The Phenomena of Divine Light

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Introduction

Light is the most beautiful phenomena on the Earth. We live in the light and because of the light. There are no creatures that can live without light. When we look at the light, there we would find purity, chastity, mystique and beauty. A small dot of light can obliterate the dense darkness. The light is clear, but it saves and holds the potential of beauty with a beautiful colour, called a rainbow. "The light shines in the darkness, and the darkness did not overcome it." (John 1:5)

Pope Paul VI in The Declaration on The Relation of The Church to Non-Christian Religions, NOSTRA AETATE, October 28, 1965, said that **Catholic Church task is promoting unity and love among men, indeed among nations.** Church considers that we are One as the community of all peoples, one their origin, for God made the whole human race to live over the face of the earth. God is the final goal. His providence, His manifestations of goodness, His saving design extend to all men, until that time when the elect will be united in the Holy City, the city ablaze with the glory of God, where the nations will walk in **HIS LIGHT**. What does it mean and which His Light?

The Profession of Catholic Faith - The Nicene Creed is said "We believe in one God, the Father, the Almighty, maker of heaven and earth, and of all that is, seen and unseen. We believe in one Lord, Jesus Christ, the only Son of God, eternally begotten of the Father, **God from God, Light from Light**, true God from true God, begotten, not made, one in Being with the Father. Through him all things were made. For us men and for our salvation, he came down from heaven." Thus, what is Divine Light?

In theology, Divine Light is an aspect of divine presence, specifically an unknown and mysterious ability of God, angels, or human beings to express themselves communicatively through spiritual means, rather than through physical capacities. I want to elaborate especially about the divine light in every religion. What do they say about the phenomenon of divine light and how do they appear to human beings? Thus, I don't want to talk or argue about the concept of God, but I want to elaborate the phenomenon and essence of God that appears before humanity through the divine light.

The major religions of the world have recorded numerous accounts of this phenomenon. The human encounter with the phenomena of divine light and the happiness surrounding that encounter has been well documented in religious sacred books. What do they say about this phenomenon? Because, from the dawn of humankind, light has been a source of wonder, appearing in stories of creation and even being worshipped like a god. Thus, in this dossier, the phenomenon of Divine Light is explained in three chapters.

The first chapter speaks about The Divine Light as a Natural Phenomenon, Metaphysic Phenomenon, and as the Mysterium Tremendum et Fascinans. In this chapter, I will speak

¹ Catechism of the Catholic Church, http://www.vatican.va/archive/ccc_css/archive/catechism/credo.htm, (access: 01.10.2017).



of the phenomenon of divine light from a philosophical viewpoint. In Latin term, it has two words to describe light, lux and lumen, denoting both the material and the metaphysical aspects of light. Robert Grosseteste, Bishop of Lincoln and the first Chancellor of the University of Oxford in the 13th century said that the challenge of understanding light's nature was critical to understanding the world. He extols the primary importance of light as the first corporeal form. For light of its very nature diffuses itself in every direction in such a way that a point of light will produce instantaneously a sphere of light of any size whatsoever. Light is essential to people all over the world and it was one of the first topics studied by ancient philosophers. Greek philosophers like Empedocles asked whether light came from "an object or the eye that was seeing it, but nobody knew what light actually was." But, experiencing of Divine Light is experience of the 'numinous' (the spiritual dimension), the utterly ineffable, the holy, and the overwhelming. The 'holy' is manifested in a double form: as the mysterium tremendum (mystery that repels), in which the dreadful, fearful, and overwhelming aspect of the numinous appears, and as the mysterium fascinosum (mystery that attracts), by which humans are irresistibly drawn to the glory, beauty, adorable quality, and the blessing, redeeming, and salvation-bringing power of transcendence.

The second chapter is the main chapter, it speaks about the Phenomenon of Divine Light in various religions and I will speak of the phenomenon of divine light from a teological, mistical, and religious viewpoint. From India, I took the reference of Hinduism and Buddhism in understanding the phenomenon of divine light. From the plains of China, there are two major religions that influence the thinking and way of life of society in general, Daoism and Confucianism which speak of the experience of divine light. In the Abrahamic religions, I find many records of divine light in Islam and Christianity.

Because light remained a complete mystery, it became for many religions a symbol of all that is holy. The prayers of a Hindu philosopher include: "Lead me from untruth to Truth. Lead me from darkness to Light. Lead me from death to Immoratality." In Bhagavad Gita, Ajuna saw the light like the splendor and the radiance of Supreme Spirit. The Old Testament used light as a metaphor for God in a couple of ways: "On Mount Sinai, Moses encountered the brightly burning bush from which God spoke to him. Not only that, but every sacred person in the biblical story is depicted with an aura of light that makes them glow (Exod. 19)" In Arabic, the word manara means lighthouse or "place of light." It is from this word that the minaret, the tower from which a muezzin calls Muslims to prayer, gets its name. That's because light is a divine force in Islam. The Qur'an says that "God will lead the faithful from darkness to the light." It also says that "He will bestow on you a light to walk in" and "the man from whom God withholds His light shall find no light at all."

² Cf. KENNETH R. YEAGER, Light and Life, Oxford University Press, Oxford, 2002, p. 146.

³ Brhadaranyaka Upanisad: 1, 3, 28 in ALANNA KAIVALYA, Sacred Sound, Discovering the Myth and Meaning of Mantra & Kirtan, New World Library, California, 2014, p. 48.

⁴ Cf. MARK MAH, Garden of the Soul: Exploring Metaphorical Landscapes of Spirituality, Wipf and Stock Publisher, Oregon, 2014, p. 92.

⁵ Cf. TREVOR J. MARCHAND, Minaret Building and Apprenticeship in Yemen, Curzon Press, Richmond, 2001, p. 40.

⁶ Cf. MUHAMMAD B. BEHBUDI, The Quran: A New Interpretation, Curzon Press, Richmond, 1997, p. 212.

⁷ Cf. Dr. MUHAMMAD TAQI-UD-DIN AL HILALI & Dr. MUHAMMAD MUHSIN KHAN,

Holy Quran Translation in English, King Fahd Complex, Madinah, 1995, p. 744.

⁸ Cf. SANIYASNAIN KHAN, The Best Loved Prayers from the Quran, Goodword Books, Delhi, 2006, p. 62.

In fact, one of the suras, or chapters, of the Qur'an is devoted entirely to light. It's called alnur or The Light and says that "God is the light of the heavens and the earth." 9

In the Middle Ages, Thomas Aquinas was the predominant thinker in Catholic theology, he believed that "beyond the darkness of the night sky lay a radiantly blazing paradise. It is called the brightness of glory. As a result, jewels, gold and even normal mirrors were seen as holy because they reflected the light of God." ¹⁰ In the introduction to the Gospel according to John the Apostle, we find that there was a man sent from God whose name was John (the Babtist) as a witness of Light. He stated that God is "spirit" (John 4:24), and that he is "light" (1 John 1:5, 7; cf. 1 Tim. 6:16). God is also "He who lives par excellence" (Matt. 16:16, 63; John 6:51; 1 John 1:1-2). Above all, God is "love" (1 John 4:8, 16). Jesus spoke to the people and said, "I am the light of the world. Whoever follows Me will never walk in the darkness, but will have the light of life" (John 8:12).

The third chapter explain the relevance of phenomenon of divine light as a bridge for interreligious dialogue. We know that there is a divine light in some religions that provide enlightenment and lead the soul to God.

"The spiritual visions of man confirm and illumine each other. We have the cosmic greatness of Hinduism, the moral issues of Zoroaster, the joy in Truth of Buddha, the spiritual victory of Jainism, the simple love of Tao, the wisdom of Confucius, the poetry of Shinto, the One God of Israel, the redeeming radiance of Christianity, the glory of God of Islam, the harmony of the Sikhs. Great poems in different languages have different values but they all are poetry, and the spiritual visions of man come all from One Light. In them we have Lamps of Fire that burn to the glory of God." 11

By finding at the religious experiences of traditions other, we would see how others could develop different ways of looking at a common spiritual source. In our time, when day by day mankind is being drawn closer together, the Church examines more closely her relationship to non-Christian religions. In her task of promoting unity and love among men the Church recognises that, one is the community of all peoples, one their origin, for God made the whole human race to live over the face of the earth. One also is their final goal, God, His providence, His manifestations of goodness, His saving design extended to all men, until that time when the elect will be united in the Holy City, the city ablaze with the glory of God, where the nations will walk in HIS DIVINE LIGHT.

1. The Phenomenon of Divine Light

A phenomenon (Greek: φαινόμενον, phainómenon, from the verb phainein, to show, shine, appear, to be manifest or manifest itself, plural phenomena) is any thing which manifests itself. ¹² Phenomena are often, but not always, understood as 'things that appear' or 'experiences' for a sentient being, or in principle may be so. The term 'phenomena' has come to mean 'what is experienced is the basis of reality'. ¹³ Thus, is the phenomenon of Divine Light real, comprehensible, rationale and can be justified?

¹³ EINO KAILA, Reality and Experience: Four Philosophical Essays, D. Reidel Publishing Company, London, 1979, p. 120.



⁹ Cf. MIR VALIUDDIN, The Quranic Sufism, Motilal Banarsidass, Delhi, 2002, p. 63.

¹⁰ Cf. MATTHEW LEVERING & MICHAEL DAUPHINAIS (eds.), Reading Romans with St. Thomas Aquinas, The Catholic University of America Press, Washington, 2012, p. 266.

¹¹ JUAN MASCARO, The Bhagavad Gita, Penguin Books, Harmondsworth, 1962, p. 35.

Dictionary of Visual Discourse: A Dialectical Lexicon of Terms, 2011, http://search.credoreference.com/content/entry/ashgtvd/phenomenon_phenomena/0, (access:15.10.2017).

The Critique of Pure Reason (1781) is a book by Immanuel Kant that is considered one of the most influential works in the history of philosophy. And the explains what he means by critique of pure reason, I do not mean by this a critique of books and systems, but of the faculty of reason in general, in respect of all knowledge after which it may strive independently of all experience. The Critique is an investigation into the foundations and limits of human knowledge, and the extent to which the human mind is able to engage in metaphysics. He expounds new ideas on the nature of space and time, and claims to provide solutions to Hume's scepticism regarding human knowledge of the relation of cause and effect, and René Descartes' scepticism regarding knowledge of the external world.

According to Kant's doctrine, the human mind shapes and structures the world of experience, making knowledge possible. ¹⁶ Knowledge independent of experience Kant calls 'a priori' knowledge, while knowledge obtained through experience is termed 'a posteriori'. ¹⁷ According to Kant, a proposition is a priori if it is necessary and universal. A proposition is necessary if it could not possibly be false, and so cannot be denied without contradiction. A proposition is universal if it is true in all cases, and so does not admit of any exceptions. Knowledge gained a posteriori through the senses, Kant argues, never imparts absolute necessity and universality, because it is always possible that we might encounter an exception. ¹⁸ Thus, the term phenomenon refers to any incident deserving of inquiry and investigation, especially events that are particularly unusual or of distinctive importance. Kant's point of view appears to have been that our investigation of the world begins with appearances, or phenomena, including the phenomenon of light.

Phenomena of Divine Light are the starting point for the investigation of the world. What needs to be explained is how we happen to have these phenomena. We actively seek useful information about our world. Phenomena of light are simply our experiencing the world, as mediated by the information that we have actively acquired. What remains to be explained, are the procedures needed for us to acquire that useful information.

1.1. The Divine Light as a Natural Phenomenon

Light carries information about our surroundings, from distant stars and galaxies to the cells in our bodies to individual atoms and molecules. "It is the basis of many technologies that enhance our quality of life: Internet is powered by light; the most precise clocks in the world rely on light; the tiniest objects, from individual atoms, to live biological cells, can be observed and manipulated using light; images and displays are everywhere. Light reveals the full strangeness of the quantum world and inspires our imagination about the world." ¹⁹

Light gives life and plays a vital role in the biological and chemical processes that underpin our and our planet's existence. Light frames our perception of our surroundings. We use it for illuminating our environment, either naturally, by the Sun or Moon, or artificially. Without light, we can not live.

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¹⁴ GRAHAM BIRD, The Oxford Companion to Philosophy, Oxford University Press, New York, 1995, p. 439.

¹⁵ IMMANUEL KANT, Critique of Pure Reason, Norman K. Smith (trans.), Second Edition, Palgrave Macmillan, New York, 2007, p. 9.

¹⁶ JACK B. ROGERS & FORREST BAIRD, Introduction to Philosophy: A Case Method Approach, Wipf and Stock Publisher, Eugene-Oregon, 1998, p. 110.

¹⁷ CPR (The Critique of Pure Reason), A2/B2.

¹⁸ CPR (The Critique of Pure Reason), B4.

¹⁹ IAN WALMSLEY, Light, A Very Short Introduction, Oxford University Press, New York, 2015, p. xv.

"Light has a very fundamental role in making possible life itself. The primary source of energy for the Earth is ultimately the Sun. And the means by which energy is transmitted from the Sun is light, both the visible components we can see, as well as some invisible ones we cannot see directly. Think, for example, lying on a beach or sitting out in the garden in the sunshine: the warmth we feel is a consequence of some of the 'invisible light' radiating from the Sun. This is just one example ofthe physiological effects of light. The Sun's light has over the course of millions of years enabled the formation of the current biosphere and the geology that provides other sources of energy. Neither coal nor oil could have been made without energy from the Sun. And our use of these resources is changing the way in which light from the Sun affects our planet. Some of the invisible light from the Sun - ultraviolet light - is still absorbed by the Earth and its atmosphere. But the other invisible part - infrared light - is reflected back by atmospheric gases. By the same mechanism, infrared radiation is trapped on the planet, contributing to increased planetary surface temperature." ²⁰

A good place is with some of the things commonly associated with light: brightness, intensity, colour, and warmth. There is also a relation between Light, Space, and Time. Light defines space by its propagation instantly throughout the universe. Without light, there is no space, and therefore no forum in which events can take place. Matter (substance, element, ingredient, constituent, factor, particle), and thus the spatial extension of objects, are coupled to light, but cannot be separately defined. This intimate connection between light, space, and matter is explained by Newton and Einstein.

"For Newton, space neither admitted nor demanded definition. He thought of space as a pre-existing entity, a sort of theatre in which events played themselves out. Large-scale motion of bodies in the heavens was integral to his idea of a set of universal laws. Einstein by contrast, places light at the centre of space. For him, it defines space and time by virtue setting the speed limit for signals sent from one part of the universe to another. The fact that there is a finite maximum speed turns out to make space and time inseparable. Einstein's theory of relativity teaches us that we cannot think of one without thinking of the other. This is because our perception of space and time is based on local measurements of distances and time intervals. These measures appear differently to those moving relative to us, because of the speed limit imposed by light." ²¹

According to the standard scientific 'Big Bang' model of the origin of the universe, the Big Bang was the explosive expansion of a 'singularity', a pre-existent primary state consisting of an ultra-dense concentration of mass-energy in an infinitesimal space.²²

"A singularity is a mathematical function of the theory of Relativity, and the possibility of its actual existence only derives from its mathematical existence. That is why physicists have been so ready to accept the idea of a singularity as the prelude to 'the Big Bang', but have been so unwilling to give consideration to the theory of the 'creation' or 'emanation' by a transcendent Mind of a sudden initial burst of Energy that subsequently resulted in the formation of expanding matter by a process of energy-matter conversion. The answer is that science, by definition, simply does not allow for the possibility of a supernaturally initiated cosmogony. The singularity theory provides an ideational framework that is currently in disarray, and greatly in doubt even by its originators, with no

²² Cf. "Researchers Show That Black Holes Do Not Exist", by Thania Benios; in PhysOrg Newsletter (24 September), 2014: http://phys.org/news/2014-09-black-holes.html., (access: 02.11.2017).



²⁰ WALMSLEY, p. 1-3.

²¹ WALMSLEY, p. 83-84.

legitimate alternative to take its place. It might have been Divine Energy that started it all."²³

What kind of energy could result in a material universe? We must ask, then, mightn't it have been an immense burst of what we have come to call 'electromagnetic radiation' - in other words, Light - that produced this vast universe of forms? Is it possible that all the matter in this universe originated from a spectacularly large burst of high- energy light, or electromagnetic radiation, but is such an evolution, from light to matter, possible?

There was a supernaturally produced burst of high-energy light, and examine whether or not the existence of space-time and this material universe could possibly have formed and evolved from that initial Energy burst. "It is possible and highly probable that, in the very earliest moments of the Big Bang, in that unimaginably hot, spreading radiation field, the densely packed, intensely active, high-energy photons, in the process of colliding with one another, transformed into mass-bearing particles and antiparticles."²⁴

If it was a sudden pulse of Divinely Produced Energy that created the universe, it would have to have been a tremendous amount of Energy. We know this because of Einstein's formula which declares that the amount of initiating Energy that would account for all the mass in the universe would have to have been the product of all the mass in the universe times the speed of light squared. "a thousand suns appeared simultaneously in the sky, their light might dimly resemble the (radiant) splendor of that Omnific Being." ²⁵

Such an immense burst of electromagnetic energy would no doubt follow the same progressive development as that suggested by the physicists who advocate a 'natural' (i.e., material) origin of the universe: In the first moments, the Energy-Matter and Matter-Energy transformations would alternate in rapid flux. Expanding at the speed of light, some of that Energy would be converted to particle-antiparticle pairs, most of which would annihilate, and some of the remaining matter in the form of quarks, along with their interacting gluons (what is called a quark-gluon plasma)²⁶, would eventually combine to form protons and neutrons; other particles, the free electrons, would inevitably bond to the protons, forming the element, hydrogen.

These hydrogen atoms would collect in the form of a gas; and this gas, reaching a large enough volume, would be affected by a gravitational force (that Einstein says is a function of the geometry of spacetime), which, in turn, would draw such gas nebulae into a density great enough to initiate nuclear fusion; and thus stars, and whole galaxies of stars would be born. In the interior furnaces of these stars, heavier elements would be created; and when the cores of the stars would collapse, they would explode into space; and their remnants would form into a second generation of stars, like our sun and its satellite planets. And, of course, it would all have begun with a great burst of light. Is such a scenario possible? Or plausible? How could such a thing as an immense and awesomely productive burst of light come to be where before there was nothing? Can a burst of light occur without a physical

^{150.000} times hotter than the center of the Sun. (Cf. "Brookhaven National Laboratory", reported by Physorg Newsletter, February 15, 2010; www.physorg.com.



²³ SWAMI ABHAYANANDA, The Phenomenon of Light, Reflections on The Soul, Atma Books, 2010; https://www.academia.edu/34625466/The_Phenomenon_of_Light.odt, (Access: 02.11.2017).

²⁴ ABHYANANDA, Op. Cit.

²⁵ Bhagavad Gita, XI.12, PARAMAHAMSA YOGANANDA, God Talks with Arjuna: The Bhagavad Gita, Self-Realization Fellowship, Los Angeles 1995, p. 818.

²⁶ This quark-gluon plasma (QGP), theorized to have been produced in the first few microseconds of the 'Big Bang', was recently reproduced at the Brookhaven National Laboratory by colliding gold ions at nearly the speed of light in their Relativistic Heavy Ion Kollider, a 2.4 mile-circumference 'atom smasher', thereby creating a 'liquid matter' (QGP) at a temperature of 'about 4 trillion degrees Celsius' - about

source? Is it the pure energy of light we speak of, or a super- dense entity (singularity) about to explode, or a fluctuating quantum vacuum spontaneously sprouting universes. This universe is a product of the Divine Energy of God breathed into existence by His loving grace and imbued with His Divine Consciousness.

"I am first; I have always been. I am the great Mind whom you call 'God'. And it is my breath of energy that makes up this material universe. By 'energy', I mean Light-energy. My breath is Light. It is what you call 'Gamma radiation', the very most powerful force in the electro-magnetic spectrum. It is that high-frequency Light by which I have created your world."²⁷

"The Light-Energy that emanated from God (the Divine Mind) at the moment of Creation around 14 billion years ago was, and is, a spiritual substance. The material universe which developed from it is still a spiritual substance, though we call it 'material' due to its form, mass, and apparent substance. The differentiation between spiritual and material is imaginary, is non-existent; matter is Light-Energy, and Light-Energy is God's breath. Nothing exists but God, whether manifest or unmanifest. All matter - all that we experience as the world about us, including ourselves - is born of God's Divine Light. Our bodies are formed of the 'matter' that was produced from that Divine Light, and therefore consist of a Divine substance. Our bodies are God's Energy manifest in form. In the soul's experience of union, it is clearly seen that all that exists in this world is God's manifestation; and the soul cries out:

'O my God, even this body is Thine own!

Though I call to Thee and seek Thee amidst chaos,

Even I, who seemed an unclean pitcher amidst Thy waters, Even I am Thine own." 28

From the initial 'Great Radiance' comes all that exists as material objects and all that exists as active forces in the universe today and for all time. Every exploding star, every movement of gaseous nebulae far-off in space, every object and every motion, including the blinking of our eye, has its source and origin in that initial burst of light. According to the Law of the conservation of mass-energy, the First Law of Thermo-dynamics, it is an undeviating quantity of Energy. According to this Law: 'the sum of the mass-energy within a closed system (like the universe) remains constant'. In other words, the total initial Energy of which all material forms and all manifestations of energy in the universe are constituted, remains always the same total. It means that all that we do and perceive, including our own bodies and its movement, is made of that initial Light, and is nothing else but that original Light.

It is of paramount importance that we understand that this body in which we exist is made of God's Light. Every atom of our body originated as a photon of His eternal Light. The body's form will not last, of course; it will decompose and turn to ash or dust, but it will always remain God's Light, regardless of the form it takes. Eventually, that Light that forms this universe will return to its original state in God; but even while it continues to form an element of this ever-changing world, it is still God's Light. The vast array of stars and galaxies and clusters of galaxies - all are His. And don't forget that the Light of conscious awareness within us - that too is His, all His. At every moment of our existence

Stella Maris ————



²⁷ SWAMI ABHAYANANDA, The Metaphysics of Mysticism, 2017,

http://www.themysticsvision.com/uploads/1/3/9/2/13928072/3._universal_creation_in_the_metaphysics_of_mysticism.pdf, (access: 05.10.2017).

²⁸ SWAMI ABHAYANANDA, "the Song of The Self", in The Supreme Self, Atma Books, Fallsburg, N.Y., 1984.

- from birth to final breath - we are in God, composed of God, enveloped in God. How could we ever be apart from Him? How could we ever be anywhere but safe in His infinitely blissful bosom?

1.2. The Divine Light as a Metaphysics Phenomenons

Metaphysics is a branch of philosophy exploring the fundamental questions, including the nature of concepts like being, existence and reality. ²⁹ Topics of metaphysical investigation include existence, objects and their properties, space and time, cause and effect, and possibility. Robert Grosseteste" ³⁰ is a great medieval theolog, philosopher, and Bishop of Lincoln. One of his treatise is On Light³¹ that described the 'Metaphysics of Light'. This text is an example of the philosophical-scientific synthesis which characterized the Oxford school, and an important source of the 'Metaphysics of Light' conceived in the Middle Ages. This text is divided into two parts, the first describing the metaphysics of light, and the second is his cosmogony. He explaines the 'atemporal' instant of the origin of the universe maintaining that light is the first corporeal form that makes the first matter (without any form) expand in three dimensions.

"The first corporeal form which some call corporeity is in my opinion light. For light of its very nature diffuses itself in every direction in such a way that a point of light will produce instantaneously a sphere of light of any size whatsoever, unless some opaque object stands in the way. Now the extension of matter in three dimensions is a necessary concomitant of corporeity, and this despite the fact that both corporeity and matter are in themselves simple substances lacking all dimension. But a form that is in itself simple and without dimension could not introduce dimension in every direction into matter, which is likewise simple and without dimension, except by multiplying itself and diffusing itself instantaneously in every direction and thus extending matter in its own diffusion. For the form cannot desert matter, because it is inseparable from it, and matter itself cannot be deprived of form. But I have proposed that it is light which possesses of its very nature the function of multiplying itself and diffusing itself

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²⁹ Stanford Encyclopedia of Metaphysic Philosophy, https://plato.stanford.edu/entries/metaphysics/, (01.11.2017).

³⁰ CLARE C. RIEDL (trans.), On Light of Robert Grosseteste, Marquette University Press, Milwaukee, Wisconsin, 2017, p. 1-2. "ROBERT GROSSETESTE - Grosseteste is the French version of the Latin 'Grossum Caput' or the English 'Great Head' - lived from about 1175 to 1253. He was born in England at Stradbroke in Suffolk. He studied law and medicine as well as theology at Oxford. It is quite probable that he studied at Paris also. Upon the completion of his studies he taught at Oxford where he organized the curriculum of philosophy. He was made Chancellor of the University about the year 1221, the first to hold this newly created office. He spent the last eighteen years of his life (1235-1253) as Bishop of Lincoln which was at that time the largest diocese in England. He is often referred to by his contemporaries as 'Lincolniensis' or 'the Lincolnian.' ... Grosseteste's works on scientific subjects are numerous and cover a wide range of topics, such as optics, mathematics, cosmology and astronomy. Included among them are treatises On Color (De Colore), On Lines, Angles and Figures (De Lineis, Angulis et Figuris), On the Sphere (De Sphaera), On the Movements of the Heavenly Bodies (De Motu Supercaelestium), On the Rainbow (De Iride), and on Comets (De Cometis). His shorter philosophical writings include works On the One Form of all Things (De Unica Forma Omnium), On Intelligences (De Intelligentiis), on Potency and Act (De Potentia et Actu), On Truth (De Veritate), On the order of Emanation of Effects from God (De Ordine Emanandi Causatorum a Deo), and a treatise On Free Will (De Libero Arbitrio).

³¹ The treatise On Light is significant: 1) as affording an introduction to one of the comparatively unknown great of the Middle Ages, an influential thinker and man of science, Robert Grosseteste; 2) as an example of the philosophic-scientific synthesis which characterized the Oxford school; 3) as an important source of the 'light metaphysics' of the Middle Ages 4) for the medieval conceptions relative to cosmology and astronomy contained in it.

instantaneously in all directions. Whatever performs this operation is either light or some other agent that acts in virtue of its participation in light to which this operation belongs essentially. Corporeity, therefore, is either light itself or the agent which performs the aforementioned operation and introduces dimensions into matter in virtue of its participation in light, and acts through the power of this same light. But the first form cannot introduce dimensions into matter through the power of a subsequent form. Therefore, light is not a form subsequent to corporeity, but it is corporeity itself.

Furthermore, the first corporeal form is, in the opinion of the philosophers, more exalted and of a nobler and more excellent essence than all the forms that come after it. It bears, also, a closer resemblance to the forms that exist apart from matter. But light is more exalted and of a nobler and more excellent essence than all corporeal things. It has, moreover, greater similarity than all bodies to the forms that exist apart from matter, namely, the intelligences. Light therefore is the first corporeal form."³²

For an understanding of the treatise On Light it will be necessary to consider some of the characteristics of Grosseteste's doctrine of matter and form. Grosseteste speaks of matter as a substance, "Both corporeity and matter are in themselves simple substances." 33

The function of the form in Grosseteste's metaphysics is the form completes, perfects, actualizes matter.³⁴ It is referred to as the species and perfectio of the object.³⁵ The term species seems to hold special connotation over and above mere form in its static aspect. Light spreads carrying (informed) matter along with it, and multiplying infinitely it originates finite quantity, so structuring the universe, conceived as series of spheres. It begins by developing metaphysical notions.

"Light, which is the first form created in first matter, multiplied itself by its very nature an infinite number of times on all sides and spread itself out uniformly in every direction. In this way it proceeded in the beginning of time to extend matter which it could not leave behind, by drawing it out along with itself into a mass the size of the material universe. This extension of matter could not be brought about through a finite multiplication of light, because the multiplication of a simple being a finite number of times does not produce a quantity, as Aristotle shows in the De Caelo et Mundo. However, the multiplication of a simple being an infinite number of times must produce a finite quantity, because a product which is the result of an infinite multiplication exceeds infinitely that through the multiplication of which it is produced. Now one simple being cannot exceed another simple being infinitely, but only a finite quantity infinitely exceeds a simple being. For an infinite quantity exceeds a simple being by infinity times infinity. Therefore, when light, which is in itself simple, is multiplied an infinite number of times, it must extend matter, which is likewise simple, into finite dimensions."36

In the section in the treatise On Light where Grosseteste employs this term he is concerned with the influence of forms on other bodies. "It is clear that every higher body, in virtue of



³² Robert Grosseteste - On Light, in CLARE C. RIEDL (trans.), On Light of Robert Grosseteste, Marquette University Press, Milwaukee, Wisconsin, 2017, p. 10.

³³ Robert Grosseteste - On Light, in L. BAUR (ed.), Die philosophischen Werke des Robert Grosseteste, in Baeumker's Beiträge zur Geschichte der Philosophie des Mittelalters, IX, Aschendorff, Münster i. W., 1912, p. 10.

³⁴ On Light, BAUR, p. 13.

³⁵ On Light, BAUR, p. 15.

³⁶ On Light, RIEDL, p. 11.

the light which proceeds from it, is the form (species) and perfection of the body that comes after it."³⁷ In connection with this theory of interaction in virtue of which in "a sense each thing contains all other things,"³⁸ it is interesting to note the dynamic aspect which Grosseteste assigns to form. Form, that is to say, the first corporeal form, or light, is in his view more than the "form of corporeity," the principle of extension, it is also a principle of activity. Everybody, he believes, has a motion or activity which is natural to it, because it proceeds from an intrinsic principle. The intrinsic principle from which this motion or activity proceeds must be the form, since matter is passive.³⁹

When Grosseteste speaks of 'the first corporeal form.'40 Corresponding to the notions of matter and form are the closely related concepts of potency and act. And just as for Grosseteste matter as such has some slight reality, so potency is not purely passive. 'By potency I mean not that which has no actuality whatsoever, but that which is not altogether actual.'41 The terms act and actualization as used in the treatise On Light have some rather interesting implications. Compleo and complementum are the words Grosseteste uses. In his De Potentia et Actu⁴² he explains these terms. Actual being is the same, he says, as being 'in complemento.' When we come to consider the meaning of act and actualization in the treatise On Light we find that the actualization of matter is practically synonymous with extension. To actualize matter is to extend matter. To actualize matter completely, perfectly, leaving in it no potency to further actualization, is to extend it to the utmost of its capacity, to rarefy it in the highest degree. ⁴³ It would appear from this that the only potency which matter in corporeal substances contains is the potency for extension. This is further borne out by the fact that the first body, the firmament, is perfect 'because it has nothing in its composition but first matter and first form.'⁴⁴

With these preliminary notions regarding matter and form as a background, we can proceed to the consideration of the treatise On Light. The subject matter of the treatise is indicated in brief in its opening sentence, where Grosseteste sets forth his thesis that light is 'the first corporeal form.' The remainder of the treatise is occupied with explanation and attempted proof of this proposition together with a detailed analysis of the process by which this first corporeal form united with primordial matter to produce the material universe. The work falls naturally into two divisions. The first part is concerned with 'light metaphysics' proper, with the composition of material substance out of first matter and the first corporeal form of light. The second part contains a cosmogony based on this 'light metaphysics,' an account of the way in which light brought about the formation of the thirteen spheres of the material universe.

Grosseteste bases his 'light metaphysics' on the consideration of the properties of light and of the nature of material substance. He finds as a characteristic note of corporeity the requirement of extension, 'the extension of matter in three dimensions is a necessary concomitant of corporeity.' He considers corporeity and matter in themselves 'simple substances lacking all dimension.' His knowledge of the properties of light, its tendency to multiply itself and diffuse itself in all directions, the fact that a point of light will produce



³⁷ On Light, BAUR, p. 15.

³⁸ On Light, BAUR, p. 15.

³⁹ De Motu Cortorali et Luce, BAUR, p. 90.

⁴⁰ On Light, BAUR, p. 10.

⁴¹ De Statu Causarum, BAUR, p. 123.

⁴² On Light, BAUR, p. 126.

⁴³ On Light, BAUR, p. 13.

⁴⁴ *On Light*, BAUR, p. 13.

⁴⁵ On Light, BAUR, p. 10.

instantaneously a sphere of light lead him to conclude that light is ideally suited to fulfill the requirement of extension, since when it is joined to matter as its form, and as such is inseparable from matter, it will necessarily carry matter along with it in its diffusion and self-multiplication.

The light of which Grosseteste speaks is not the ordinary physical light of our every day experience. It is a simple substance, almost spiritual in its properties. He uses Latin terms lux and lumen.

"When the first body, which is the firmament, has in this way been completely actualized, it diffuses its light (lumen) from every part of itself to the center of the universe. For since light (lux) is the perfection of the first body and naturally multiplies itself from the first body, it is necessarily diffused to the center of the universe. And since this light (lux) is a form entirely inseparable from matter in its diffusion from the first body, it extends along with itself the spirituality of the matter of the first body. Thus, there proceeds from the first body light (lumen), which is a spiritual body, or if you prefer, a bodily spirit. This light (lumen) in its passing does not divide the body through which it passes, and thus it passes instantaneously from the body of the first heaven to the center of the universe. Furthermore, its passing is not to be understood in the sense of something numerically one passing instantaneously from that heaven to the center of the universe, for this is perhaps impossible, but its passing takes place through the multiplication of itself and the infinite generation of light (lumen). This light (lumen), expanded and brought together from the first body toward the center of the universe, gathered together the mass existing below the first body; and since the first body could no longer be lessened on account of its being completely actualized and unchangeable, and since, too, there could not be a space that was empty, it was necessary that in the very gathering together of this mass the outermost parts should be drawn out and expanded. Thus, the inner parts of the aforesaid mass came to be denser and the outer parts more rarefied; and so great was the power of this light (lumen) gathering together — and in the very act of gathering, separating — that the outermost parts of the mass contained below the first body were drawn out and rarefied to the highest degree. Thus, in the outermost parts of the mass in question, the second sphere came into being, completely actualized and susceptible of no further impression. The completeness of actualization and the perfection of the second sphere consist in this that light (lumen) is begotten from the first sphere and that light (lux) which is simple in the first sphere is doubled in the second."46

There seem to be no suitable English words to convey the distinction between lux and lumen. The distinction appears to be this: lux is light in its source, whereas lumen is reflected or radiated light. Both however are conceived by Grosseteste to be substances. Thus, he speaks of lux as 'a simple being' and of lumen as 'a spiritual body.'⁴⁷ From the sections in the Hexaemeron in which he treats of light, ⁴⁸ it can be seen that the starting point for this theory of light is the account in Genesis of the light which God created three days before the creation of the sun and the stars. Grosseteste is greatly influenced by the Hexaemeron of St. Basil with its analysis of this doctrine of light in Genesis. The distinction between lux and lumen, which Grosseteste makes, is found in the Hexaemeron of St.



⁴⁶ On Light, RIEDL, p. 13-14.

⁴⁷ On Light, BAUR, p. 11, 13.

⁴⁸ E.g., Hexaemeron, fol. 146r, col. 2.

Basil,⁴⁹ and L. Baur suggests that St. Basil is Grosseteste's source on this point.⁵⁰ But the distinction can be found also in St. Augustine as well as in many early medieval writers.

The second part of the treatise might well be called a 'philosophy of Genesis.' It gives the story of creation in terms of light. This light, in its capacity as first corporeal form united inseparably with matter, proceeded 'in the beginning' to extend matter along with itself into the form of a sphere.⁵¹ The outermost parts of the sphere were naturally more extended and rarefied than the inner parts. In fact, their potency for extension was completely actualized. Thus, in the outermost part of this sphere the firmament came into being. The firmament in turn diffused its light (lumen) from every part of itself to the center of the universe. This light gathered together the dense mass of matter inside of the firmament. In this process again, the outermost parts of the mass came to be rarefied and extended to their full capacity and resulted in the formation of the second sphere. In this same way the light reflected from the second sphere produced the third sphere, and so on, until the nine heavenly spheres were brought into being, and also the four spheres of the elements: fire, air, water, and earth.

"Just as the light (lumen) begotten from the first body completed the actualization of the second sphere and left a denser mass below the second sphere, so the light (lumen) begotten from the second sphere completed the actualization of the third sphere, and through its gathering left below this third sphere a mass of even greater density. This process of simultaneously gathering together and separating continued in this way until the nine heavenly spheres were completely actualized and there was gathered together below the ninth and lowest sphere the dense mass which constitutes the matter of the four elements. But the lowest sphere, the sphere of the moon, which also gives forth light (lumen) from itself, by its light (lumen) gathered together the mass contained below itself and by gathering it together, thinned out and expanded its outermost parts. The power of this light (lumen), however, was not so great that by drawing together it could expand the outermost parts of this mass to the highest degree. On this account every part of the mass was left imperfect and capable of being gathered together and expanded. The highest part of this mass was expanded, although not to the greatest possible extent. Nevertheless, by its expansion it became fire, although remaining still the matter of the elements. This element giving forth light from itself and drawing together the mass contained below it expanded its outermost parts, but not to as great an extent as the fire was expanded, and in this way, it produced air. Air, also, in bringing forth from itself, a spiritual body or a bodily spirit, and drawing together what is contained within itself, and by drawing together, expanding its outer parts, produced water and earth. But because water retained more of the power of drawing together than of the power of expanding, water as well as earth was left with the attribute of weight."52

Light furnishes therefore the principle of continuity in nature, for as the first corporeal form it is common to all things in the universe from the lowest of the elements, earth, up to and including even the firmament. Thus 'all things are one by the perfection of one light.' It is



⁴⁹ St. Basil, Homiliae in Hexaemeron, VI, 3, Migne: Patrologia Graeca, XXIX, 121.

⁵⁰ "Das Licht in der Naturphilosophie des Robert Grosseteste," in Abhandlungen aus dem Gebiete der Philosophie und ihrer Geschichte, eine Festgabe zum 70. Geburtstag Georg Freiherrn von Hertling, Herder, Freiburg i. B., 1913, p. 44.

⁵¹ On Light, BAUR, p. 11.

⁵² On Light, RIEDL, p. 14-15.

also the principle of distinction and multiplicity since the 'things which are many are many through the multiplication of light itself in different degrees.'53

"The form (species) and perfection of all bodies is light, but in the higher bodies it is more spiritual and simple, whereas in the lower bodies it is more corporeal and multiplied. Furthermore, all bodies are not of the same form (species) even though they all proceed from light, whether simple or multiplied, just as all numbers are not the same in form (species) despite the fact that they are all derived from unity by a greater or lesser multiplication.

But since lower bodies participate in the form of the higher bodies, the lower body because it participates in the same form as the higher body, receives its motion from the same incorporeal moving power by which the higher body is moved. For this reason, the incorporeal power of intelligence or soul, which moves the first and highest sphere with a diurnal motion, moves all the lower heavenly spheres with this same diurnal motion. But in proportion as these spheres are lower they receive this motion in a more weakened state, because in proportion as a sphere is lower the purity and strength of the first corporeal light is lessened in it."⁵⁴

In Grosseteste's philosophy light is a very fruitful principle. The concept is not restricted to metaphysics as in the treatise On Light. In other works, the principle is extended to different fields, such as psychology where light is brought in to account for the union of soul and body,⁵⁵ or knowledge, where light serves as the means whereby the soul gets knowledge from sense data.⁵⁶

1.3. The Divine Light as the Mysterium Tremendum et Fascinans

Experiencing divine light is a mystical experience. "Mystical experiences can be categorized not only according to their contents but also according to the alternate states of consciousness during which they occur. 'Ecstasy' appears gradually or quietly. 'Rapture' is an experience of the same content when its onset is violent and sudden. Lastly, the 'flight of the soul' is a rapture with the specific content of an out-of-body experience." ⁵⁷

Rudolf Otto noted this fact when he proposed a dualistic classification of numinous experiences. In the mysterium tremendum ('awe inspiring mystery'), the numinous is experienced as mysterious, awesome, and urgent. Otto identified the other class of experiences, in which the numinous is fascinans.

"Rudolf Otto (1869–1937) made a profound impression on the scholarly world with the publication of The Idea of the Holy (in its German edition of 1917), which showed the influence of Schleiermacher, Marett, Edmund Husserl, and the Neo-Kantianism of Jakob Fries (1773–1843). More important than the philosophical side of his enterprise, however, was the excellent delineation of a central experience and sentiment and the elucidation of the concept of the Holy. The central experience Otto refers to is the numinous (Latin numen, spirit') in which the Other (i.e., the transcendent) appears as a mysterium tremendum et fascinans—that is, a mystery before which man both trembles and is fascinated, is both repelled and attracted. Thus, God can appear both as wrathful or awe inspiring, on the one hand, and as gracious and lovable, on the other. The sense of the numinous, according to Otto, is sui generis, though it may have

⁵⁷ https://www.britannica.com/topic/mysticism/Mystical-states#ref421198, (access: 02.10.2017).



⁵³ On Light, BAUR, p. 16.

⁵⁴ On Light, RIEDL, p. 15-16.

⁵⁵ Hexaemeron, fol. 147v, col. 2.

⁵⁶ Hexaemeron, fol. 147v, col. 2.

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psychological analogies, and it gives an access to reality, which is categorized as holy. Otto stresses what he calls the nonrational character of the numinous, but he does not deny that rational attributes may be applied to God (or the gods or other numinous powers), such as goodness and personality. The impact of Otto's work, however, does not depend on the now rather curious Neo-Kantian scheme into which he presses his data. Not all scholars would agree that the numinous is universal as a central element in religion, as Otto seems to have supposed: early Jainism and Theravada Buddhism, for example, have other central values. Otto's treatment of mysticism, which is central to Buddhism, wavers somewhat, and the notions of the "wholly Other" and of the tremendum do not easily apply to the experience of Nirvāṇa (the state of bliss) or to other deliverances of the contemplative mystical consciousness."58

Experiencing of Divine Light is experience of the numinous (the spiritual dimension), the utterly ineffable, the holy, and the overwhelming. The "holy" is manifested in a double form: as the mysterium tremendum (mystery that repels), in which the dreadful, fearful, and overwhelming aspect of the numinous appears, and as the mysterium fascinosum (mystery that attracts), by which humans are irresistibly drawn to the glory, beauty, adorable quality, and the blessing, redeeming, and salvation-bringing power of transcendence.

https://www.britannica.com/topic/study-of-religion/Basic-aims-and-methods#ref420412, 02.10.2017).

(access:

