialized than the mineral. Third -- Animal -- possessing the attributes of the mineral and vegetable plus the power of sense perception. Fourth -- Human -- the highest specialized organism of visible creation, embodying the qualities of the mineral, vegetable and animal plus an ideal endowment absolutely minus and absent in the lower kingdoms -- the power of intellectual investigation into the mysteries of outer phenomena. The outcome of this intellectual endowment is science which is especially characteristic of man. This scientific power investigates and apprehends created objects and the laws surrounding them. It is the discoverer of the hidden and mysterious secrets of the material universe and is peculiar to man alone. The most noble and praiseworthy accomplishment of man therefore is scientific knowledge and attainment.

Science may be likened to a mirror wherein the images of the mysteries of outer phenomena are reflected. It brings forth and exhibits to us in the arena of knowledge all the product of the past. It links together past and present. The philosophical conclusions of bygone centuries, the teachings of the prophets and wisdom of former sages are crystallized and reproduced in the scientific advancement of today. Science is the discoverer of the past. From its premises of past and present we deduce conclusions as to the future. Science is the governor of nature and its mysteries, the one agency by which man explores the institutions of material creation. All created things are captives of nature and subject to its laws. They cannot transgress the control of these laws in one detail or particular. The infinite starry worlds and heavenly bodies are nature's obedient subjects. The earth and its myriad organisms, all minerals, plants and animals are thralls of its dominion. But man through the exercise of his scientific, intellectual power can rise out of this condition, can modify, change and control nature according to his own wishes and uses. Science, so to speak, is the "breaker" of the laws of nature.

Consider, for example, that man according to natural law should dwell upon the surface of the earth. By overcoming this law and restriction however he sails in ships over the ocean, mounts to the zenith in aeroplanes and sinks to the depths of the sea in submarines. This is against the fiat of nature and a violation of her sovereignty and dominion. Nature's laws and methods, the hidden secrets and mysteries of the universe, human inventions and discoveries, all our scientific acquisitions should naturally remain concealed and unknown, but man through his intellectual acumen searches them out of the plane of the invisible, draws them into the plane of the visible, exposes and explains them. For instance, one of the mysteries of nature is electricity. According to

nature this force, this energy should remain latent and hidden, but man scientifically breaks through the very laws of nature, arrests it and even imprisons it for his use.

In brief, man through the possession of this ideal endowment of scientific investigation is the most noble product of creation, the governor of nature. He takes the sword from nature's hand and uses it upon nature's head. According to natural law, night is a period of darkness and obscurity, but man by utilizing the power of electricity, by wielding this electric sword overcomes the darkness and dispels the gloom. Man is superior to nature and makes nature do his bidding. Man is a sensitive being; nature is minus sensation. Man has memory and reason; nature lacks them. Man is nobler than nature. There are powers within him of which nature is devoid. It may be claimed that these powers are from nature itself and that man is a part of nature. In answer to this statement we will say that if nature is the whole and man is a part of that whole, how could it be possible for a part to possess qualities and virtues which are absent in the whole? Undoubtedly the part must be endowed with the same qualities and properties as the whole.

For example, the hair is a part of the human anatomy. It cannot contain elements which are not found in other parts of the body, for in all cases the component elements of the body are the same. Therefore it is manifest and evident that man, although in body a part of nature, nevertheless in spirit possesses a power transcending nature; for if he were simply a part of nature and limited to material laws he could possess only the things which nature embodies. God has conferred upon and added to man a distinctive power, the faculty of intellectual investigation into the secrets of creation, the acquisition of higher knowledge, the greatest virtue of which is scientific enlightenment.

This endowment is the most praiseworthy power of man, for through its employment and exercise, the betterment of the human race is accomplished, the development of the virtues of mankind is made possible and the spirit and mysteries of God become manifest. Therefore I am greatly pleased with my visit to this university. Praise be to God! that this country abounds in such institutions of learning where the knowledge of sciences and arts may readily be acquired.

As material and physical sciences are taught here and are constantly unfolding in wider vistas of attainment, I am hopeful that spiritual development may also follow and keep pace with these outer advantages. As material knowledge is illuminating those within the walls of this great temple of learning, so also may the light of the spirit, the inner and divine light of the real philosophy glorify this institution. The most important principle of divine philosophy is the oneness of the world of humanity, the unity of mankind, the bond conjoining east and west, the tie of love which blends human hearts.

'Abdu'l-Bahá: Bahá'í World Faith, pp. 242-244; Foundations of World Unity, pp. 48-50; Promulgation of Universal Peace, pp. 29-31

3. The virtues of humanity are many but science is the most noble of them all. The distinction which man enjoys above and beyond the station of the animal is due to this paramount virtue. It is a bestowal of God; it is not material, it is divine. Science is an effulgence of the Sun of Reality, the power of investigating and discovering the verities of the universe, the means by which man finds a pathway to God. All the powers and attributes of man are human and hereditary in origin, outcomes of nature's processes, except the intellect, which is supernatural. Through intellectual and intelligent inquiry science is the discoverer of all things. It unites present and past, reveals the history of bygone nations and events, and confers upon man today the essence of all human knowledge and attainment throughout the ages. By intellectual processes and logical deductions of reason, this super-power in man can penetrate the mysteries of the future and anticipate its happenings.

Science is the first emanation from God toward man. All created beings embody the potentiality of material perfection, but the power of intellectual investigation and scientific acquisition is a

higher virtue specialized to man alone. Other beings and organisms are deprived of this potentiality and attainment. God has created or deposited this love of reality in man. The development and progress of a nation is according to the measure and degree of that nation's scientific attainments. Through this means, its greatness is continually increased and day by day the welfare and prosperity of its people are assured.

All blessings are divine in origin but none can be compared with this power of intellectual investigation and research which is an eternal gift producing fruits of unending delight. Man is ever partaking of these fruits. All other blessings are temporary; this is an everlasting possession. Even sovereignty has its limitations and overthrow; this is a kingship and dominion which none may usurp or destroy. Briefly; it is an eternal blessing and divine bestowal, the supreme gift of God to man. Therefore you should put forward your most earnest efforts toward the acquisition of sciences and arts. The greater your attainment, the higher your standard in the divine purpose. The man of science is perceiving and endowed with vision whereas he who is ignorant and neglectful of this development is blind. The investigating mind is attentive, alive; the mind callous and indifferent is deaf and [p. 61] dead. A scientific man is a true index and representative of humanity, for through processes of inductive reasoning and research he is informed of all that appertains to humanity, its status, conditions and happenings. He studies the human body politic, understands social problems and weaves the web and texture of civilization. In fact, science may be likened to a mirror wherein the infinite forms and images of existing things are revealed and reflected. It is the very foundation of all individual and national development. Without this basis of investigation, development is impossible. Therefore seek with diligent endeavor the knowledge and attainment of all that lies within the power of this wonderful bestowal.

We have already stated that science or the attribute of scientific penetration is supernatural and that all other blessings of God are within the boundary of nature. What is the proof of this? All created things except man are captives of nature. The stars and suns swinging through infinite space, all earthly forms of life and existence whether mineral, vegetable or animal come under the dominion and control of natural law. Man through scientific knowledge and power rules nature and utilizes her laws to do his bidding. According to natural limitations he is a creature of earth restricted to life upon its surface, but through scientific utilization of material laws he soars in the sky, sails upon the ocean and dives beneath it. The products of his invention and discovery so familiar to us in daily life were once mysteries of nature. For instance, man has brought electricity out of the plane of the invisible into the plane of the visible, harnessed and imprisoned that mysterious natural agent and made it the servant of his needs and wishes. Similar instances are many but we will not prolong. Man as it were takes the sword out of nature's hand and with it for his sceptre of authority dominates nature itself. Nature is without the crown of human faculties and attributes. Man possesses conscious intelligence and reflection; nature is minus. This is an established fundamental among philosophers. Man is endowed with volition and memory; nature has neither. Man can seek out the mysteries latent in nature whereas nature is not conscious of her own hidden phenomena. Man is progressive; nature is stationary, without the power of progression or retrogression. Man is endowed with ideal virtues, for example intellection, volition,—among them faith, confession and acknowledgment of God, while nature is devoid of all these. The ideal faculties of man, including the capacity of scientific acquisition are beyond nature's ken. These are powers whereby man is differentiated and distinguished from all other forms of life. This is the bestowal of divine idealism, the crown adorning human heads. Notwithstanding the gift of this supernatural power, it is most amazing that materialists still consider themselves within the [p. 62] bounds and captivity of nature. The truth is that God has endowed man with virtues, powers and ideal faculties of which nature is entirely bereft and by which man is elevated, distinguished and superior. We must thank God for these bestowals, for these powers He has given us, for this crown He has placed upon our heads.

How shall we utilize these gifts and expend these bounties? By directing our efforts toward the unification of the human race. We must use these powers in establishing the oneness of the world of humanity; appreciate these virtues by accomplishing the unity of the white and colored races; devote this divine intelligence to the perfecting of amity and accord among all branches of the human family, so that under the protection and providence of God, the East and West may hold each other's hands and become as lovers. Then will mankind be as one nation, one race and kind; as waves of one ocean. Although these waves may differ in form and shape, they are waves of the same sea. Flowers may be variegated in colors but they are all flowers of one garden. Trees differ though they grow in the same orchard. All are nourished and quickened into life by the bounty of the same rain; all grow and develop by the heat and light of the one sun; all are refreshed and exhilarated by the same breeze; that they may bring forth varied fruits. This is according to the creative wisdom. If all trees bore the same kind of fruit it would cease to be delicious. In their never ending variety man finds enjoyment instead of monotony.

And now as I look into your faces I am reminded of trees varying in color and form but all bearing luscious and delectable fruits, fragrant and delightful to the inner and outer senses. The radiance and spirituality of this meeting is through the favor of God. Our hearts are uplifted in thankfulness to Him. Praise be to God! you are living upon the great continent of the West enjoying the perfect liberty, security and peace of this just government. There is no cause for sorrow or unhappiness anywhere; every means of happiness and enjoyment is about you, for in this human world there is no greater blessing than liberty. You do not know. I who for forty years have been a prisoner, do know. I do know the value and blessing of liberty. For you have been and are now living in freedom and you have no fear of anybody. Is there a greater blessing than this? Freedom! Liberty! Security! These are the great bestowals of God. Therefore praise God!

'Abdu'l-Bahá: Foundations of World Unity, pp. 60-62; The Promulgation of Universal Peace, pp. 49-52

4. Scientific knowledge is the highest attainment upon the human plane, for science is the discoverer of realities. It is of two kinds: material and spiritual. Material science is the investigation of natural phenomena; divine science is the discovery and realization of spiritual verities. The world of humanity must acquire both. A bird has two wings; it cannot fly with one. Material and spiritual science are the two wings of human uplift and attainment. Both are necessary—one the natural, the other supernatural; one material, the other divine. By the divine we mean the discovery of the mysteries of God, the comprehension of spiritual realities, the wisdom of God, inner significances of the heavenly religions and foundation of the law.

'Abdu'l-Bahá: The Promulgation of Universal Peace, p. 138

5. All blessings are divine in origin, but none can be compared with this power of intellectual investigation and research, which is an eternal gift producing fruits of unending delight. Man is ever partaking of these fruits. All other blessings are temporary; this is an everlasting possession. Even sovereignty has its limitations and overthrow; this is a kingship and dominion which none may usurp or destroy. Briefly, it is an eternal blessing and divine bestowal, the supreme gift of God to man. Therefore, you should put forward your most earnest efforts toward the acquisition of science and arts. The greater your attainment, the higher your standard in the divine purpose. The man of science is perceiving and endowed with vision, whereas he who is ignorant and neglectful of this development is blind. The investigating mind is attentive, alive; the callous and indifferent mind is deaf and dead. A scientific man is a true index and representative of humanity, for through processes of inductive reasoning and research he is informed of all that appertains to humanity, its status, conditions and happenings. He studies the human body politic, understands social problems

and weaves the web and texture of civilization. In fact, science may be likened to a mirror wherein the infinite forms and images of existing things are revealed and reflected. It is the very foundation of all individual and national development. Without this basis of investigation, development is impossible. Therefore, seek with diligent endeavour the knowledge and attainment of all that lies within the power of this wonderful bestowal.

'Abdu'l-Bahá: The Promulgation of Universal Peace, p. 50

6. According to the limitations of his physical powers man was intended by creation to live upon the earth, but through the exercise of his mental faculties, he removes the restriction of this law and soars in the air like a bird. He penetrates the secrets of the sea in submarines and builds fleets to sail at will over the ocean's surface, commanding the laws of nature to do his will. All the sciences and arts we now enjoy and utilize were once mysteries, and according to the mandates of nature should have remained hidden and latent, but the human intellect has broken through the laws surrounding them and discovered the underlying realities. The mind of man has taken these mysteries out of the plane of invisibility and brought them into the plane of the known and visible.

'Abdu'l-Bahá: The Promulgation of Universal Peace, p. 351

7. Psychology is still a very young and inexact science, and as the years go by Bahá'í psychologists, who know from the teachings of Bahá'u'lláh the true pattern of human life, will be able to make great strides in the development of this science, and will help profoundly in the alleviation of human suffering.

'Abdu'l-Bahá: A Compilation on Scholarship, p. 12

8. It is, therefore, evident that it is possible to cure by foods, aliments and fruits; but as today the science of medicine is imperfect, this fact is not yet fully grasped. When the science of medicine reaches perfection, treatment will be given by foods, aliments, fragrant fruits and vegetables, and by various waters, hot and cold in temperature.

'Abdu'l-Bahá: Some Answered Questions, pp. 258-259

9. 'Abdu'l-Bahá does often state that the medical science will much improve. With the appearance of every Revelation a new insight is created in man and this in turn expresses itself in the growth of science. This has happened in past dispensations and we find its earliest fruits in our present day. What we see however is only the beginning. With the spiritual awakening of man this force will develop and marvelous results will become manifest. Among other phases of human learning the medical science will have a place. There is a Tablet of Medicine that Bahá'u'lláh has revealed and which is translated into English. That does not contain much of scientific informations but has some interesting advices for keeping healthy.

Letter written on behalf of Shoghi Effendi: Letter dated 14 January 1932 to two believers