

Cosmological View of Space-Time in Islam

Abdul Hameed Kamali

Cosmological Perspectives in Islam and Elsewhere

Muslims are oriented towards a view of the world and creation that draws its inspiration from the Holy Scriptures, particularly from the glorious Qur'an. The divine word about the creation of the earth and all of its creatures in six days persuades them to take the idea of time very seriously and never forget that the temporal sequence is part of the genesis and evolution of the earth, together with all of its later stages humming with life. The attribution of reality to time, therefore, forms a characteristic feature of the Muslim consciousness: "O Lord, You never created it [the world] with falsehood." In addition, the image of space, the Throne of God (*'Arsh Allah*) and his chair (*Kursi*) surround all of His creation. There is, consequently, no doubt in the Muslim's mind that space is a truth connected with all that exists. Every philosophical flight or mystic sweep, which tends to dismiss or discredit space-time as unsubstantiated fantasy, is alien to the mainstream of Islam and its authentic heritage.

In this regard, there is an important universal consideration that runs through all major traditions of thought. Conceptual activities know no boundaries in human history and permeate all big and small contiguous communities. Therefore, when the intelligentsia of the early centuries of Islam rose to their calling, it was quite natural for them to have been exposed to the streams of ideas of their epoch and utilize visions gained from them in their own ingenious ways, perhaps in concord with their own particular disposition, for they visualized their main problem emerging, as it were, from the belief structure that they held. When different threads of their theories, on analysis, are traced back to the human reflections at some points of the earlier civilizations, it does not

Time, Space, and Motion in Islam

deprive them of their creative novelty. What is worthy of merit is the way in which they treated the material from the past and the picture of the whole that they could produce with their own contributions.¹

In general, all past and contemporaneous thought yields the necessary material for the future products of human intellect in all civilizations. The Muslims are no exception to this general rule, which governs all humankind. Ever since the early days of Islam, Muslim efforts have contained great implications for the progress and enlargement of the human outlook. However, our main concern here is to discover how much they embellished the basic outlook of Islam with relevant hints, flashes, and concepts, particularly in regard to the question of space- time.

Condemned as unworthy of religious concern and the inner demands of human nature in other earlier and contemporary societies, it is very interesting to note that Demo-critic Atomism was destined to be an important part of Islamic thought from very early times. With their strong imagination, the Ash`arites could see an expansion of the outlook of Islam by reformulating it on a new foundation as a result of changing its entire fabric:

1. The fiat of the Divine Will is behind the atom forming the world and its entities.
2. Every atom is a tiny indivisible entity that enters and leaves being at the same time as a fiat of the Will.
3. Immediate creation and annihilation of the atoms perpetuate the world.

This view fits very well with the idea of time as composed of passing instance and that of space as comprised of mutually

¹ Abdul Hameed Kamali, *Space, Time and Orders of Reality* (Lahor: Iqbal Academy, 1998).

Cosmological View of Space-Time

excluding points, both being controlled by the principle of momentary creation and annihilation. Ash'arite exposition of all of matter in this manner renders both space and time as created and contingent upon the Divine Will. This view had a tremendous impact on Muslim ontology in the centuries to follow.

The intellectuals of the future, however, were impelled to develop more far-reaching theories because of the obvious limitations of the Ash'arite outlook, which could not answer many questions about different aspects of reality. It failed to conceptualize the self-evident observation of "continuity" and "movement." The perception of a thing in their analysis turns out to be an illusion so far as its continual existence is concerned. The collection of atoms forms at once, appears and disappears; then another collection of atoms is created and dies in the same way. The scene continues in perpetuity. What persists in the incessant and instant creation and annihilation of the atoms is the pattern or form which is in renewal at every repetition of instant appearance and disappearance of the thing and we are under the illusion of the latter's continual existence. The view is renowned in the history of Muslim thought as *tajadud al-amthal* (renewal of forms). The entire world being a huge aggregate of atoms is subjected to perpetual creation and annihilation with the renewal of its forms in every repetition of Divine Volition and Nolition. The sudden and repeated appearance and disappearance of the world strikes our imagination as odd. Moreover, one does not feel comfortable with the idea that one is instantly in creation and annihilation and that only the human form survives in the continued repetition of life and death, which produces the illusion of one's life in continuation. There is in this outlook no sense in the idea of the passage of time.

It is undeniable that an instant of time is such that it comes and passes away. And all the instants do likewise. Each appears and suddenly disappears forever. There is no passage at all; only a repeat of the creation and annihilation of moments; a stationary show. Therefore, there is no objective sense in "is," "was," and

Time, Space, and Motion in Islam

“will be.” The distinctions are just mental figments in the Ash`arite idea of *tajadud al-amthal*. Al-Nazzam saved time by introducing the concept of a “jump” (*tafrāh*) in its nature. Time jumps forward from instant to instant, that is, it is a movement (by jump) in its own right. If this idea of time is added to the theory of the renewal of form, the latter is changed from a static to a dynamic view. At each moment everything and all the world appear to be moving forward.

The view that time is a truth and moves on (with or without a “jump”) in its own right did not attract most of the thinkers, who recognized in movement and moving bodies an indubitable experience of the world in existence. To them, time is an abstraction from moving objects and from their anterior, posterior, or simultaneous occurrences in answer to the inquiry of when and what happened. A very well-known conspicuous object is chosen as a point of reference and other movements and happenings are projected for measuring their coincidence, duration, and change as a multiple or fraction of its motion. Our calendars are compiled by this method. The lifespans of people, dynasties, and epochs, that is, chronologies, are also compiled on its basis. Time as a measure of movement is no more than a contiguous nonsimultaneous quantity identified completely with the motion of some moving body that is known to all. Therefore, it is an abstract being and not a whim, a definite intention and application that satisfies the question of when and what happened in ordering the events. After perhaps much trial and error, humankind came to stay with the orbital motions of the sun and moon as the most easily accessible points of reference for this end. The measure is also self-reflective, that is, it can measure itself. The orbital motion of the sun (or that of the earth around the sun) may be taken as a unit. One such motion is a year. We can draw up millennia on its basis and also mark shorter spans: months, weeks, days, hours, minutes, and seconds.

This view of time as a nonsimultaneous quantitative measure of movement led thinkers to look beyond solar and lunar

Cosmological View of Space-Time

calendars, to consider the cosmos and a universal motion comprising all the worlds in existence. It must also be a perfect motion. A linear movement could not serve this purpose. The ancients, and following them, all the Hellenic and post-Hellenic thought visualized a spherical or revolutionary motion, which represented the perfection of all movements from the earliest times. The idea of the seven heavens was an important heritage, which was strengthened by the development of geometry of lines and circles in Hellenic and Greek thought. Later, the Ptolemaic system of astronomy made it an unshakable cosmology internalized in the Aristotelian and Neoplatonic schools of thought. It was a firm belief from ancient times that each moving celestial body is fixed in or belongs to a heaven and that it is the heaven moving with a revolutionary or spherical motion that produces the perception of planets, including the sun and moon in orbital motion. The moon belongs to the first heaven and the sun to the fourth heaven. Saturn and Jupiter belong to the sixth and seventh heavens respectively. Above all the starry heavens, however, is the Heaven of heavens (*al-falak al-atlas*). Below the heaven of the moon is the earth, the abode of change, making and unmaking, birth and death, etc., which forms the center of the universe encircled by heavens with the Heaven of heavens encircling all of the earth and heavens, change, movements, and bodies.

Therefore, time, according to this line of thought which declares it a measure of movement, is identified with the revolutionary motion of the Heaven of heavens championed by Aristotelianism, the Peripatetic trend of thought as it was known. This view, along with its cosmology, deeply influenced some of the most important schools of Muslim thought.² Ibn Sina, Nasiruddin Tusi, Mir Damad, and Mulla Sadra projected this view of time in their cosmologies. In Sufi thought, Ibn al-ʿArabi declared that indeed time is a name, which denotes nothing (not-

² Barakat Ahmed, "Fi Zaman" in Wahid Ishrat, *Zaman wa Makan*, (Gujarat, India: 1922), pp. 188-93.

Time, Space, and Motion in Islam

ness) in reality. According to him the problem is that of timing, that is, of when and what happened, and he solved it in the Peripatetic way by reference to the revolution of the *falak a- aflak*. Abd al-Karim al-Jili gave a very detailed exposition of the heavens and *falak al-aflak* in *Al-Insan al-Kamil* and subscribed to this view of time. There is no doubt that this Peripatetic solution, which explains time as the spherical motion of a body, however perfect the latter may be, logically denies time as a subject of predicates in its own right.

Fakhr al-Din al-Razi³ offered quite an anti-Aristotelian theory and came to the conclusion that time is one of the self-evident principles. It is distinguishable from all the movements on the basis that although many movements can happen concurrently, many times cannot be simultaneously found in the passage of time. This could be a strong argument if we think of many and not just one universe, each with its own Heaven of heavens, while all are subject to the revolutionary motion. The result would be many concurrent movements. However, the very idea of two or more simultaneous times is impossible in the flow of time.

It is a general law for all times that all responsible thought has to be sensitive to the scientific material accumulated so far. Approximately twenty-two centuries ago, the Ptolemaic system developed as an unmistakable astronomic school of thought since cosmological thinking could not ignore the astronomy of the time, notwithstanding its inclination towards Peripatetic, Neoplatonic, orthodox Muslim or Gnostic Sufi approach. In the context of our discourse, it is highly significant that the trends of thought flourishing around the Aristotelian Neoplatonic axis, represented by Ibn Sina, Mir Damad, Mulla Sadra, etc., did not require modification of their ontology of multiple heavens to accommodate the Ptolemaic astronomy. The latter covered only

³ Fakhr al-Din al-Razi, *Mabahith a-Mashriqiya*, Urdu trans. Abdul Baqi Shutari (Hyderabad, 1950), p.328. For al-Razi's main contribution to the idea of time, see *ibid.*, pp. 149-155.

Cosmological View of Space-Time

the seven heavens in their order of celestial hierarchy. The heavens of the higher order (for instance, the first, second, and third with their psyches and intellects) were beyond the reach of the Ptolemaic order.

Other varieties of Muslim thought flowing outside the streams of Aristotelian and Neoplatonic heritage were classically represented by Ibn Hazm,⁴ Fakhr al-Din al-Razi, and the Mutakallimun, together with the scholars, symbolized by Ibn al-`Arabi, Mahmud Shabistri, and Abd al-Karim al-Jili. The later eclectic outlook was reflected by Shah Waliullah, Abd al-Ali (*Bahar a- Ulum*)⁵ and the Khayrabadi school. All these thinkers were impelled to accept the Ptolemaic astronomy as part of their cosmological vision since it represented scientific knowledge.

Thus in its impact the Ptolemaic system could make no change in the cosmology of multiple heavens. Nor could it raise doubts about the idea of the heavens in revolution as a reason for the orbital motion of the planets. The outstanding feat of this system of astronomy was that it gave an order to the calculations of the heavenly motions and facilitated to an extent their procedures, which had not been possible before then. The system remained unchanged for nearly fifteen centuries. A new system was on the horizon in its nebulous formation. It was no more than pure imagination, a mathematical and trigonometric idea or assumption entailing a beautiful geometric projection, though with no pretensions of drawing a true picture of the physical world. As all of us know, the assumption placed the sun at the center and made all the planets rotate around it. It did not spare even the earth. Not only did it dislodge the earth from the center of the universe but also made it serve as a planet around the sun, with revolutions on

⁴ Ibn Hazm, *Al Milal wa al-Nihal* (Cairo: 1347 AH), vol. 1, pp. 27-38.

⁵ Abdul Ali, “*Baharul Ulum: Tanazilati Sitta*” (ix decisions), Urdu trans. Sakhawat Mirza, *Iqbal Review* (January 1969).

Time, Space, and Motion in Islam

its axis, producing its own days and nights. The importance of these amazing ideas was purely pragmatic. By accepting them, all the hackneyed complicated calculations required of the Ptolemaic model were magically simplified owing to the great progress in the theory of equations, rich exploits of trigonometrical knowledge, and widening scope for geometrical transformations. To all of that had already been made very critical and crucial contributions by the luminaries of the Muslim world. Thus, the solar system was just a method of calculation until the theory of gravitation armed with new laws of motion and inertia was advanced by Newton. The earth and planets are moving in accordance with the laws of motion. They move on their orbits around the sun because of the force of gravitation, which is in proportion to the mass of a body. The Newtonian system could now finally replace Ptolemaic astronomy as an indubitable piece of human knowledge.

What was the effect of this great change on cosmological thinking? The idea of the heavens-in-revolution up to the seven heavens was completely discarded and with it the idea of their corresponding psyches and intellects. Nevertheless, all the higher heavens, their psyches, and their intellects remained intact, serving the ontology of Aristotelian and Neoplatonic orientation. Consequently the idea of triple time (*al-sarmad*, *al-dahr*, *zaman*) as advocated by Ibn Sina⁶ and Mîr Baqir Dâmâd could not be assailed on the scientific grounds of the Newtonian system. There could be other reasons for doubting their theory.

As a general assessment, it may be concluded that the Peripatetic idea of time (a nonsimultaneous quantity, measures of movement) was widely acceptable across the different currents of thought. It could be reduced to a comparison between movements with reference to a standard and well-known movement. As such, time had no reality of its own. It would be declared then, as an

⁶ Ibn Sina, *Al-Shifâ' (al-Shifâ', al-Tabi`yya, al-Samâ' al-Tabi'i)*. ed. Said Zayed (Cairo: 1983), vol. 1, pp. 171.15-172.5.

Cosmological View of Space-Time

obstruction or as a mental construct. The Sufis and the Mutakallimun often shared these views. Ibn Rushd, Ibn Hazm, and Fakhr al-Din al-Razi were distinguished from all of them, along with the author of the treatise *Ghayat al-Imkan*, in subscribing to the view that time was real.

However, the idea of *al-dahr* was contested as something not really necessary by all those who were in disagreement with the Peripatetic and Neoplatonic approach to reality, starting from Ibn Rushd, Ibn Hazm, Fakhr al-Din al-Razi to the Mutakallimun of our time. However, it was retained in those Sufi traditions of thought that were permeated by Neoplatonic and Aristotelian ideas.

Abdul Karim al-Jili

When we observe objects in movements, it is our whim that produces for us a fictitious (whimsical) substratum (of a nonsimultaneous character), with no limits applicable to it, in which they move on for our sense or thought. It is our whim that originates this kind of container for the moving object.

Here are a few words about him. This term is of Arabic origin from philosophical psychology. Ibn Sina made no less a contribution to it. In Arabic, it is *waham*, a faculty which operates between imagination and intellection (perhaps like a golden mean). Imagination moves by images; intellections by symbols; *waham* by breaking images or with no images at all. Intellection and imagination are in touch with it. However, it requires not even symbols. In that way, *waham* is powerful enough to penetrate Reality/Truth. If you are able to get through, you will allow that our *waham* leads us nowhere but to a single (all comprehensive) reality, the One True Existence, to whom we owe our being and who owns ourselves. In this respect next we give the name of *al-dahr*, so that (by naming it as such) it is not confused in our judgment with fictitious time (that is, which has no reality of its

Time, Space, and Motion in Islam

own). The truth is that all rule belongs to God (that is, nothing is effective except God). All else is his own manifestations that we perceive through His own existence, which puts no bar on our perception of them. That is why the heavens are not perceptible to us, although their existence is no bar to our perception of the stars in them. *Al-dahr* and His external manifestations are within the all-comprehending unity of His Single Existences, which we cannot behold because of its exquisite transparency. This exposition does not in any way mean that He steps down in his manifestation (*tajalliyat*) or that His manifestations incarnate Him. No such meanings are attributable to the term *tajallul* (“external manifestation”) in this approach to reality. The *al-dahr* relationship immediately differentiates and unites the *tajalliyat* with the singleness of the One Existence, the Divine Existence. In ordinary words, the creatures are in the direct presence of God. This directness of their presence is what is contained in *al-dahr*.

Abd al-Karim al-Jili⁷ explains that *kalimat al-Hadir* (“the word of the Presence”) is the basis of all. The word (command) “be” is due to it and the thing comes into being directly in the Divine Presence. This explanation throws light on both the nature of *tajalliyat* and the *al-dahr* relationship. Divine Volition and Nolition rule over all appearances/display. For them, “be” and “they become” constitutes the supreme law.

The ideas as mentioned above are formed in a way that infinity and finitude do not apply to *tajalliyat*, nor to *al-dahr*. With regard to the eternal past and eternal future (the revolution of the first heaven from past eternity and its infinity; stock in trade in Peripatetic thought), al-Jili makes his own critical remarks: “behold, *azal* (pre-eternity, past-ness with un-defined limit) is not

⁷ Abdul Karim al-Jili, *Insan-i-Kami*, Urdu trans. Faid Miran on *Azal Abad* (Gujurat: Kitab Ghar, 1925), pp. 27-135. See also *Ruh* (Spirit), GE no. 182-187.

Cosmological View of Space-Time

predicated of existence, nor that of non-existence. It is merely a judgment (of thought) and not an external objective truth.”⁸

Al-Jili allows a particular use of the term *azal* for things/creation. The *azal* of the animal kingdom lies in the plant kingdom. The latter has its *azal* in minerals. The series goes back to hyle, which has its *azal* in tiny atoms. Nature has its *azal* in elements. The lighter entities (supreme intellect, the spirit) are the *azal* of elements. From the spirit, supreme Intellect to animal kingdom (including humankind) is constituted the ‘*alam*’ (universe), the *azal* of which is rooted in *Kalimat al-Hadir* which defines the Divine Command “be” and it becomes. Divine Existence is prior to the entire universe.

The absolute pre-eternity, then, in the light of the above usage of the term, is for divine existence. However, al-Jili has made it very clear that pre-eternity (*azal*) as a judgment (of thought) does not apply to existence, nor to nonexistence. Consequently, if we use the terms *azal* (pre-eternity) and *abad* (post-eternity), then the Divine *azal* and Divine *abad* are not different. His *abad* (post-eternity) is his *azal* (pre-eternity), and his *azal* is his *abad*. The intention of the judgment (of *azal* and *abad*) here is merely to emphasize the priority of the Divine (un-multipliable) Existence over all of his creations. According to this priority nothing partakes of His existence. The idea of *al-sarmad* is annulled in al-Jili’s thought, for the idea has its genesis in and relevance to Neoplatonic Aristotelian ontology of the Muslim *falasifa*, to whom the ultimate reality forever comprises the relative distinctions of known as knowledge and known as the absolute form of self-knowledge, the essence of the Supreme One. The relationship between those permanent distinctions within the One is *al-sarmad* (eternity). The known one, designated as the first Intellect, having in itself knowledge as its essence, also eternally repeats the form of knowledge with more plurality of distinctions in *al-sarmad* relations between them. The emanation of intellects

⁸ Ibid.

Time, Space, and Motion in Islam
with an ever-increasing plurality of permanent distinctions connected to in a *al-sarmad* network flourishes until the emanation of the world of change emerges. Changing events of this world are accidents connected in temporal relations. This is the theory the Neoplatonic Aristotelians hold. Since al-Jili does not hold this view, *al-sarmad* has no place in his system.

The thought which does not recognize this series of emanations entrenched in its eternal form of knowledge is not obliged to concede the theory of triple time. In al-Jili's ontology, the entire universe is rooted in its Spirit. All of it is in the command of "Be" for its becoming is comprehended by the *kalimat al-Hadir* (the word of the Presence). Although the spirit is not the known (self) of the One, it is mirror under the sway of the *kalimat al-Hadir*.

Ibn Rushd's Concepts

However, nearness does not denote a formal static and cold relationship. If we just examine Ibn Rushd's *Tahafut al-Tahafut*⁹ (Refutation of the Refutation), we notice that his entire effort is devoted to the theme of explaining Divine Closeness. God's proximity to each one of His creation inheres in the nature of the active principle which continuously holds creation in its fold without a *tajadudi amthal* (renewal of forms) type of illusionary continuity, which has also found expression in some very good systems and versions of Aristotelian Neoplatonism in addition to some major Sufi works. Ibn Rushd enlightens us on the active principle in the production of the universe and every thing in it. It is this activity, the summed up by al-Jili in *kalimat al-Hadir*, which fills the content of Divine Nearness to all things and deepens our

⁹ Ibn Rushd, *Tahafut Al-Tahafut*, English trans. by Simon Van Danberg, *Incoherence of Incoherence* (Oxford, UK: University Press, 1954), p. 21; pp. 34, 134 F.90, 97, 163, 88.

Cosmological View of Space-Time

vision of Divine Space and Time. In this way, all the demands of the basic Islamic creed are fulfilled by God, for He is to all, the sustaining, nourishing God, the Sovereign of life and death.

Consequently Divinity, Volitions, and Nolitions transcend their reflections in the mirror of the spirit and that of the world, which comes into being under it. The universe down to the world of change is an image or reflection (as in a mirror) of God and does not share His divinity, which is absolutely transcendent. It is connected with Him in the relation of “being” and “becoming.” These ideas are also the keys to Sheikh Ahmed Sir Hindi’s ontological outlook. Eternal time or accidental chronological time is irrelevant to this relationship of “being” and “becoming” between God and the universe. However, accidental time applies to the regular series of becoming in the different stages of evolution of accidental things from their pre-eternities, as explained earlier. They are but mirrors of the higher levels of the universe.

Shah Waliullah’s Time Concepts

The external manifestation (*tajalliyat*) mirrored in *Al-Shakhs al-Akbar* (the Great Individual) is greater than any of its kind with reference to all else but God, the Most High and Glorious. From this point of view, it is designated as the Great Display (*Tajalli A`zam*), with its distinguishing features. The *Shakhs-al-Akbar* is its image (as in a mirror). The Divine Life, Will, Power and *al-sarmad* are absolutely identical with God. His every manifestation (*tajalli*) projects His Will, Power, Life and *al-sarmad* (eternity) in its own way. *Tajalli A`zam* also projects (displays) the same in the way unique to it. In turn, the *Al-Shakhs al-Akbar* reflects all of that in *al-dahr*, which in itself is an image of the Divine *sarmad*, formed as its reflection. All that *al-dahr* contains is universal. Life, will, and power are universals in complete identity with *A-Shakh -al-Akbar*. Our world of temporal sequences in itself is the image or reflection of the *Al-Shakhs al-Akbar*. The time series, which permeates our world, are images of

Time, Space, and Motion in Islam

al-dahr. All events appearing in Time are images of the universals, the denizens of *al-dahr*. Nevertheless, this does not mean predeterminism. For example, “life” in *al-dahr* is reflected in biological evolution with its own time sequences on earth. So also are will and power as universals in *al-dahr* reflected in all the sequences, episodes, and histories of the world, which follow temporal seriality in its developments. Therefore, predeterminism is ruled out. It is not proper in developing an appreciation for this approach to use the distinction of things and their essences. The universals in *al-dahr* as discernible in *Al-Shakhs al-Akbar* are not essences, and the *shakhs* (individual) is not made of essences. They and the *Al-Shakhs al-Akbar*, with whom they are identical, are just existential reflections of the *Tajalli A'zam*. They have existence in *al-dahr*. In comparison with them, the events (things) of our world have a temporal existence. In the vision of *Al-Shakhs al-Akbar* we have to discard the “thing and essence type” of essentialism.

Shah Waliullah¹⁰ is an eclectic thinker and is famous for reconciling different views of reality. According to him, the true singular (*ahad*) is above all names and attributions. No form or pattern is required of Him to exist. His self-knowledge is direct and above all patterns. Perfect existence, however, cannot be thought of without life, knowledge, power, and will. They are all absolutely identical with His Existence, so much so that even names denoting them are inadmissible in His Singularity. He is symbolized (by us) by the proper name of Allah (the God). He is *al-sarmad* (Eternal). *Al-sarmad* is absolutely identical with Him, just like power, will, knowledge, and life.

¹⁰ Ali Fiqri, “*Shah Waliullah Ka Nazarya Zaman wa Makan*,” *Iqbal Review* (January, 1970), pp. 25-36.

Cosmological View of Space-Time

Thus, Shah Waliullah¹¹ raises the idea of *al-sarmad* from the Neoplatonic Aristotelian idea of a Trimodal God (enclosed in the form of knowledge with three relative distinctions in a *sarmad* relationship within him) to the level of God above all plurality and patterns, names and attributes. *Al-sarmad* as the supreme category of time is identical with His own Existence, and none can share it with Him, not even names and attributes.

Shah Waliullah offers his own view of the term *azal* (pre-eternal). Pre-eternity, he says, does not mean a particular time from which a temporal series starts. *Azal* in its sense is above that of time and space, applicable to material bodies and the physical world. *Azal* is free from all such considerations and all shades of materiality. In it is signified the relationship between God and creation, between being and becoming. The relationship is *azali*, that is, pre-eternal. *Makan* (space), which is occupied by physical things, is an exemplification of pre-eternity.

The supreme external manifestation (*Tajalli A`zam*)¹² is the ground of the universe (the world of “becoming,” *alam takwin*) in the mode of being and becoming. The *Al-Shakhs al-Akbar*, thereby comes into being with complete and full exemplification of the *Tajalli A`zam*. It is *Shakhs* (individual) because the Divine supreme *Tajalli* is the living, external manifestation with all the attributes of life that it exemplifies, and it is *Akbar* (Greater than all else), because the *Tajalli* itself is *A`zam* (Superior to all). The *Al-Shakhs al-Akbar* (Great Individual) has all the possibilities of becoming in their totality. Consequently, *al-dahr* comes into being along with the Great Individual as the container of all the possible essences (that is, the essences of all the things in becoming)

¹¹ Shah Waliullah, *Sattat*, trans. Syed Mohammed Mateen Hashmi (New Delhi: Maktaba Al-Hanat, 1990), p. 89.

¹² Shah Waliullah, *Hujatullah al-Balaghat*, trans. Abdul Haq Haqqani (Deoband, India: Darul Kitab, 1987), p. 23.

Time, Space, and Motion in Islam
encircling the entire universe. These essences, therefore, have
wujûd al-dahr (eternal existence).

Al-dahr has two exemplifications. One is time with its days and nights in which this physical world passes from the past to the future. The other exemplification is the time of the Hereafter, the time of Hell and Paradise, which we will witness hereafter.

Shah Waliullah holds a substance-like view of space and time. Thus time is in the Presence of God as a *jawhar* (substance), for all things are in the presence as a *jawhar* (substance). A *jawhar* is an entity irreducible to any other entity.

Shah Waliullah's reinterpretation of the idea of *al-sarmad* and *al-dahr* as distinguished from that of the *falasifa* (Muslim Neoplatonic Aristotelians) found wide acceptance in the learned Sufi circles. Khwaja Mir Dard¹³ also follows this thought in his '*Ilm al-Kitab*. The Shah's idea of time as real (and substance) is not so widely held by the Sufis and the Mutakallimun. They usually followed Peripatetic thought. However, by denying eternal motion (say of the Heaven of Heavens), the Mutakallimun advocated the idea of finite movements and thereby inferred the concept of time from their comparison as being an abstract object with limits.

The most important point is that Shah Waliullah pleaded the realism of time and space as irreducible to anything else. In this way, he is in line with the classical Muslim thinkers like Ibn Hazm, Fakhr al-Din al-Razi, etc.

Ghayat al-Imkan fi Dirayat al-Makan

¹³ Khwaja Mir Dard, Section "On the Idea of Divine Names" in *Ilm al-Kitab*, (Delhi, Dar al-Kitab, 1989), p.122 F.

Cosmological View of Space-Time

It appears that all past thought identified the sphere of space and time with the realm of physical bodies. It was the author of the treatise “*Ghayat al-Imkan fi Dirayat al-Makan*” who freed those ideas (space and time) from material and physical domains of reality with the assertion that up to almost the third century AH, the Ummah of Islam entertained a very wide view of space and time, generalizing it to all the levels of reality.

The most fertile vision of the treatise “*Ghayat al-Imkan fi Dirayat al-Makan*” is that everything has its own space and time. And all space(s) and time(s) may be ordered with reference to “farness” and “nearness.” A higher space-time order is one in which is bridged the distance between the far and the near. Divine Time is all nearness and the time of physical bodies is farness. The latter may extend to unending distances.

Far and near: both are relations in between at least two objects. Nearness, consequently, does not mean unity, assimilation, or amalgamation. It is still a distance. We form a mental image of it in terms of the present. In the treatise, Divine Time (all nearness) is also significant in this human way and it is like an instant twinkling of an eye or even less. This is an important point for some to grasp of Divine Time as well as that of Divine Space, which may not appear more than a point. All other baffling descriptions in this regard are subjected to these limitations of human vision.

Concluding Remarks

Since ancient times efforts have been made to develop a view of space on the basis of geometrical constructs. Points, lines, angles, volumes, squares, cubes, etc. are the best fruits of geometrical imagination and all of them are constructions. The idea of body (volume) is also an ideal construct. Underlying all of these ideas is a very plastic medium, so to speak, the infinitely

Time, Space, and Motion in Islam

divisible continuum. Zeno's paradox is quite true in it. By projecting geometrical constructs on it, an ideal space is projected before the human mind. Real space transcends this ideal state. Its principle is an indivisible continuum, which cannot survive in Zeno's paradoxes and space, reveals itself as a system of discontinuities. A real thing in it resists and rebounds. Its being is discontinuity of a continuum. Its multilateral relationship with the real things surrounding it forms its space, and it is a contiguous system covering all of the things, real things at its level. Remove the things, and it is also removed. Temporality lies in the nature of the things in space (rather than in spatial relations). It is made of all the past series in the constitution of an existing thing towards the future of it. Therefore time appears as an aspect of all spatial systems.

According to our current scientific knowledge of astrophysics, the physical universe is a four-dimensional system. The idea of dimensions is undoubtedly taken from the idea of coordinates (projecting on a point), although for the purpose of space, as discussed here, it shall have to be divested of all the shades and implications of divisible continuum (as defined for instance in the idea of a compact series). When human beings are considered physical objects, they are things of four dimensions: three spatial and the fourth temporal. However, they are more than that. They also have emotion, temper, will, and determination. The four dimensions cannot contain a human being entirely. The animal kingdom and, who knows, the plant kingdom too, require a higher space, consisting of at least five dimensions. In this way, space systems of more and more dimensions/coordinates open before our mind. Other ideas logically follow. A system of two coordinates/dimensions becomes a subset of three coordinate systems. So the latter becomes that of a four co-ordinate system. All lower orders of space-time are contained in higher orders of space-time and appear as their subsets. Social orders may require higher orders of space-time perhaps; a system of six dimensions and geometry fail to represent them. All the limits, beginnings, and

Cosmological View of Space-Time

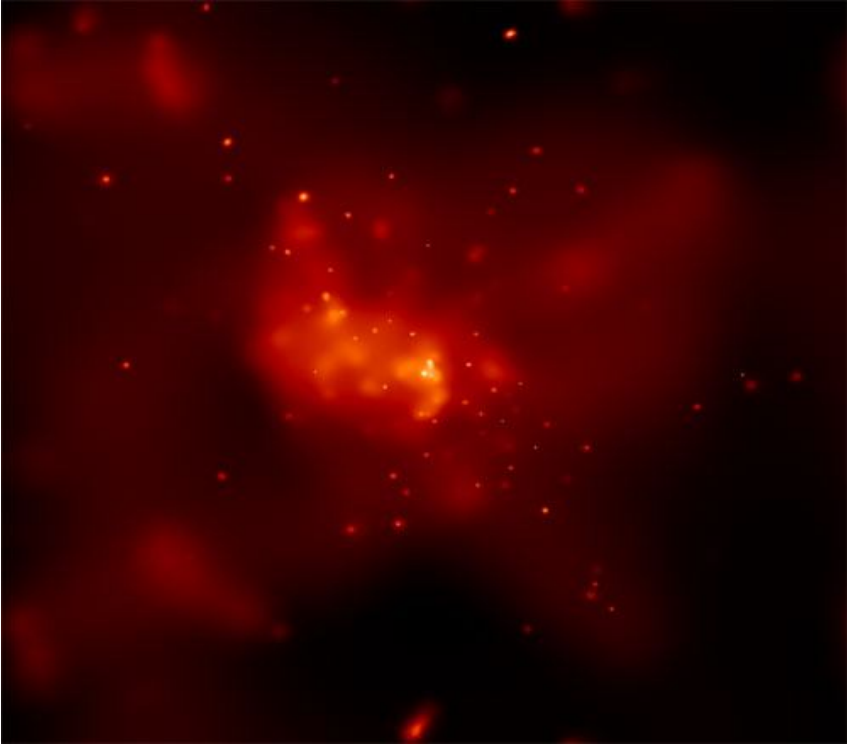
ends of the lower systems of space-time are simply subsumed in the higher systems. In brief, the Day of Resurrection, to this writer, is a space-time system of eight dimensions. Therefore, all the events and entities, time(s), and space(s) of lower orders are within the span; the physical universe, the human world with all of its history, etc.

Divine Time and Space have many more dimensions, far more as the Divine Nearness is to all of His creation. The universe is not one. There may be many. It lies in possibilities. A universe may be such that it comes into being with seven or eight dimensions and may have its Day of Resurrection in a space-time order of twelve dimensions. So to be honest, no one knows the actual dimensions of the space-time of Divine Nearness to all of his creations.

It is the space-time of this Nearness that is known as Divine Time and Divine Space. God transcends it. He rules over all eternities and all infinities and is yet near to them.¹⁴

¹⁴ Kamali, *Space, Time and Orders*, pp. 117, 128, 175.

Time, Space, and Motion in Islam



0204flare_xray_red: Sagittarius A - The Center of our Galaxy: This false-color image shows the central region of our Milky Way Galaxy as seen by NASA's Chandra X-ray Observatory. The bright, point-like source at the center of the image was produced by a huge X-ray flare that occurred in the vicinity of the supermassive black hole at the center of our galaxy. This central black hole has about 2.6 million times the mass of our Sun and is associated with the compact radio source Sagittarius A. During the observation the X-ray source at the galactic center brightened dramatically in a few minutes, and after about three hours, rapidly declined to the pre-flare level. The rapid variation in X-ray intensity indicates that the flare was due to material as close to the black hole as the Earth is to the sun. This is the most compelling evidence yet that matter falling toward the black hole is fueling energetic activity in the galactic center. <http://www.msfc.nasa.gov/news/photos/photogallery/chandra/chandra5.htm>