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CONTRIBUTION OF RUKN-E-ARḌ (EARTH) IN LIFE, AS PER UNANI PERSPECTIVE:
A REVIEW

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ABSTRACT
Everything in the universe is composed of the Arkān Arba’ā (fire, air, water and earth) in varying proportions and amounts. The elemental composition of a substance determines its particular nature and attributes, properties and action. Arkān are one of the basic fundamentals/principles of Unani system of medicine. From the Stone Age human has always been trying to know the secrets of nature, mainly the substances from which the whole universe, especially the animates have been create. According to conventional medicine human body is made up of numerous cells which are considered as the structural and functional unit of the body. Contrary to this, in Unani medicine Arkān, like the cells, are regarded as primary constituents of human body. This difference of approach between the two systems of medicine with regard to the body of animates is quite significant. It seems that the approach of Unani medicine is more realistic and yield better results in the study of animates and in their various functions. In this paper importance of rukn-e-ard in continuation of life is given. Methodology: Literature related to Rukn-e-Ard (earth) for understanding of this concept was surveyed from various translated manuscript, classical books, journals, proceedings and internet. An attempt was made to compile the views regarding Arkān especially Rukn-e-Ard (earth) and to explain the concept in context of continuation of life.

KEYWORDS: Arkan, basic constituents, Unani, Universe, Rukn-e-Ard.

INTRODUCTION
In Unani system of medicine two terms have been mainly used for basic constituents, Uṣṭuqussāt and Arkān. Uṣṭuqussāt is a roman word. Literally it means primary components or substances from which all three creatures (Nabūtāt, Haiwanāt, and Jamādat) are made. The primordial constituents in the natural world are four i.e. earth, water, air and fire. These are called as primary substances because they are not made of others substances except themselves. The interaction amongst Arkān Arba’ā, produce a states which determine the Mizāj of an individual human being or animates. It is used for measuring structural and functional states of the organs and body. Creation and genesis, of anything in this universe of Kaun wa fasaad (Genesis and distraction) are not possible without the harmonized combination of Arkān Arba’ā. Contrary to this, all entities in nature are made of these substances either directly or indirectly. For example, human body which is made up of homogenous organs. Each of them is made first from Mani (semen) and thereafter obtains nutrition from Dam (blood). Dam (blood) is formed from food which comes from animals or plant. The condition of the body of animal resembles the human body. These bodies are formed from plants, and plants are made of earth, water, air and fire.

From the above stanza, it is apparent that Arkan are the constituents or matter/substance, and they are Baseet (simple). Greek philosopher as stated above, have defined Arkān as “whose components do not differ in form, characteristics and properties but have a uniform status.” According to unani literature, Arkān is a substance which cannot be broken into such ingredients whose forms and Kayfiyāt (properties) are different from one another.

REVIEW OF LITERATURE
The proposer of the theory of Arkān Arba’ā was a Greek philosopher Empedocles (490-430 BC), who thought that all matter were composed of a combination of four primordial constituents, viz. earth, water, air and fire. Each of these was everlasting but they could be mixed in different proportion, and this produced different complex substances that were found in the universe. His very important theory was love and strife. The aforesaid
substances combined by love and are separated by strife. The changes in the universe/cosmos are not governed by any purpose but only by chance and necessity. There was a cycle: when the Arkān got thoroughly mixed by love, strife gradually separated them again; when separation completely occurred by strife, love gradually reunited them. Thus it was assumed by Empedocles that every compound was temporary; only the Arkān together with love and strife were ever-lasting.\[^{[4,7,10]}\]

It was Aristotle who, a century later, extended this doctrine that the Arkān Arba’ā are primordial constituents of cosmos. According to him, earth, water, air and fire were not absolute components of matter; they could be transformed into one another. The properties combined in pair were the mutable, natural and fundamental Kayfiyāt (qualities) of matter. According to Aristotle, fire was hot and dry; air was hot and moist; water was cold and moist and earth was cold and dry.\[^{[8,10]}\]

They can be seen over the course of the year in the seasons, and are therefore directly and intimately related to the process of growth and decay, i.e. transformation of a cyclic nature. Growth begins in the spring under the influence of moisture, ascends to the warmth of summer, moves into the dryness of autumn, and descends into the coldness of the winter. This is the most noticeable basis for consideration that the Arkān manifest through an ordered, cyclic process, from earth to water to air to fire and finally back to earth.\[^{[11]}\]

The present day life is based on organic molecules made up of from the atoms of carbon, hydrogen, oxygen, nitrogen, sulphur and phosphorus. However, primitive chemical information may have been started in mineral crystals; this idea has been developed by Cairn-Smith at the University of Glasgow. According to this theory, some clay offered a potential for genetic information in the intrinsic pattern of crystal defects. These clays proliferated and their replicating defects become more abundant. The hypothesis that if life exists on other planets or moons, it will be carbon based and dependent on water, it will also self replicating and capable of evolving. Carbon is the best element for creating macromolecules; it can form chemical bonds with many other atoms to produce biochemical complexity. This complexity consists of thousands of catalytic and structural’s proteins and nucleic acid, the informational macromolecules involve in protein synthesis.\[^{[12]}\]

According to Ibn Sinan Arkān are Baseet (simple) substance, which provide the primary components of the human body or animates. These Arkān Arba’ā have four Kaifiyat (qualities) viz. hot, cold, moist and dry. With the existence of the matter in the universe, bodies also gain specific shape, and the quantum of matter a body contains is its mass. Since the body has to do some work, it should have energy to do so. Moist or dry states of matter should be charged with heat and cold in the form of energy. In this theory mass and energy could be spelled out distinctly but in the practice the two are inseparable. In view of the physical condition as they are, we can conclude that heat is in fact the total kinetic energy possessed by the molecules of the body due to their rapid and random motion. Aristotle stated that the Haar (hot) and Barid (cold) are active; Yabis (dry) and Ratab (moist) are passive. This concept of Arkān with the heat and cold as two opposite types of Kayfiyāt similarly dryness and moistness as two opposite’s Kayfiyāt is the fundamental hypothesis which proceeds to explain the complicated phenomenon of human biology in physical terms.\[^{[13,14]}\]

Rukn-e-Ard (earth) is a heavy, dense and spherical body. Its natural place is the centre of the universe. Naturally it is at rest, and in motion around universe. Its Mizāj (temperament) is achieved due to the closeness of Rukn-e-Mā (water). The earth gives benefit to the universe in term of condensation, stability of structure and its shape.\[^{[15]}\]

Soils can adversely affect human health in several ways. The organism can be affected directly by soil ingestion or inhalation of soil particles, or by contact through wounds. Moreover the soils may contain chemical elements and substances, either naturally or through pollution, that are toxic to humans and animals. On the other hand, many soils may contain too small quantities of essential elements in plant-available form to provide adequate supply to plants, animals, and in the end, man. For every essential element there exists a range of safe and adequate human intake. Any supply in excess of this may be toxic. On the other hand intake below this range is likely to cause deficiency problems and in extreme cases death. This range of optimal intake varies among the essential elements and may be considerably narrower for some elements than for others.\[^{[16]}\]

**METHODODOLOGY OF RESEARCH**

The present study is a literary work based absolutely on explanatory, exploratory and conciliation of thoughts and doctrines. The method of collection of literary material was from three sources. The primary source of collection of materials was from classical published books and from manuscripts’ and their translations i.e. Kitab-ul-Miah, Kulliyat Nafisi, Al Qanoon Fit Tib, Firdosul Hikmat, Kitab-ul-Kulliyat, Kitabul Mukhtarat Fit Tib, Zakhira Khawarazm Shahi, Kitab Fil Anasir, etc. The secondary sources were from different types of available, published and unpublished forms i.e. journals, proceedings, periodicals, thesis reports; souvenir, dissertation, gazettes, etc. The tertiary sources were from digital information available on net. These sources were available in different libraries and the relevant materials were collected from there.

The study sought to systematize the observation of various Unani scholars regarding:

a) The nature of Rukn Arđ.

b) Necessity of Rukn Arđ.

c) Importance of Run Arđ in sustenance of life.
d) Exploring the concept in relevance to view of life in conventional basic sciences.

The collected material was then analyzed and systematized in comprehensive way. Finally the relevant aspects were elaborated in light of present and past knowledge. At some places explanatory notes were added as per need.

DISCUSSION AND CONCLUSION
The order of distinction of Tibb is its philosophies even, all the contemporary sciences have their individual identity by which they put to use and practiced. Unani system of medicine deals the natural way hence, their philosophies are very proximate to human intelligence and wisdom. Since, genesis to destruction all spheres revolve around the nature like Arkān Arba’a in the universe and consequently, in the human body or animates. Everything in the universe is composed of the Arkān Arba’a in varying proportion by mass. The evidence shows the dominance of the Arkān Arba’a in the entire world of creation and in the human body. The elemental composition of a compound determines its particular nature and attributes their properties and actions. Rukn Arḍ is a heavy, dense and spherical body. Its natural place is the centre of the universe. Naturally it is at rest, and in motion around universe. Its Mizāj (temperament) is achieved due to the closeness of Rukn-e-Mā (water). The earth gives benefit to the universe in term of condensation, stability of structure and its shape. Two primary constituents having cold temperament, which are condensed i.e. water and earth, are responsible for the existence of organ and help them to be in rest. And two constituents with dry temperament i.e. earth and fires are helpful in making organs tough. The Rukn Arḍ (earth) helps universe in making it condense, stable and morphological. During living processes and tasks dissolution occur. This is inevitable and for continuation and sustenance, loss must be replenished. Obviously, the replenishing material should be identical to the lost one, so that it can be incorporated. Among living task almost all are energy consuming and need continuous supply of energy. Whatever, material, inside living body is used to yield energy that should also be supplied continuously. Sustenance is provided from diet made from four Arkān. Apart from sustenance, diet is also used for the growth of animate objects, plants, and animal. The Arkān, in certain combinations, produce nutrients appropriate for humans, which, when consumed, generate and sustain the body's fluids or humours. The humours, in turn, generate and sustain the body's solid members. The bodily parts are generated from the first mixture of the salubrious humours, just as the humours are the first mixture of the elements. Still there is no elucidative description to know the secrets and symbols of human body. Philosophers and theorists have been worried regarding the puzzles of life they just proposed different theories to understand the evolution of Mawālīd-e-Thalatha. So, Arkān Arba’a is also one of them even Rukn Arḍ is one member of Arkān Arba’a. Here I have tried at my level best to highlight and to understand the role of Rukn Arḍ in sustenance and continuation of life.

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REFERENCES
4. Azmi AA. Basic Concepts of Unani Medicine, A critical study 1st ed. Department of History of Medicine Faculty of Medicine (Hamdard University) Hamdard Nagar, New Delhi:YNM.