Al-Ḥamdu li'llāhi Rabbi'l-ʿĀlamīn

'Praise to God, Lord of the Worlds'

An Introduction to Qur'anic Ecology and Resonances with Laudato Si'

by FARHANA MAYER

RANDEREE CHARITABLE TRUST

Laudato Si' Research Institute

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To my beloved grandchildren

and all the children of their generation

Bi-Ism Allāh al-Raḥmān al-Raḥīm

In the Name of God, the All-Gracious, the Merciful

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The idea of writing this book was conceived in 2016 when I was asked to deliver a presentation on Pope Francis' encyclical *Laudato Si', On Care for our Common Home* (LS) to the Westminster Cathedral Interfaith Group. Reading the papal encyclical in preparation, I was immediately struck by the truth and beauty of the message of LS, and by the many resonances it has with the Qur'an, and I conceived the idea of a systematic, comparative study of the LS and the Qur'an to highlight all these resonances. It has taken some years for that seed to move from concept to being planted in the ground, so to speak; it required diverse independent factors to unfold before, unexpectedly, in 2021, I got the chance to propose this idea to the key funders. My deep thanks to Fr Damian Howard, SJ, Provincial Superior of the Jesuits in Britain, for introducing me to the Laudato Si' Research Institute – without that introduction the rest would not have followed.

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Preface

Preface

In June 2015, Pope Francis' encyclical*, Laudato Si': On Care for our Common Home*,[2] was released. It called for cooperation among humanity in caring for our earthly home, since humanity will have to act as a global community in addressing this global problem. The publication of *Laudato Si'* gave rise to a global Catholic movement for socio-ecological transformation. The Qur'an itself contains a wealth of such guidance. While Muslim faith-based scholarship has been increasingly unpacking the riches of Islamic ecological teachings, as indicated in the sources cited in this study, the subject of Qur'anic ecology, specifically, is still relatively understudied, especially given the multiple facets of the topic. This book seeks to make a contribution towards the subject by presenting theological and ethical principles derived from the Islamic Holy Book that are pertinent to integral ecology, and by identifying and discussing the numerous Qur'anic verses that resonate with the Catholic guidance and themes presented in Pope Francis' encyclical, in particular the opening section. In doing so, this book showcases Qur'anic guidance on fostering respectful and caring attitudes towards the earth, its natural environment and its diverse inhabitants – all three (earth, environment, inhabitants) being presented by the Qur'an as nothing less than 'among the signs of God'.[3] In addition to explaining Qur'anic verses that impart the Scripture's wholistic ecological message, this study also illustrates how key Islamic divine names[4] provide sacred principles that locate the Qur'anic guidelines for an integral Islamic ecology directly within a framework of God's own qualities and characteristics.

It is anticipated that *An Introduction to Qur'anic Ecology and Resonances with Laudato Si'* will be of use for a variety of audiences, such as faith communities in the UK and internationally, civil society organisations and policy forums, and educational institutions. Muslim stakeholders who address local issues of socio-environmental degradation that face Muslim communities in various parts of the world, can use the Qur'anic guidelines outlined in this book for a scripture-based ecological approach to the issues, and for a positive and spiritual way to address eco-environmental malpractices. In addition, imams, teachers, environmentalists and public leaders can use *An Introduction to Qur'anic Ecology and Resonances with Laudato Si'* to provide religious motivation for ecological and environmental awareness and action among their constituents,[5] and to influence policy making. Being Qur'an-focussed, this work is a foundational resource that can be used by Muslims of diverse denominations as they unpack the extended eco-environmental wisdom found in their own particular traditions of *Ḥadīth*, spirituality and jurisprudence (*fiqh*).

By demonstrating the relevance of Qur'anic teachings to the themes presented in the *Laudato Si'* 1–12, and by showing how Qur'anic wisdom adds to the case for an integral ecology made by Pope Francis, this comparative, dialogical study also highlights the significant common ground between the

two texts and viewpoints. It can therefore be used to promote interfaith fraternity in ecological endeavours, on local and international levels. This work, therefore, responds to the joint invitation by Pope Francis and the Grand Imam of Al-Azhar, Ahmed al-Tayyeb, in their 'Document on Human Fraternity for World Peace and Living Together'.[6] This work will also provide a resource for organisations already working on implementing *Laudato Si'* within the Catholic Church and beyond.

In order to achieve the aforementioned, this study will introduce and unpack Qur'anic ecological teachings, especially those that resonate with the message of Pope Francis' encyclical. It will then provide principial benchmarks from the highest Islamic source, the Qur'an, as a religious resource for Muslim organisations, centres of learning and individuals worldwide, for use in their own responses to the current global socio-environmental crisis. Finally, this study will underscore the common ground between the ecological teachings of the Qur'an and the *Laudato Si',* and so help promote interfaith fraternity as we endeavour to protect and heal our common, God-given home. It is my aim to do all of this in a manner that is both scholarly and accessible, like *Laudato Si'* itself.

It is hoped that this initial study will be the start of a mini-series of comparative studies between the Qur'an and the other chapters of the *Laudato Si'*, in order to more fully demonstrate the combined and overlapping religious heritage of socio-ecological and environmental wisdom.

Stylistic Conventions

Qur'anic referencing

For the purpose of appealing to a global audience, English translations have been provided for Qur'anic citations in this book, with key terms provided in transliteration. Translations from the Arabic are mine unless stated otherwise.

Qur'anic surah and verse references are from the standard 1924 Cario edition of the Arabic Qur'anic text and are given as 'Q.', followed by surah and verse numbers, e.g., Q. 2:152 = surah 2, verse 152. References to different verses from the same surah are separated by a comma, e.g., Q. 6:12, 54, 165. A semi-colon separates Qur'anic references from different surahs, e.g., Q. 5:8; 6:115.

Arabic transliteration

Arabic transliteration is based on, but not identical to, the Library of Congress system. Capitalisation, punctuation, and hyphenation are kept to a minimum, so as not to clutter the text and to reflect the absence of capital letters in Arabic (with the exception of the divine names). Suffixes are not preceded by a hyphen (e.g., *jaʿalnāhum*). Prepositions followed by a pronominal suffix are hyphen-

free (*lakum, fīhā, bihim*, *ʿalayhā*), but hyphenated before other words (*bi-irādatihi*). *Hamzat al-waṣl* and elisions of the definite article are written thus, *li'l-nāsi* or *wa'l-ākhirah;* sun-letters are not assimilated (*al-nūr*), as per the LoC system. The conjunctive *wa* is hyphen-free and stands alone (*wa lākin*, *wa antum*) but not so other conjunctives including the *lām al-takwīd* (*fa-idhā, la-qad)*. Interrogative particles are hyphenated (*a-tuḥājjūnanā*). Word-start *hamza*s are not indicated with an ʾ (*iṣṭafaynā*). The compression of Arabic words due to *hamzat al-waṣl* is mostly reflected in the romanisation (*fiṭrata'llāhi'llatī faṭara'l-nās*), but not when due to doubling of a letter (*lahum min nāsirīn*). The definite article is dropped from medieval Islamic sources when only the last name is being used (Ṭabarī). The words 'Qur'an' and 'surah' are fully transliterated and italicised (*qurʾān*, *sūrah*) only when part of a transliterated phrase or if used thus in a book/article title. Longer citations have word-end vocalisation (*innī anā'llāhu Rabbu'l-ʿālamīn*), but not isolated words/phrases (*Rabb al-ʿālamīn*), unless pertinent to the discussion.

Key to Arabic transliteration

ء	–	ʾ (glottal stop)	ظ	–	ẓ (labial 'zh', sounds like 'ẓthah')
ا	–	a	ع	–	ʿ (deep-throated, guttural rolling 'a')
ب	–	b	غ	–	gh
ت	–	t	ف	–	f
ث	–	th	ق	–	q (deep throated 'q')
ج	–	j	ك	–	k
ح	–	ḥ	ل	–	l
خ	–	kh	م	–	m
د	–	d	ن	–	n
ذ	–	dh (sounds like 'the')	ه	–	h
ر	–	r	و	–	w
ز	–	z	ي	–	y
س	–	s			
ش	–	sh	Long Vowels		
ص	–	ṣ (labial 's', sounds like 'ṣwah')	آ	–	ā (pronounced 'aa')
			ي	–	ī (pronounced 'ee')
ض	–	ḍ (labial 'd', sounds like 'ḍwah')	و	–	ū (pronounced 'oo')
ط	–	ṭ (labial 't', sounds like 'ṭawh')			

References to the Bible and Laudato Si'

Translations of the Bible are from *The Holy Bible, New King James Version*, (Edinburgh: Thomas Nelson, 1982). Following common convention, references to the encyclical are given by the letters LS, followed by the paragraph number of the citation (e.g., LS 88).

General references

Historical and contemporary dates are given in the Common Era (C. E.).

Bibliographic references are provided in full in the Bibliography. Within endnotes, textual sources are provided in full at the first reference, thereafter the short form of surname + short title + volume and page number is used.

Online sources are provided with a hyperlink for the reader's ease of access. Since articles may have been visited more than once, dates of access are not always provided.

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[1] Formerly called the Faculty of Oriental Studies.

[2] Pope Francis, *Laudato Si': Encyclical Letter on Care for our Common Home* (Vatican City: Libreria Editrice Vaticana, 2015). Henceforth, referred to as either *Laudato Si'* or more briefly as LS. The full text can be accessed at https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

[3] See Part 3.3 on LS 5; Part 3.5 on LS 7–8; 3.8 on LS 11; and 3.9 on LS 12.

[4] Known as 'the most beautiful names of God'. On the divine names and designations, see Parts 1b.iii, 2b.iv, v, and vi, plus the Appendix.

[5] References to eco-environmental issues and scientific material have been included in this book in order to raise awareness of what is at stake.

[6] 'Document on Human Fraternity for World Peace and Living Together', Apostolic Journey of His Holiness Pope Francis to the United Arab Emirates, 3–5 February 2019 (Dicastero per la Comunicazione – Libreria Editrice Vaticana), https://www.vatican.va/content/francesco/en/travels/2019/outside/documents/papa-francesco_20190204_documento-fratellanza-umana.html.

Part 1

Introduction

Part 1: Introduction

1a: Overview of the book

An Introduction to Qur'anic Ecology and Resonances with Laudato Si' (henceforth, *Qur'anic Ecology and Resonances*) presents Qur'an-based theological and ethical principles that are applicable to integral ecology, and discusses Qur'anic resonances with the themes presented in the preliminary section of Pope Francis' encyclical, *Laudato Si': On Care for our Common Home* (henceforth, *Laudato Si'* or LS).[1] The topics of this study are addressed with reference to Qur'anic concepts and teachings, LS teachings and key Muslim writings.

The work is divided into four parts plus an Appendix. The introduction (Part 1) firstly presents a brief overview of this comparative study (Part 1a). It then introduces the main primary sources (Part 1b), namely, the Qur'an (Part 1b.i), Islamic divine designations (Part 1b.ii), and *Laudato Si'* (Part 1b.iii). Most Muslim faith-based, eco-environmental writings draw on the plentiful verses in the Qur'an that are susceptible to being applied to eco-environmental topics – whether it be directly or through interpretive deduction; this study is no exception.[2] What is unusual is a close comparative study between the themes of LS and certain Qur'anic passages, as demonstrated in Part 3 of this study. A further distinctive feature of this study is its recourse to Islamic divine names and designations as ethical benchmarks, and as constituting an overarching framework of principles within which to situate ecological virtues (Part 2b.vi). An introduction to the subject of Islamic divine designations, particularly those known as 'the most beautiful Names of God' (*asmāʾ Allāh al-ḥusnā*) is provided in Part 1b.ii. A summary of the themes of *Laudato Si'* is presented in Part 1b.iii.

The second part starts by sketching a broad-brush outline of the natural balances found in our solar system and on earth (Part 2a.i), and then by outlining the environmental and climate crisis that has resulted from imbalances produced by humankind's conduct and ecological impact (2a.ii). In Part 2a.ii the philosophical roots of the Anthropocene, as presented by key Muslim voices (e.g., Seyyed Hossein Nasr, Fazlun Khalid, Osman Bakar, Ibrahim Özdemir), are summarised, thereby introducing readers to some of the major Muslim faith-based writers in English who address the subject in depth. The interested reader is directed (especially via the endnote references) to more in-depth studies on various aspects of the crisis, and the ways in which Muslims have responded to it. Part 2a.ii also addresses eco-environmental injustices (including those present in the drive to mitigate the climate crisis), and the need for climate justice. Sections 2b.iii, 2b.iv, 2b.v unpack some central Qur'anic concepts which have a direct bearing on integral ecology and climate justice: namely, the principles

of unity, balance, justice, uprightness and moderation, and 'the nature of God'. (Other key Qur'anic concepts, such as human stewardship and accountability, and the natural world and humanity being 'signs of God', are addressed in Part 3.) In section 2b.vi of the second part, the Islamic divine names are related to the divine nature (*fiṭrat Allāh*), and it is then demonstrated how and why the principles enshrined in the names can serve as ethical paradigms for humankind. Part 2 concludes with an explanation of how the qualities enshrined in divine names and designations, particularly 'the most beautiful names of God', constitute an overarching *principial* framework of reference within which the ecological wisdom noted in this study can be positioned (2b.vi). The presentation of the most sacred principles enshrined in Islamic designations of God will resonate with concepts of Christian virtues.

Part 3 of the study, which may be described as a conversation between the Qur'an and *Laudato Si'*, continues to reveal Qur'anic ecology, unpacked through the Scripture's resonances with pivotal ideas of the encyclical. Pope Francis' introduction is a seed-bed for the rest of the encyclical, setting up the themes which are then treated at greater length in the chapters that follow. The number of resonances between the Qur'an and the themes presented in the papal introduction is remarkable. Following LS 1–12, paragraph by paragraph, Part 3 presents discussions of and references to over one hundred and seventy Qur'anic verses that resonate with Pope Francis' rich introduction. This part explores a number of key topics from a Qur'anic perspective, including: a comparison of the first chapter of the Qur'an (Q. 1:1–7) with St Francis' Canticle; God, not humankind, as 'Lord of the heavens and the earth' and 'Lord of the Worlds'; physical nature, animals and humanity as 'signs of God' (*āyāt Allāh*); human beings as a combination of spirit, character/will and physical matter; the interconnection between God, cosmos, humankind, and also between God, scripture and physical nature; humankind as deputies and stewards on earth, and human accountability; ecological repentance and conversion; Qur'anic altruism; relevant characteristics of the Prophet of Islam; and the natural world as a revelatory 'book' of God.

Part 4 sums up the findings of this study, firstly on Qur'anic ecological principles and perspectives and the implications of that for Muslims today (4b.1), and secondly on the congruences between the Qur'an and *Laudato Si'* (4b.ii). This study reveals a profound common ground between the two texts. If it does not dwell on the differences, which do exist, it is because the nature of this work has highlighted similarities. The concluding thoughts (4c) reflect on the continuing and urgent need for a qualitative regeneration of humanity, and the positive impacts that would have.

The Appendix will be of particular interest to theologians, especially those working in Qur'anic studies. It provides detailed syntactical information on how the Qur'an formulates its references to God and His attributes, and offers a categorisation of these Qur'anic formulations. Examples from the

Qur'an are given for each category and, when appropriate, they are related to the ecological topics of this study. An index of the divine names used in this study is also provided in the Appendix.

Using the highest sources of Islamic theology and ethics, this study is, as per its title, an introduction to Qur'anic ecology and to its resonances with Pope Francis' encyclical *Laudato Si': On Care for our Common Home*. While it was not possible within the set length of this short study to cover all the resonances between the Qur'an and LS, it is hoped that *Qur'anic Ecology and Resonances* has offered an informative and useful selection. It is anticipated that further similar studies will follow, unpacking the Qur'anic resonances with the rest of the papal treatise.

1b: Introducing the main sources, and methodological matters

i) The Qur'an

While Islamic ecological guidance is to be found in other traditional Islamic works, such as in *ḥadīth* literature,[3] the decision was taken to focus on the Qur'an, with only a few references to additional sources from Islamic theological and spiritual traditions. There was more than one reason for this. Firstly, there is the pragmatic question of how much material can be included or referred to. Qur'anic commentarial literature and Islamic theological literature are huge genres. It would be difficult to decide where to draw the line on which texts and authors to include. There is also the need to present a work that is usable by all Muslim denominations. The selection of which further commentaries/theological texts to use must fall to scholars within each denomination, so that they may use the ones that are most relevant for their own communities. That being said, *Qur'anic Ecology and Resonances* refers to current environmental works, by Muslims and others, and cites illustrious historical voices on relevant Islamic theological and spiritual concepts, most notably, Imām Jaʿfar al-Ṣādiq (d. 765 C. E.), Imām Muḥammad al-Ghazālī (d. 1111), and Shaykh Muḥammad Ibn ʿArabī (d. 1240).[4]

A few introductory words on the Qur'an, from the normative Muslim perspective, are in order for those readers less familiar with it. The Qur'an is held by Muslims to be the very word of God revealed to the Prophet Muḥammad (d. 632) ﷺ through the medium of the Archangel Gabriel.[5] Muslims believe that the verses of the Qur'an were revealed to the illiterate Prophet Muḥammad in the latter part of his life (610–632), and that the words he uttered under inspiration were memorised by himself and his followers, and noted down in consonantal form by different people who had heard them. Traditional Islamic history holds that after the Prophet's death, these notes (*ṣuḥuf*) were collected, on the order of Caliph Abu Bakr (d. 634), and later compiled into a single codex (*muṣḥaf*), on the order of Caliph Uthman ibn ʿAffān (d. 656). In the 20th century, the standard Cairo text of the

Qur'an (1924) was produced on the basis of the recitational version known to have been transmitted by Ḥafṣ b. Sulaymān al-Asadī al-Kūfī (d. 796) from his teacher ʿĀṣim b. Abī al-Najūd al-Kūfī (d. 745); it became the most popular among the majority of Muslims.[6] It has 6,236 verses, according to one numbering system, arranged in 114 surahs or chapters, which are ascribed to either the Meccan or the Medinan periods of the Prophet's life.[7] The surahs were arranged according to their length, and so, with the exception of the very first chapter, the surahs of the Qur'an go from long to short. It should be kept in mind that, with the exception of some verses, the longer chapters generally belong to the later Medinan period of the Prophet's life (622–632) while the shorter chapters generally belong to the chronologically earlier Meccan period of the Prophet's life (610–622).[8] The two periods are divided by the Prophet's immigration (*hijrah*) from Mecca, where the early Muslims were persecuted and the Prophet's life was in danger, to Medina, where the town's Arab tribes had agreed to give him asylum.

The Qur'an is central to Muslim worship. Parts of it are recited daily in the canonical and supererogatory prayers. Countless Muslims recite the whole of the text, particularly in the holy month of Ramadan (the 9th month of the lunar Islamic calendar). In addition to its theological importance, the Scripture also impacts, to different degrees, most other Islamic branches of knowledge. There is a huge and diverse literary heritage in the field of Qur'anic exegesis, to which I will give an extremely brief and basic introduction here. Over the centuries, Islamic exegetes have favoured either narrational (limited to received traditions and earlier commentarial literature), rational or mystical approaches to interpreting the Qur'an; not infrequently these hermeneutical approaches are interwoven by individual commentators. The methodology used by commentators is broadly, either a) systematic (starting from the first chapter of the Scripture and going through to the last); b) selective (choosing a particular surah or set of surahs to interpret); c) atomistic (whereby seemingly random verses/phrases/words are selected for study); or d) thematic (whereby verses pertinent to a particular theme are extracted from different surahs and presented together). The hermeneutics may be confined to the literal content and context of the text, or the text may be used as the springboard for more inspired, even visionary, discussions.

A predominantly thematic approach to the Scripture has been adopted in *Qur'anic Ecology and Resonances*. The selection of Qur'anic verses, and in some cases phrases, is determined specifically by their relevance to integral ecology and their resonances with themes in *Laudato Si'*. For instance, in Part 3, the themes set out in LS 1–12 relate to verses from different chapters of the Qur'an. This thematic approach has been used in the Islamic exegetical tradition and does not in any way negate the significance of the cited verses in their immediate scriptural context. The Islamic exegetical

tradition has historically shown itself capable of holding multiple or multi-level interpretations of Qur'anic verses, phrases or words, not least because Arabic itself is a polysemous language.

Lastly, it should be noted that although all the verses of the Qur'an were revealed within a specific historical context, long before the current climate crisis, many verses contain eternal wisdom. Through a process of interpretive deduction, these notes of wisdom can yield principles that are relevant even today, as this study demonstrates. To give an example, while Q. 2:115, 'To God belong the east and the west, wheresoever you turn, there is the Face of God,[9] verily, God is comprehensive, knowing', was revealed in the context of an historical issue concerning which way to turn when praying, nonetheless, the words are a literal invitation to see God wherever we turn and to know that He is there. There are two principles that can be extracted from this verse. Firstly, that everything – depicted in the verse by references to the east and the west – belongs to God, not to humanity. Secondly, since no matter where we turn there is the face of God, therefore there should *be an assumption of potential sanctity in everything*. The sanctity of nature is underscored in the Qur'an by its reference to natural phenomena as *āyāt* (sing. *āyah*). *Āyāt* means 'signs', and is often used in the Qur'anic phrase, 'the signs of God'. The Qur'an primarily uses the same word/phrase to refer to its own verses. This clearly indicates that, from a Qur'anic perspective, nature too is a book of divine signs.[10] Similar views of creation as a book authored by God – 'God has written a precious book, "whose letters are the multitude of created things present in the universe"' – and of nature as 'a continuing revelation of the divine' are set out in LS 85. The inherent sanctity of creation is also underscored in certain interpretations of the Islamic divine designations, as demonstrated in the following section.

ii) Islamic divine names

Islam has a rich literary and spiritual heritage focussed on Islamic divine designations known as 'the most beautiful names of God' (*asmāʾ Allāhi al-ḥusnā*). This genre stems from the Qur'anic phrase, 'to God/Him belong the most beautiful names' found in Q. 7:180, 17:110; 20.8; and 59:24. While there are over 130 descriptive designations of God derived from the Qur'an, traditionally Islamic theology highlights the ninety-nine most beautiful names of God. [11]

Seyyed Hossein Nasr refers to the names of God as 'a galaxy of divine names and Qualities', which 'play a central role not only in Islamic metaphysics and theology, but also in the practical and ritual aspects of Islamic religious and spiritual life'.[12] Indeed, in keeping with the scriptural injunction, 'To God belong the most beautiful names, so evoke/invoke Him with them' (Q. 7:180), throughout Islamic history Muslims have enumerated, chanted, contemplated, studied and sought to understand the most beautiful names of God. Some of the leading commentaries on the divine names are found

in the works of such preeminent figures as Imām Jaʿfar al-Ṣādiq (d. 765),[13] Imām Muḥammad al-Ghazālī (d. 1111)[14] and the Shaykh Muḥyī'l-Dīn Ibn ʿArabī (d. 1240).[15] According to the writings of the latter, all creation manifests the attributes expressed in the divine names; indeed the divine names choose to *self-manifest* in creation.[16] The cosmos, then, is an expression of the divine names and qualities.[17] The human being, in turn, is potentially the highest and most comprehensive manifestation of the divine names, on and in earth. A human is comprised of earth and spirit, endowed with body, will and the highest intellectual capacity of all creatures on earth (as far as we know), and has ethical and moral sensitivities which are self-evidently relatable to divine characteristics.[18] According to Ibn ʿArabī's presentation of the creative discourse of the divine names, the aspect of God which Ibn ʿArabī called 'the Worshipped Name' especially 'desired the creation of free, rational creatures to worship Him that they might come to know Him by the very attributes that He had in effect attributed to them when He created them such as they are.'[19] The 6th/12th century Persian Sufi Qur'an commentator, Rashīd al-Dīn Maybudī (writing in 1126), also held that God 'gave Adam qualities by which He Himself, exalted be His Glory, is described and named, such as knowledge (*ʿilm*), wisdom (*ḥikmah*), and clemency (*ḥilm*)'.[20] Osman Bakar[21] points out that 'if man happens to be the best sentient being in the universe, then the metaphysical reason for this is that he was created in the image of the All-Knowing'.[22] The human being is, then, the highest expression of the divine names and qualities. The human is the earthly creature best able to understand the divine display in creation and within the human itself, and to recognise that with this understanding comes the invitation to emulate God's divine example.[23]

In addition to being the main intended audience of the self-revelatory creation authored by God (as indicated in the above paragraph), humans can, as rational creatures with free will, and irrespective of factors such as gender, race, creed or dogma, choose to manifest the divine qualities in different and challenging circumstances. Unlike other earthly creatures, humans are able to understand and evaluate situations and the spiritual significance of their choices. Imām al-Ghazālī defined human happiness as consisting 'in conforming to the perfections of God most high, and in adorning himself (the human) with the meanings of His (God's) attributes and names in so far as this is conceivable'.[24] A similar view is also found in the thought of Ibn ʿArabī whose ethos has been described by William Chittick as leading people to an existential realization of divine reality 'to the extent of human capacity'.[25] Ibn ʿArabī's view, explained by William C. Chittick, is that spiritual realisation 'requires becoming characterised by the divine names (*al-takhalluq bi-asmāʾ Allāh*)', which results in harmony between God and the human soul, and results in a transformed, virtuous (human) character'. Pertinently, Chittick notes that for Ibn ʿArabī 'the science of ethics (*akhlāq*)' was not aimed just at understanding good behaviour but 'at understanding the soul's rootedness in the divine names and mapping out the path of becoming characterised by them.'[26] Thus, alongside contemplation of

the divine names, Islamic spirituality emphasises conduct aligned with the relevant principles that are enshrined in the divine names.[27]

Many of the divine names delineate ethical values which humanity can emulate, albeit in limited manner. Among these ethical benchmarks are the qualities of compassion, peace, justice, equity, magnanimity, protection and preservation, revivification and restoration, which are denoted by the divine names 'the All-Gracious' (*al-Raḥmān*), 'the Merciful' (*al-Raḥīm*), 'Peace' (*al-Salām*), 'the Just' (*al-ʿAdl*), 'the Equitable' (*al-Muqsiṭ*), 'the Magnanimous/Generous' (*al-Karīm*), 'the Protector' (*al-Ḥafīẓ*), 'the Preserving Sustainer' (*al-Qayyūm*), 'the Enlivener/Revivifier' (*al-Muḥyī*), 'the Restorer' (*al-Muʿīd*). These names, and the qualities they denote, should strike socio-ecological and environmentalist chords in the reader.

In the Qur'an the names frequently appear as direct references to God, such as the names 'the All-Gracious' (*al-Raḥmān*) and 'the Merciful' (*al-Raḥīm*), found at the start of every Qur'anic chapter, except for the ninth.[28] Less frequently, a divine name is derived from a verb which is used in the Qur'an with reference to God. For instance, the name 'the Equitable' (*al-Muqsiṭ*) is derived from the scriptural use of the verb *aqsaṭa* (meaning to behave 'justly', 'equitably', to 'act fairly')[29] in verses such as Q. 5:42; 7:29. The relevant phrases from these verses are: 'Verily, God loves the equitable/just' (Q. 5:42) and 'Say my Lord commands fairness/justice (*qisṭ*)' (Q. 7:29). The latter resonates with the phrase, 'Verily God commands justice (*ʿadl*) and doing good' (Q. 16:90), from which another divine name, 'the Just', (*al-ʿAdl*) is derived. Another evocative verse in which *ʿadl* is mentioned is Q. 6:115: 'The Word of your Lord is perfected through sincerity and through justice (*ʿadl*)'.[30]

Confirmation and counterpoise (tawāzun) among the divine designations

The pivotal Qur'anic theme of balance (discussed in Part 2, specifically 2a.i and 2b.iii) is also found in how several entities are presented as pairs in the Scripture.[31] This includes the divine names themselves.[32] As a norm, the Scripture refers to the divine names in pairs (with or without the definite article 'al'), e.g., 'the Gracious, the Merciful' (*al-Raḥmān, al-Raḥīm*; e.g., Q. 1.1); 'the Mighty, the Wise' (*al-ʿAzīz, al-Ḥakīm*; e.g., Q. 57:1); 'the Listening, the Seeing' (*al-Samīʿ, al-Baṣīr*; e.g., Q. 40:20); 'Near, Responsive' (*Qarīb, Mujīb*; e.g., Q. 11:61);[33] 'All-Forgiving, Merciful' (*Ghafūr, Raḥīm*; e. g., Q. 2:173) etc. There is an internal dynamic at work between the paired names. At times they offer mutual confirmation, such as in the names of mercy, 'the Gracious, the Merciful' (*al-Raḥmān, al-Raḥīm*) and 'All-Forgiving, Merciful' (*Ghafūr, Raḥīm*). At other times, they serve to complement each other; for instance, 'the Exalted, the Tremendous' (*al-ʿAlī, al-ʿAẓīm*; e.g., Q. 2:255), in which the affirmation of God's sublime status is followed by a complementary affirmation of God's tremendous gravitas and power, providing an evocative equipoise between divine 'height' and 'weight'. At other times, one

name counterbalances another. For instance, the pair 'the Mighty, the Merciful' (*al-ʿAzīz, al-Raḥīm*; e.g., Q. 44:42) exemplifies a reassuring counterpoise between divine might and divine mercy: the almighty God is merciful. A striking example of counterpoise is found in Q. 6:165, which ends with 'verily, your Lord is Swift in retribution and indeed, He is All-Forgiving, Merciful'. Similarly, the internal equipoise between different divine characteristics is evident in 'titular' designations of God such as, 'the Possessor of Majesty and Magnanimity' (*Dhū'l-jalāli wa'l-ikrām*; Q. 55:78). Such equipoise (*tawāzun*) points again to the fundamental principle of qualitative balance in the Qur'an.[34]

In addition to their internal dynamic, paired divine names are regularly placed at the end of a Qur'anic verse or clause, where they provide a rhyming end point.[35] In my view, they also relate the contextual content back to God through the specific named aspects of Him, and have consequential hermeneutical functions within the Qur'an.[36] A perusal of the Qur'an shows how names of God can influence the interpretation of surrounding text, be that to affirm an assertion, exhortation or injunction given in a preceding verse, or to temper or even forestall it. Not infrequently, reminders of mercy and forgiveness, in the form of divine designations, serve to circumscribe calls for severity, which may also be supported by other pertinent divine designations. At times, such merciful reminders provide an alternative option; at times they mitigate proclamations.[37]

Islamic categorisation of the divine names is customarily made according to a binary division into the Names of Majesty (*asmā' al-jalāl*) and the Names of Beauty (*asmā' al-jamāl*). The principles/qualities of rigour on the one hand and of mercy on the other fall into these two streams. The 'division' is itself based on the divine designation, 'Possessor of Majesty and Magnanimity' (*Dhū'l-jalāli wa'l-ikrām*), where the former quality expresses splendour and glory and the latter expresses graciousness and mercy. On closer study, the names of majesty and beauty are not separated unequivocally but, rather, they are often, if not always, intimately intertwined: two sides of the same coin, with each side showing through the other side. God's majesty is beautiful and His beauty is majestic. His mercy is glorious, and His glory is merciful. Justice is both authoritative and merciful. Forgiveness is merciful and majestic. In contemplating the list of divine names, the two faces of each of them are discernible. Discerning the two faces may sometimes reveal a spiritual interpretation that at first glance seems counterintuitive. For instance, considering the divine designation 'the Avenger' (*al-Muntaqim*), 'divine avengement' sounds entirely rigorous; but if God's avengement is in fact to redress a situation by bringing in more of His goodness where it is lacking, then the mercy of *al-Muntaqim* is utterly beautiful. This is, needless to say, another instance of qualitative counterbalance: dispelling darkness with light.[38] This balance between majesty and beauty/mercy is also expressed in the dual aspects of God's lordship, His *rubūbīyah*,[39] found in the literal connotations of the verbal root, namely, absolute authority and tender nurturing care.

Lordship (rubūbīyah) and nurturing care (tarbiyah) – a balance of power and mercy

The Arabic verbal root *r-b-b* – from which the words for 'Lord' (*Rabb*)[40] and 'lordship' (*rubūbīyah*) are derived – carries the meanings not only of ownership and authority, but also of nurturing care.[41] The related word *tarbiyah* (from the second form of the verb, *r-bb-b*) refers to gradually bringing something to a state of completion;[42] it is used for how a person is brought up, especially with regard to their manners. Good manners are rooted in virtue; the reference here is not to superficial things like table etiquette etc., but to how a person conducts themselves qualitatively, how they treat others and self, and what qualities/virtues they manifest through their life. The Lord is one who nurtures those in His care, providing for them, and teaching and empowering them to be strong in goodness. Human beings need to reflect this balance of qualities, for if power (majesty) is not infused with beauty (mercy, truth, generosity, compassion, nurturing care, preservation, protectiveness, faithfulness etc.), it becomes tyrannical. For example, fascism and authoritarianism, by definition, manifest the harsh and oppressive assertion of authority and power without mercy, truth or care. And when humankind exerts its technological prowess without care for the rest of the earth's inhabitants, or for the planet itself, humans then behave like tyrants. If on planet earth humankind is potentially the best manifestation of the attributes in the divine names, humans will have to choose to echo the divine nurturing care towards the earth and its diversity of life-forms. The encyclical (LS 68) also points out that, 'the Bible has no place for a tyrannical anthropocentrism unconcerned for other creatures.' As the most powerful and intelligent species on earth, humankind is in a position of authority, responsibility and service; this requires self-curtailment and respect for and support of others.[43] The responsibility that comes with holding power, as the best of every tradition teaches, is to wield it mercifully, wisely and justly. 'If a mistaken understanding of our own principles has at times led us to justify mistreating nature, to exercise tyranny over creation, to engage in war, injustice and acts of violence, we believers should acknowledge that by so doing we were not faithful to the treasures of wisdom which we have been called to protect and preserve.' (LS 200)

Raḥmah (mercy) as the core divine quality

A core attribute of God is *raḥmah* which signifies 'mercy', 'compassion', 'grace', and also 'tenderness of heart', 'beneficence', 'kindness'.[44] Through its verbal root (*r-ḥ-m*),[45] *raḥmah* is related to mutual human understanding, love and respect (*tarāḥum*), and also to the word for womb (*raḥim/riḥm*), with connotations of kinship and maternal love, care and nurturing. There are numerous divine designations denoting aspects of mercy; for instance, *al-Wadūd* ('the Deeply-Loving'), *al-Raʾūf* ('the Compassionate'), *al-Laṭīf* ('the Kind'), '*al-Ḥalīm*' (the Gentle), '*al-Ḥannān*' (the Benign), *al-Ghafūr* ('the All-Forgiving'), *al-Ṣabūr* ('the Very Patient'), *Dhū'l-faḍli'l-ʿāẓīm* ('Possessor of tremendous grace'), *al-Shāfī* ('the Healer') among many others. Foremostly, the attribute of *raḥmah* is enshrined in the

divine names *al-Raḥmān* ('the All-Gracious') and *al-Raḥīm* ('the Merciful'). Both names are intensive grammatical forms of the active participle *rāḥim,* which is used to describe someone who is merciful, compassionate and kind.[46] The former name, *al-Raḥmān*, is more intensive and denotes one who has unconditional, all-inclusive mercy, while the latter, *al-Raḥīm*, denotes one who shows mercy to a particular individual or group.[47] Following Ibn ʿArabī, Osman Bakar describes the distinction between the two names in terms of creative mercy, expressed by the name *al-Raḥmān*, and salvific mercy expressed by the name *al-Raḥīm*.[48] The divine names *al-Raḥmān* and *al-Raḥīm* form part of the key Islamic consecratory phrase, 'In the name of God, the All-Gracious, the Merciful' (*bi-ism Allāh al-Raḥmān al-Raḥīm*), which is found at the start of every chapter of the Qur'an, except the ninth.[49] This formula is used countless times by Muslims in the course of their daily lives, not just in ritual worship but also at the start of anything significant, at the start of every meal, or when welcoming someone to one's home. In short, this invocation of God (*Allāh*) and His merciful names *al-Raḥmān, al-Raḥīm* permeates a Muslim's life.

Based on Q. 17:110 – 'Say: invoke *Allāh* or invoke *al-Raḥmān*, whichever you invoke, to Him belong the names most beautiful' – which indicates an equivalence between the name *Allāh* and the name *al-Raḥmān*, the latter name, *al-Raḥmān,* is said to encompass all the other most beautiful names of God, like the comprehensive name *Allāh* itself does.[50] In other words, the Islamic concept of mercy includes all other divine attributes, including the sterner ones like justice. Q. 6:12 contains an especially telling phrase which indicates that the most mighty and glorious God, the One to whom the heavens and the earth belong, chose to make mercy His default mode. 'Say, to whom belongs all that is in the heavens and the earth? Say, to God, He has inscribed mercy upon Himself.' The literal wording of the last clause is highly evocative: 'He inscribed mercy upon His self/soul' (*kataba ʿalā nafsiHi 'l-raḥmah*).[51] No other quality of God is described in this way in the Qur'an. While this verse is commonly understood as meaning that God made mercy His paramount obligation, the literal wording – 'God inscribed mercy upon His self/soul' – also shows how intrinsic mercy is to God. He wrote it into His very soul; He made mercy the essential quality. There is room here for the theological debate as to whether God can be anything other than merciful. My understanding of this phrase is that it highlights that God – who is all-powerful, as well as infinitely merciful – chose at a most profound and deeply intrinsic level to be merciful, first and foremost, and to prioritise all that is merciful. Q. 6:12 seems to indicate that God chose to make mercy His default state and mode of action. There is also a saying attributed to the Prophet ﷺ that God said, 'My mercy precedes/overcomes My anger' (*sabaqat raḥmatī ghaḍabī*).[52] The implication for humanity, with our limited but full package of powers and capacities,[53] including the capacity to be merciful and to wield power, is that we also have to choose to make mercy our default mode of living and behaving.

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Section 1b has introduced the concept of the Islamic divine names and looked at how balance functions with regard to the divine designations. Other fundamental Qur'anic principles of balance, such as justice, moderation and rectitude are the subject of 2b.iii. The role of the principles enshrined in the divine designations, as an ethical paradigm and overarching framework, is elaborated on in 2b.vi. (The Appendix expounds a wider set of divine designations and relates some of those to ecological concerns.) Before those discussions, I turn to the other main source for this study, Pope Francis' encyclical, *Laudato Si'*.

iii) The Papal Encyclical: Laudato Si': On Care for our Common Home

As mentioned in the overview, it is hoped that this study will be the first of a mini-series which identifies and expounds the resonances between *Laudato Si'* and the Qur'an. Being the first, this work focuses primarily on the preliminary part of LS, namely the Pope's own introduction to the encyclical, which presents its key themes. This is the subject of Part 3 of this study. As was done for the Qur'an, here I provide a brief introduction to LS, situating it among other papal encyclicals and within the tradition of Catholic social teaching. Thereafter, I give a short summary of the themes of LS's chapters, from the perspective of the Qur'anic principles expounded in this study, indicating which parts of this study address some of these LS themes.

The tradition of papal encyclicals and Catholic social teaching

Starting with Pope Benedict XIV's letter (released in 1740s), the Catholic Church has a tradition of issuing such epistles (cf. *risālāt*) by the Pope of the time.[54] These papal epistles, called encyclicals, were, in the first instance, intended to provide guidance to Catholic bishops for their ministry, but since the Second Vatican Council, they are intended 'for the benefit of all people of God and people of good will'. In 1963, Pope John XXIII was the first to address his encyclical to 'all people of good will'; going further, Pope Franics addressed *Laudato Si'* to every person on the planet. The corpus of encyclicals is a major part of the repository of Catholic social teaching,[55] providing guidance based on the two sources of divine revelation in the Catholic Church, the Bible and tradition.[56] In a custom not dissimilar to the naming of the chapters of the Qur'an (whereby the word/s of the title of a chapter are taken from word/s mentioned in the chapter), papal encyclicals take their title from the first words of the opening sentence. The titles of papal encyclicals were always in Latin, until Pope Francis broke with tradition in *Laudato Si'* by citing St Francis in Old Italian. The encyclicals are much studied, especially in the Catholic community, and give birth to further commentaries, books and documents on the encyclical topics. Pope Francis has issued the encyclicals *Lumen Fidei* (2013), which was mainly written by his predecessor Pope Benedict XVI, *Laudato Si'* (2015) and *Fratelli Tutti* (2020).[57] In addition,

he has issued several other documents including the apostolic exhortations *Evangelii gaudium* (2013), *Christus vivit* (2019), which was the outcome of the Synod on Youth and Vocational Discernment of 2018, and *Querida Amazonia* (2020), the outcome of the special Synod on the Amazon of 2019. *Laudato Si'* was released in June 2015, before the COP 21 meeting in Paris that year.[58]

Laudato Si' builds on previous social teachings of the Catholic Church.[59] From the late 19th century, with the publication of Pope Leo XIII's encyclical *Rerum Novarum* ('New Things: On Capital and Labour), the papal treatises have addressed the pressing issues of the time, often analysing modern socio-economic realities.[60] Séverine Deneulin notes how successive Popes have expanded on the analyses of their predecessors, in light of particular global concerns of their own times.[61] *Rerum Novarum* addressed the effects of the Industrial Revolution and workers' rights. In 1961, Pope John XXIII issued *Mater et Magistra* ('Mother and Teacher: On Christianity and Social Progress'), which addressed global poverty and inequality, and highlighted the needs/rights of rural workers and the inequality between richer and poorer countries; his *Pacem in Terris* ('Peace on Earth', 1963) had the Cold War as its setting. *Populorum Progressio* ('On the Progress of Peoples') was issued in 1967 by Pope Paul VI during the UN's Development Decade, and at the time when several countries were undergoing decolonisation. Pope John Paul II's *Sollicitudo Rei Socialis* ('On Social Concerns', 1987) came at a time of falling dictatorships around the world and prevailing communism in Eastern Europe. *Caritas in Veritate* ('Charity in Truth', 2009) was issued by Pope Benedict XVI in the wake of the global financial crisis of 2008. Pope Francis' *Laudato Si'* addresses the global climate crisis, its human causes and its destructive effects, while his *Fratelli Tutti* ('Brothers and Sisters All', 2020) addresses the deeply concerning trend of national populist political systems growing in too many countries across the world. These encyclicals comprise Catholic social teaching.[62]

Even from the brief outline above, it is clear how LS continues the papal tradition of addressing concerns for human dignity and equality, by highlighting issues such as poverty, inequality between countries, and the need for justice and provision of support, and illustrating how these issues have led to and result from the climate crisis. Similarly, LS questions prevailing economic theories and systems. LS relates all these issues to each other and accordingly calls for an integrated response to them, a wholistic approach. Deneulin's book traces in detail how the Catholic vision of 'integral human development' in the 1960s has evolved towards the 'integral ecology' approach of LS in the face of the climate crisis.[63]

Laudato Si' through the methodological perspective of Catholic social teaching

Embodying the inductive methodology of Catholic social teaching, LS implicitly approaches its topics through the triple lens of 'see/observe, judge/discern and act', which has Biblical roots and was

adopted by Pope Francis' predecessor Pope John XXIII (*Mater et Magistra*, 1961).[64] This approach shifts the methodological focus of social analysis towards an historical consciousness which emphasises the changing particulars and contingents.[65] LS implicitly uses this triple lens, also known as the pastoral cycle.[66] The first two chapters of *Laudato Si'* present the pressing eco-environmental problems of our time (Chapter One: 'What is Happening to Our Common Home') and the wisdom of Catholic teachings (Chapter Two: 'The Gospel of Creation') and constitute the elements of observation and reflection. The third chapter ('Human Roots of the Ecological Crisis') identifies the philosophical and historical roots that have led to our current predicament and provides a critical judgement of the causes of the crises discussed in the first chapter. The fourth chapter ('Integral Ecology') assess these issues from ethical and spiritual perspectives. Chapters Five ('Lines of Approach and Action') and Six ('Ecological Education and Spirituality') offer practical guidance for ecological and social action to be undertaken; this is the element of action.[67]

Thematic summary of Laudato Si', chapters 1–6

It seems suitable in this study, to focus on the themes of LS from the theo-ethical perspective of the Qur'anic principles of unity, compassion, balance, justice, moderation, and within the framework of the physical and metaphysical interconnections between humanity, the natural world and God.[68]

Distilled, the core theological and ethical themes of *Laudato Si'* are encapsulated in the title, particularly the words 'praise', 'care' and 'common', which denote, respectively, 'appreciation', 'respect' and 'sharing'.[69] Praise of God arises through witnessing the wonders of His creation on earth and discerning His presence in all of it (e.g., LS 10, 11, 87, 233) – a point of view exemplified by St Francis of Assisi. This discernment and witnessing extend our understanding of the 'universal communion' of all things and of the earth as a common inheritance for all (LS 76). This leads to a sense of sharing the earth and its natural resources fairly amongst all (LS 95–95) and to a respect for and compassionate care of the diverse life-forms on earth, including all people, especially poor and vulnerable individuals, communities and nations (LS 91, 210). The concept of care also leads to a careful and wholistic understanding of growth and development, both spiritual and in the more economic sense of progress (e.g., LS 60, 202). Stemming from 'praise', 'care and 'common', the concepts of human dignity, equality, and justice run throughout the encyclical, alongside calls for environmental care of our planet and moderation in use of its resources. LS 139 takes the term 'environment' as really meaning, 'a relationship existing between nature and the society which lives in it'; the same paragraph continues, 'nature cannot be regarded as something separate from ourselves … we are part of nature …'. It is this strong sense of everything being interconnected that produces the Pope's call for an integral ecology.

The first and third chapters of LS address the deteriorating environmental conditions of the world with grave concern and highlight the human causes that have led to this critical state.[70] Thus, Chapter One looks at pollution and climate change; concerns about equitable access to water; the loss of bio-diversity; the diminishment of the quality of human life, both physical and societal; inequalities and injustices across the globe; and the weak responses of people in power, especially of those who have contributed most to the crises of our planet. LS 22 notes that only limited progress has been made in 'counteracting the throwaway culture' and that 'we have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximising their efficient use, reusing and recycling them.' This sentiment in favour of circular production echoes that of the 'father of modern ecology', Eugene Odum (d. 2002). Ecologist Kent Peacock cites Odum's advice that mankind's understanding of ecological systems and moral responsibility could, if they were made to keep up with 'man's power to effect changes', change the 'unlimited exploitation of resources' into 'unlimited ingenuity in perpetuating a cyclic abundance of resources'.[71]

Chapter Three approaches the ecological crisis by identifying the human actions that have led to our current predicament: a human-centred attitude (which has as its corollary an exploitative view of everything non-human) coupled with the indiscriminate use of technological and fiscal power for the purposes of supposed endless progress and excessive profit (which has as its corollary an exploitative view of everything, including people, even those yet to be born). Such a devoted, exploitative pursuit of power and wealth constitutes a form of that worst of sins according to the Qur'an, namely, associating partners with God (*shirk*). LS calls again and again for the *social and environmental justice*, with which Muslims are familiar from the Qur'anic and prophetic perspectives on care for the poor, the vulnerable, and the environment. For instance, 'A true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment so as to hear both the cry of the earth and the cry of the poor' (LS 49), reminds Muslims of the Qur'anic verses that call for the equitable distribution of wealth and of taking care of the needs of the poor (e.g., Q. 59:7; 2:177).

Interposed between the first and third chapters of LS is a contrasting chapter that is a reminder of the Christian scriptural wisdom regarding all life on earth. The harmony and balance of creation, the unity and communion of the universe as a creation of God, and the intimate relationship that every creature has with its Creator indicated in LS Chapter Two all resonate with the Qur'anic and Islamic concepts of balance (*mizān*), the signs of God (*āyāt Allāh*), His Unity (*tawḥīd*) and Qur'anic verses such as those which speak of everything in creation having its own praise of God (Q. 24:41).[72] LS emphasises the interconnectedness of the earth, humanity, and the natural world of our planet –

through God, in God and for God (in Islamic terms *bi'Llāhi wa li'Llāhi*). Q. 55:10, 'And the earth, He (God) set it down for (all its) beings' comes to mind when LS 93 states that, 'the earth is essentially a shared inheritance, whose fruits are meant to benefit everyone. For believers, this becomes a question of fidelity to the Creator, since God created the world for everyone. Hence every ecological approach needs to incorporate a social perspective which takes into account the fundamental rights of the poor and underprivileged.' *Laudato Si'* repeatedly appeals for an integral ecology that attends to the crucial matters of justice, equity, care for the vulnerable, as well as care for the environment and the natural world of our common home.

Doctrinal differences aside, the section in Chapter Two on 'The Gaze of Jesus' and the references to the 'universal Lordship', 'present throughout creation', bring to mind the Qur'anic phrase, 'Wheresoever you turn, there is the Face of God' (Q. 2:115). When LS 99 says of Christ, 'All things have been created through him and for him', Muslims think of the divine saying (*ḥadīth qudsī*), 'I was a hidden treasure and I loved to be known, so I created creation'.[73] When LS 100 says, 'The very flowers of the field and the birds which his human eyes contemplated and admired are now imbued with his radiant presence', Muslims think of how all creation is an existential 'sign' of God's presence through His qualities and action.[74]

Chapter Four of LS develops the argument for an integral ecology to address the global crisis and 'which clearly respects its human and social dimensions' (LS 137). 'We are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental' (LS 139). With a comprehensive approach, Chapter Four addresses several ecologies: environmental, economic, social, and cultural. These require concomitant ethical principles. The principles promoted by LS have been presented as, 'ten green commandments' by Joshtrom Isaac Kureethadam, and pertain to: taking care of our home; listening to the poor; rediscovering a theological vision of the natural world; acknowledging that abuse of creation is an ecological sin; acknowledging the human roots of the crisis; developing an integral ecology; learning to live in a new way; education, ecological spirituality and cultivation of ecological virtues.[75] All of these have an equivalent in Qur'anic ecology as demonstrated in this study.

Chapter Four also draws attention to the principle of common good enunciated in the Second Vatican Ecumenical Council, namely, that common good is 'the sum of those conditions of social life which allow social groups and their individual members relatively thorough and ready access to their own fulfilment' (LS 156). Furthermore, this chapter speaks of intergenerational justice and the reparations due to generations of humans [and other creatures] who are yet to be born (LS 159–160).[76] And even here, the encyclical skilfully reminds the reader not to forget the suffering of the

poor today, citing Benedict XVI's call for not only 'intergenerational solidarity' but also 'a renewed intragenerational solidarity' (LS 162).

The fifth and sixth chapters of LS provide guidance on how to apply integral ecology in action. Chapter Five emphasises the different dialogues that are needed on economics, policies, transparency in decision making, and between religion and science. For its part, the last chapter of LS, looks at the types of educational reforms that are needed in regard to lifestyle, the relationship between humanity and the environment, and ecological conversion. It also promotes spiritual values, the essences of which are familiar to Muslims from Qur'anic and prophetic teachings: 'a spirit of generous care, full of tenderness' and an awareness that 'the Father has linked us to all beings' (LS 220); that 'each creature reflects something of God and has a message to convey to us' (LS 221); 'an alternative understanding of the quality of life… a prophetic and contemplative lifestyle, capable of deep enjoyment free of the obsession with consumption' (LS 222); sobriety and humility (LS 224); inner peace, which is 'closely related to care for ecology and for the common good because, lived out authentically, it is reflected in a balanced lifestyle together with a capacity for wonder… a deeper understanding of life' (LS 225). Pope Francis calls for 'a serene harmony with creation… contemplating the Creator' (LS 225), for 'serene attentiveness' (LS 226) and 'to stop and give thanks to God' (LS 227), and to regain the virtues that will promote 'a genuine culture of care for the environment' (LS 229). He reminds us that 'an integral ecology is also made up of simple daily gestures which break with the logic of violence, exploitation and selfishness' (LS 230) and that love pertains to mutual care, including at the civic and political levels (LS 231).

The last two paragraphs of the encyclical are, appropriately, an affirmation of God's faithful love and care (LS 245) and offer praise to Him. They also contain two prayers (LS 246), a universal prayer for the earth, and a Christian prayer in union with creation. These paragraphs and prayers remind the Muslim of various verses of the Qur'an, not least the first chapter, which is 'The Opening' prayer of the Scripture, and to which St Francis' canticle is compared at the start of Part 3 of this study. For now, we also affirm, 'Our Lord! You have not created this (the heavens and the earth) in vain; glory to You!' (Q. 3:191); and we pray, 'Our Lord, give us mercy (*raḥmah*) from Your Presence and prepare for us right-discernment regarding our matter' (Q. 18:10). In God we seek help; amen (*wa bi'llāhi nastaʿīn; āmīn*).

[1] Pope Francis, *Laudato Si': Encyclical Letter On Care for our Common Home*, Vatican City, Libreria Editrice Vaticana, 2015. Available at: https://www.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf.

[2] Jakub Koláček's article (pp. 223–225) rightly notes that an act of interpretation is necessary in applying certain Qur'anic teachings to ecological matters; see Jakub Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', *Archiv Orientální,* Prague 88, no. 2 (Prague, 2020), pp. 221–248.

[3] *Ḥadīth*, pl. *aḥādīth*, are individual sayings ascribed to the Prophet; *ḥadīth* is also the generic name used for such literature.

[4] While there is no paucity of heavyweights in Islamic intellectual and spiritual heritage, I have restricted myself to just a few of the greats. Jaʿfar al-Ṣādiq is revered by most Muslims for his learning and piety, and both Ghazālī and Ibn ʿArabī were known as 'Muḥyīʾl-Dīn', an honorific title meaning 'Reviver of the Faith'. More information on them is given in section 1b.ii.

[5] It is a Muslim tradition to invoke blessings on the Prophet, and other prophets too, after his/their name is mentioned. In written works, this is often done by the inclusion of the circular calligraphic blessing in Arabic. It means 'God bless him and give him peace'. It is believed that with the articulation of every such invocation of blessings, God's blessings flow also to the invokers and, through their invocation, into the world.

[6] This is not the place to delve into the details of academic debates about the history of the Qur'anic text. For a detailed study of the history of the Qur'anic text, based on Islamic primary sources, including the purely recitational stages, and the matter of the traditional Islamic variant readings and the implementation of diacritics and vowelling to the written text, see Yasin Dutton, 'The Form of the Qur'an: Historical Contours', in *The Oxford Handbook of Qur'anic Studies*, edited by Mustafa Shah and Muhammad Abdel Haleem (Oxford: Oxford University Press, 2020), pp. 182–193.

[7] The Meccan period was from 610–622 and the Medinan period was from 622–632. For a biography of the Prophet's life in English, see Martin Lings, *Muḥammad: His Life Based on the Earliest Sources*, 2nd ed. (Cambridge, UK: Islamic Texts Society, 1991).

[8] For more information on the multiple analyses of the literary structure of the Qur'an see Salwa El-Awa, 'Linguistic Structure', in *The Wiley Blackwell Companion to the Qur'an*, 2nd ed., edited by Andrew Rippin & Jawid Mojaddedi (Hoboken, NJ/Chichester, West Sussex, UK: John Wiley & Sons Ltd, 2017).

[9] The Qur'anic term is *wajh Allāh.* The word *wajh* literally means 'face' or 'countenance', but also implies 'being'; see Elsaid M. Badawi and M.A.S. Abdel Haleem, *Arabic-English Dictionary of Qur'anic Usage* (Leiden/Boston: Brill, 2008), p. 1014.

[10] This point is made also by most contemporary writers on the subject, including those cited in this study. For discussions of the sanctity of nature see, Part 2b.iv; Part 3.3 (for the term *āyāh/āyāt*), 3.5, 3.8 and 3.9.

[11] The Appendix provides an idex of the Islamic divine names used in this book, and more details on, plus examples of, the different syntactical structures used for divine designations in the Qur'an. Here I give select background information on the role of the names of God in Islamic thought and practice. As already noted, this study will highlight pertinent principles enshrined in the Islamic divine designations, and signal how these pertain to ecological virtues.

[12] Seyyed H. Nasr, et al., eds., *The Study Qur'an: A New Translation and Commentary* (HarperOne, 2015), p. 29.

[13] Imām Jaʿfar al-Ṣādiq is a direct descendent of the Prophet and revered by Muslims from different denominations. For a short introduction to him and an example of comments ascribed to him which link to the divine qualities, see Farhana Mayer (transl.), *Spiritual Gems: The Mystical Qurʾān Commentary Ascribed to Jaʿfar al-Ṣādiq* (Louisville: Fons Vitae, 2011), pp. xiii–xvi and pp. xxxviii, 96–97, where, commenting on 'God is the Light of the heavens and the earth' (Q. 24:35), Imām Jaʿfar provides a list of states (*aḥwāl*) and qualities, both human and divine, and points out, 'all (the lights) are from the lights of (God) the Truth (*al-Ḥaqq*)', thereby interpreting the divine lights as divine qualities.

[14] Muḥyīʾl-dīn Muḥammad al-Ghazālī is one of the most influential theologians in Islamic history and still much studied. His book on the divine names has been translated by David Burrell and Nazih Daher in their work *The Ninety-Nine Beautiful Names of God, al-Maqṣad al-asnā fī sharḥ asmāʾ Allāhi al-ḥusnā* (Cambridge: Islamic Texts Society, 1992).

[15] Muḥyīʾl-dīn Muḥammad Ibn ʿArabī, known as 'the Greatest Shaykh', may indeed be described as the foremost metaphysician among Muslim mystics. He is one of the most significant writers in Sufism. For an introduction to his thought, see William Chittick, 'Ibn ʿArabī', *Stanford Encyclopaedia of Philosophy* (2014), https://plato.stanford.edu/archives/sum2018/entries/ibn-arabi.

[16] Ibn ʿArabī's visionary discourses encompassed the most exalted heights and included more than one treatise in which he gave the divine names individual voices, as it were, and portrayed them engaged with each other in internal Divine considerations on the matter of *creating* creation; see Gerald Elmore (transl.), 'Four Texts of Ibn al-ʿArabī on the Creative Self-Manifestation of the Divine Names' in the *Journal of the*

Muhyiddin Ibn ʿArabī Society 29 (Muhyiddin Ibn ʿArabī Society, 2001). See for example p. 2, where Elmore states that the 'common subject matter [of the four texts], the creative interactivity of the specific archetypal manifestations of Divinity known in Islamic theology as the excellent Names of God' is presented as 'a kind of dramatic dialogue (*ḥiwār*) between the personified Names'. Ibn ʿArabī wrote of the divine names that they 'yearned for the manifestations of their impressions in existence' (Elmore, 'Four Texts', p. 7). See also, Ismail Lala, *Knowing God: Ibn ʿArabī and ʿAbd al-Razzāq al-Qāshānī's Metaphysics of the Divine,* Islamic philosophy, theology and science texts and studies, vol. 109 (Leiden/Boston: Brill, 2019), pp. 70–71.

[17] Osman Bakar notes that cosmic phenomena manifest divine names and qualities, and that Sufi cosmology describes the cosmos as 'God's Self-disclosure, meaning disclosure of His Names and Qualities'; Osman Bakar, *Qur'anic Pictures of the Universe: The Scriptural Foundation of Islamic Cosmology* (Gadong: UBD Press/Petaling Jaya: Islamic Book Trust, 2016), p. 23. See also, Ibrahim Özdemir, 'If human beings ponder and scrutinize the very structure of natural phenomena, we can deduce the existence of a Creator who is All-Powerful, All-Knowing, and All-Merciful'; Ibrahim Özdemir, 'Towards an Understanding of Environmental Ethics from a Qur'anic Perspective', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge, MA: Center for the Study of World Religions, Harvard Divinity School, 2003), p. 8.

[18] See Part 2b.vi below for the relationship between the divine designations and human nature.

[19] Elmore, 'Four Texts', see pp. 7–8.

[20] Annabel Keeler, *Sufi Hermeneutics: The Qur'an Commentary of Rashīd al-Dīn Maybudī* (London: Oxford University Press with The Institute of Ismaili Studies, 2006), p. 42.

[21] Datuk Osman Bakar is Emeritus Professor of Philosophy at the University of Malaya and author of several works.

[22] Osman Bakar, *Environmental Wisdom for Planet Earth: The Islamic Heritage*, revised 2nd edition (Kuala Lumpur: University of Malaya/Islamic Book Trust, 2022), p. 74.

[23] 'The purpose of man's existence is to reflect to the best degree the Light of the Divine Names and Qualities'; Bakar, *Qur'anic Pictures*, p. 98. Cf. LS 83, 'human beings, endowed with intelligence and love, and drawn by the fullness of Christ, are called to lead all creatures back to their Creator.'

[24] Burrell and Daher, *Ninety-Nine Names*, p. 30, ff.

[25] Chittick, 'Ibn ʿArabī', §2.2.

[26] Chittick, 'Ibn ʿArabī', §2.2.

[27] These thirteen lines, plus notes (on Ghāzālī's definition of human happiness and Chittick on Ibn ʿArabī), are reproduced here from a booklet I wrote named *Divine Interventions Through Invocations of the Most Beautiful Names of God* (*Asmā' Allāhi al-Ḥusnā*), (2020), no publisher, p. 5. This early version electronic booklet is already circulating in some circles. An expanded, revised edition is in preparation.

[28] It is said that the absence of the formula 'In the Name of God the All-Gracious the Merciful' from Chapter 9 of the Qur'an, is made up for by the unusual use of the formula *within* a Qur'anic verse, in Q. 27:30. With this, the number of times the formula appears in the Qur'an matches the number of its chapters.

[29] See Edward W. Lane, *An Arabic-English Lexicon*, vol. 6 (London: Williams & Norgate, 1863–1893), p. 2523.

[30] Justice, uprightness and moderation are discussed further in Part 2b.iii, *Fundamental Qur'anic principles of balance*.

[31] See Sabrina Schmidtke, 'Pairs and Pairings', in *Encyclopaedia of the Qurʾān*, vol. 4, edited by J. D. McAuliffe (Leiden/Boston: Brill, 2004), pp. 1–9.

[32] Schmidtke, 'Pairs and Pairings', pp. 5–6, section on 'Double divine epithets'.

[33] This verse leads into one of the Qur'anic accounts of the poignant story of the Prophet Ṣāliḥ and the she-camel, discussed at length later in this study in a section regarding animal rights; see the discussion in Part 3.8 on LS 11.

[34] The internal dynamics of emphasis and complementarity in certain rhymed pairs of divine names is briefly noted by Neal Robinson (*Discovering the Qur'an: A Contemporary Approach to a Veiled Text*, 2nd ed. (London: SCM Press, 2003), pp. 200–1). Schmidtke ('Pairs and Pairings', pp. 5–6) also fleetingly notes synonyms and complementarity among the divine epithets.

[35] Robinson (*Discovering,* p. 198) notes that paired names are found especially in Medinan surahs, functioning as 'refrains at the end of sub-sections'. Devin Stewart ('Divine Epithets and the Dibachius', *Journal of Qur'anic Studies* 15 (2013), p. 34) notes that pairs of the divine epithets (i.e., divine designations) are frequently found 'in rhyme position, at the ends of verses'.

[36] Contemporary academia has tended to view the names of God as serving a predominantly doxological or rhythmic literary purpose in the Qur'an, see, for instance, Gerhard Böwering ('God and His

Attributes', in *Encyclopaedia of the Qurʾān,* vol. 2, edited by J.D. McAuliffe (Leiden/Boston: Brill, 2002), p. 319); Schmidtke, ('Pairs and Pairings', p. 5). Undoubtedly the divine names in the Qur'an *do* serve as laudations of God and *do* have a rhyming function within the scripture. However, it is also accepted by some academics that doxology and rhyme are not the only functions of the divine names in the Qur'an. Robinson (*Discovering*, pp. 200–201) notes, albeit briefly, that rhyme clauses, containing one or more divine names, may serve different contextual functions, such as emphasising particular divine characteristics or Qur'anic statements, clarifying arguments, and providing chapter cohesion or intra-Qur'anic cross-referencing. These nonrhythmic functions of the divine names in the Qur'an require further research. My views are given, very briefly, at the start of the Appendix.

[37] To unpack one example in detail, Qur'an 5:94–98 provides an instance of counterpoise affirmed by divine characteristics which impact the immediate textual content. The general Qur'anic context of these verses is that of the pilgrimage (*ḥajj*), and the restrictions placed on believers regarding hunting during the *ḥajj* days (hunting is forbidden during the pilgrimage days). Verse 94 defines the restrictions as a test from God and contains warning of a painful punishment for transgression. Verse 95 spells out details of the prohibition and of options for compensation or atonement in case of violation of the prohibition; verse 95 also contains an assurance of forgiveness for past infringements, but cautions that future infringements will be penalised; the verse ends sternly 'and God is mighty (*ʿazīz*), taker of vengeance (*dhū intiqām*)'. Verse 96 defines what is permissible. Verse 97 explains why prohibitions regarding the sanctuary exist and ends with: 'God knows all things'. Finally, verse 98 states in conclusion, 'Know that God is stern in retribution (*shadīdu'l-ʿiqāb*) and that God is all-Forgiving (*ghafūr*), merciful (*raḥīm*)'. This provides an affirmative summation of the preceding verses and presents the divine designations on which the balance between forgiveness and punishment hinges: the divine designations which both reflect and, theologically speaking, generate that balance: stern in retribution; all-forgiving and merciful.

[38] Catholic readers will no doubt think of St Francis' prayer: 'Lord make me an instrument of your peace.'

[39] Lane, *Lexicon*, vol. 3, p. 1006.

[40] Lane, *Lexicon*, vol. 3, p. 1003.

[41] Lane, *Lexicon*, vol. 3, pp. 1002, ff.

[42] Lane, *Lexicon*, vol. 3, p. 1002.

[43] Cf. LS 69, which cites the Catechism's criticism of a distorted anthropocentrism: 'Each of the various creatures… reflects in its own way a ray of God's infinite wisdom and goodness. Man must therefore respect the particular goodness of every creature, to avoid any disordered use of things.'

[44] See Badawi and Haleem, *Qur'anic Usage*, pp. 354–355, for the Qur'anic use of the words, *raḥmah, raḥmān* and *raḥīm*; see also the references to Lane's *Lexicon* in the immediately following endnotes.

[45] For discussions of the verbal root *r-ḥ-m,* and the words *raḥmah, raḥmān, raḥīm*, *tarāḥum*, see Lane, *Lexicon*, vol. 3, pp. 1055–1057.

[46] Badawi and Haleem, *Qur'anic Usage*, p. 345; Lane, *Lexicon*, vol. 3, p. 1056 (in the paragraph on *raḥmān*).

[47] Lane, *Lexicon*, vol. 3, p. 1056–1057 (in the paragraph on *raḥmān*).

[48] Bakar, *Qur'anic Pictures*, p. 12.

[49] See endnote 29 above regarding the absence of the formula from the start of Q. 9 and the unusual use of it *within* Q. 27:30.

[50] See also, James W. Morris, 'The Spiritual Ascension: Ibn ʿArabī and the *Miʿrāj* Part I', *Journal of the American Oriental Society* (*JAOS*) 107, no. 4 (1987), p. 646.

[51] This phrase, 'Your Lord has inscribed mercy upon Himself', appears twice in the Qur'an, in Q. 6:12 as noted, where it has a broad and general sense, and in Q. 6:54, where it is addressed more specifically to those who believe, recognise the wrongs they have done, repent and make amends (see the end of Part 3.5 for 6:54).

[52] *Ṣaḥīḥ al-Bukharī*, *Ḥadīth* no. 7453. For *sabaqa* see Lane, *Lexicon,* vol. 4, p. 1299.

[53] This is discussed at length in Parts 2b.v and 2b.vi.

[54] Much of the information on encyclicals presented in this paragraph is gleaned from the website, Catholic Church: Bishops' Conference of England and Wales, *What is a Papal Encyclical?,* 9 June 2015.

[55] For a list of accessible encyclicals and other papal letters and documents, see: https://www.humandevelopment.va/en/risorse/magistero-sociale.html.

[56] See *Dei Verbum*, 'Dogmatic Constitution on Divine Revelation of Vatican Council, Promulgated by Pope Paul VI, November 18, 1965',

https://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19651118_dei-verbum_en.html.

[57] https://www.humandevelopment.va/en/risorse/magistero-sociale.html.

[58] Speaking personally as a Muslim, the *Laudato Si'* is a most beautiful and welcome book – for anyone who believes in God and cares for God's creation, Pope Francis' encyclical provides a theocentric and balanced critique of the causes of the socio-ecological crisis, as well as providing important guidance for the steps that need to be taken to rectify matters. The fact that it contains so much that resonates with teachings within the Islamic tradition shows what a strong common ground the faith communities have for working together on eco-environmental challenges.

[59] LS has several citations from Pope Francis' predecessors, including Pope Benedict XVI (19 references), Pope John Paul II (22 references), Pope Paul VI (LS 4; LS 83, note 53; LS 127, note 102; LS 231) Pope John XXIII (LS 3). In addition, there are citations from the *Compendium of Social Doctrine* compiled by the Pontifical Council for Justice and Peace (7 references), citations from the proceedings of various Bishops' conferences around the world (12 references), and references from Apostolic Letters and various other Catholic documents. Beyond the Roman Catholic Church, LS cites Ecumenical Patriarch Bartholomew I (LS 7–9), the spiritual leader of the Greek Orthodox Church. There is one citation from the 16th century (C. E.) Muslim mystic, ʿAlī al-Khawāṣṣ (LS 233, note 159) – this is an unprecedented step in the history of papal encyclicals and speaks to the interfaith fraternity that Pope Francis calls for. Furthermore, LS acknowledges scientific theories about the environment and the part being played by scientists in seeking solutions to human made problems (LS 34).

[60] Séverine Deneulin, *Human Development and the Catholic Social Tradition: Towards an Integral Ecology* (London: Routledge, 2021), pp. 4–5.

[61] I have here paraphrased Dr Deneulin's summary (*Catholic Social Tradition*, p. 5), and have added *Mater et Magistra* to the list. My thanks to Dr Deneulin for drawing my attention to how, with Pope Francis' church reforms and the Amazon Synod, the Catholic Church is moving away from being a 'mother and teacher' to being a 'sister and listener', accompanying vulnerable communities such as indigenous peoples in the Amazon.

[62] Deneulin, *Catholic Social Tradition*, p. 5. Regarding the contexts and theologies of the Popes, and for how the *Populorum Progressio* informed *Solicitudo Rei Socialis* then *Caritas in Veritate* and then LS, see also, Grégoire Catta, SJ, *Catholic Social Teaching as Theology* (Paulist Press International U. S., 2019). https://www.paulistpress.com/Products/5356-5/catholic-social-teaching-as-theology.aspx.

[63] Deneulin, *Catholic Social Tradition*, p. 5.

[64] Séverine Deneulin & Augusto Zampini-Davies, 'Engaging Development and Religion: Methodological Groundings', *World Development* 99 (2017), p. 113.

[65] Deneulin & Zampini-Davies, 'Methodological Groundings', p. 113.

[66] Deneulin & Zampini-Davies, 'Methodological Groundings', p. 113.

[67] Deneulin & Zampini-Davies, 'Methodological Groundings', pp. 113–114.

[68] These are discussed in detail in Parts 2b.iii–vi, and at various relevant points in Part 3, with plentiful Qur'anic references.

[69] 'The metaphysical principle of interrelatedness and inter-dependence among creatures requires that we treat every creature with respect', Joshtrom Isaac Kureethadam, *The Ten Green Commandments of Laudato Si'* (Collegeville, Minnesota: Liturgical Press, 2019), p. 114.

[70] Muslim faith-based perspectives on and critiques of these topics are given in Part 2a.ii.

[71] Eugene Odum (1971) in Kent A. Peacock, 'Symbiosis in Ecology and Evolution', *Philosophy of Ecology*, *Handbook of Philosophy and Science, 11,* edited by Kevin de Laplante, Bryson Brown & Kent A. Peacock, (Elsevier B. V., 2011), p. 245.

[72] These and the following Qur'anic principles and perspectives are expounded in Part 2b.

[73] A *ḥadīth qudsī* is one of a group of utterances on the tongue of the Prophet that are believed to be divine sayings but are not part of the Qur'an; see William A. Graham, 'Ḥadīth qudsī', in *Encyclopaedia of Islam*, 3rd ed., edited by Kate Fleet, Gudrun Krämer, Denis Matringe, John Nawas, and Everett Rowson (Brill, 2017). Consulted online on 03 November 2022: http://dx.doi.org/10.1163/1573-3912_ei3_COM_30166. For more details on this divine saying (*ḥadīth qudsī*) see Part 2b.iv and endnote 210.

[74] See Part 3.3.

[75] Kureethadam, *Ten Green Commandments of Laudato Si'*. A copy can be downloaded free at: https://lsri.campion.ox.ac.uk/open-access-laudato-si-integral-ecology-collection.

[76] Environmental injustices and climate justice are discussed in Part 2a.ii.

Part 2

Present Crisis, Past Roots, Eternal Principles

Part 2: Present Crisis, Past Roots, Eternal Principles

2a: Brief background: balances, imbalances and faith-based Muslim voices

i) Natural balances in the universe, our solar system, and on planet earth

Osman Bakar points to five interlinked Islamic 'revealed ecological and environmental ideas'. These ideas are as follows: that the destiny of the earth is linked to the rest of the cosmos and to humankind; that the earth is a unique life-supporting planet; that, in the natural state, there is a harmonious relationship between organisms and their environments; that there is an ecological balance and equilibrium set in place by God; and that 'the divine economy in nature abhors waste'.[1] To start with the concept of cosmic balances and equilibrium, the Qur'an states that God created the universe with careful measure, 'Verily, everything We created is in measure' (Q. 54:49), and in equilibrium or balance: 'The sun and the moon are in perfect measure. The stars and the trees bow. (God) raised the heavens and established the equilibrium/balance (*mīzān*); that you do not overstep the equilibrium/balance (*mīzān*) and you set the weight [of things] justly and do not diminish/spoil the balance (*mīzān*)' (Q. 55:5–9). 'We (God) spread the earth and cast in it mountains and made every thing grow in it, in balance (*mawzūn*)' (Q. 15:19).[2] The pertinent Arabic words here are *mīzān* which has the meanings of 'balance', 'equilibrium', 'justice', and *mawzūn*, which denotes the state of being 'balanced'. Mustansir Mir notes that the word *mīzān* is used to signify four concepts in the Qur'an, namely: 1) the principle of balance and symmetry in the structure of the universe; 2) the criterion for discerning between truth and falsehood, right and wrong; 3) the spiritual scales that will be used hereafter to weigh up humanity's moral deeds; and 4) the giving of a full measure.[3] In a wide sweep, Q. 55:5–9 encompasses, within its reference to balance, swathes of creation, from the stars to the human marketplace, thus denoting natural balances and human societal and economic balances. Verses 38–40 in chapter 36 of the Qur'an (Q. 36:38–40) speak of the courses of the sun and the moon, each of which swims in its own orbit, and of the course of the night and the day [caused, as science discovered, by the spinning of the planet on its axis].[4] Science is proving just how exquisite the physical balance of the universe is.[5] Looking at our immediate spatial environment within our solar system, the earth is held in the 'Goldilocks zone' (not too far and not too near the sun) by the gravitational pulls of the sun and the moon, with the moon itself being held in place by the gravitational force of the earth and the sun. The gravitational pull of Jupiter draws numerous large comets and asteroids into its orbit, which might otherwise head in the direction of earth, with dire consequences if collision occurred. All these factors are in a natural balance that places earth in the perfect position in our solar system. Looking at the earth itself, the magnetic fields that surround our world deflect the harmful impact of solar winds. The earth's layered atmosphere provides a crucial protective layer that does

not crush the earth because it is balanced by the earth's energetic push outwards.[6] Also, thanks to the atmosphere and oceans, the heating of the earth by the sun is balanced out through evaporation of water, convection, rainfall, winds and ocean circulation.[7] Our solar winds also produce the heliosphere – a protective 'bubble' – that shields our whole solar system from cosmic rays. The outward pressure of the solar winds and the incoming pressure of the interstellar winds meet and check each other at a boundary, named the heliopause, where the pressure of the incoming and outward-bound winds is in balance.[8] For a believer, scientific facts such as these confirm the Qur'anic references to nature as revelatory 'signs of God' (*āyāt Allāh*).[9] The laws of physics, like those of mathematics and chemistry, and the intricate workings evident in biology and geology, are among the most compelling traces of divine power and intelligent design. The Qur'an frequently characterises God as the 'Lord and Ruler of the Universe', and the one who 'gives order and proportion to each creature and ordains laws for the whole of creation'.[10] Islamic theology thus founds its cosmological argument for God's existence and singularity on the way in which 'the Qur'an employs the perfect order of the universe as the proof not only of God's existence but also of His unity.'[11]

> 'God is the one who raised the heavens without any pillar which you see; then He settled upon the Throne and He subjected the sun and the moon – each runs [in its orbit] for a designated period of time; He directs the [whole] matter and He details precisely the signs, that you might believe in the meeting with your Lord. And He is the one who extended the earth and made therein mountains and rivers; and of every fruit He made therein are pairs; He veils the night with the day;[12] indeed in that are signs for people who think.' (Q. 13:2–3).

After billions of years, the balance of elements for life to exist and thrive on this planet in this solar system was just right, and life flourished. Fast-forwarding very rapidly, practically at the speed of light, eco-systems developed on earth over millions of years. In Islamic terms, 'God sustained the earth for millions of years since its birth as a full-fledged planet to enable it to support numerous forms of life'.[13] These eco-systems thrived in a way that manifests an intricate balance resulting from interactions between diverse animals and botanical life. As ecologist David Tilman states, 'diversity increased on earth because, on average, new species have tended to coexist with existing species. Coexistence requires interspecific trade-offs'.[14] However, humans in particular have had an ever-increasing systematic impact on their environment. With their developed physical and mental abilities, and their expanding social formations, they spread throughout the world. The earth largely coped with this human impact until the advent of the Anthropocene age, dated by several scientists to 1950.[15] Since then, humankind's collective activity has had a significant and profoundly altering impact on the planet and its environment. Before the Anthropocene, human civilisations and their detritus were biodegradable – as the leading British Muslim voice on environmental and ecological matters, Fazlun

Khalid, eloquently puts it – and the environmental effects of those civilisations were therefore containable by nature.[16] For most of human history, then, the planet absorbed the effects of human activity without them impacting the natural balances of life on earth. However, due to the excessive and indiscriminate use of industry and technology – developed over the past three hundred years[17] – human activities have finally tipped the balance and disrupted the equilibrium,[18] with climatic and ecological catastrophes now playing out as predicted by scientists and ecologists. From a faith perspective, the balance God prepared, over billions of years, for the earth and its diverse life-forms, is being destroyed by humanity in a matter of a few centuries.

ii) Imbalances created by human action; and Muslim responses

LS 25 identifies climate change as a global problem and one of the principal challenges facing humanity today, and goes on to note the serious implications that it has for the environment, as well as for social, economic, and political aspects of human life. The world is indeed seeing increasingly graphic evidence of the devastating effects of climate change resulting from human action, particularly global warming caused by human-generated emissions of carbon and other greenhouse gases. No one can now ignore the cascading effects, nor the voices that have for so long been warning of the very things that are unfolding in front of our eyes: landslides, devastating floods and wild fires, soaring global temperatures, and droughts feature all too frequently in news from across the world.[19] Polar ice is melting,[20] and rising sea-levels[21] are already causing deaths and population displacements in countries such as Bangladesh and Indonesia.[22] In August 2022, Pakistan was devastated by floods that saw one third of the country submerged under water due to extreme monsoon weather.[23] The United Nations Environment Programme' *Faith for Earth* newsletter notes that Summer 2022 leaves behind an impact of more droughts for Africa, drying rivers in Europe's ecosystems, and despair in Southeast Asia due to devastating floods – with scientists predicting that calamities of this nature are set to become more frequent.[24] Climate change is making itself seen, felt and heard, loud and very clearly. The situation is so bad that some scientists have issued warnings that there may be only ten years left in which to prevent the planet from irreparable damage.[25]

In Q. 30:41, the Qur'an states:

> Corruption has appeared on the land and in the sea because of what the hands of people have acquired [i.e., what people have done];[26] [this has been allowed by God] so that He makes them taste some of what they have done, that they might return [to doing what is good]. (Q. 30:41).

The scriptural exhortation that people modify their behaviours that corrupt the balance on earth is more urgent than ever before. Human activity has unsettled the earth's natural systems in some five hundred years.[27] As a result of that, life on earth is jeopardised, both on the land and in the

waters of this extraordinary planet. Echoing the wisdom of Q. 30:41, LS 80 states: 'Creating a world in need of development, God in some way sought to limit Himself in such a way that many of the things we think of as evils, dangers or sources of suffering are in reality part of the pains of childbirth which He uses to draw us into the act of cooperation with the Creator'. In other words, we need to pay heed to the unfolding global and planetary suffering and turn to better ways of living, which in religious terms may be described as cooperating with God. As part of the process of addressing the critical challenges humanity has engendered and of modifying human conduct for the better, it is necessary to understand what has brought us to this stage in the first place.

Philosophical roots of the crisis

The impetus behind humanity's damaging behaviour is multi-faceted. Tilman describes the 'massive explosion' of human environmental impacts as the 'unplanned, inadvertent result of our inventiveness'.[28] However, along with humankind's natural, God-endowed propensity to 'invent',[29] these human environmental impacts also have roots in the philosophical thought of the past few centuries. Pope Francis addresses the 'human roots of the ecological crisis' in LS Chapter 3 and highlights the issue of a global technocratic paradigm (LS 106–114) and the negative impacts of modern anthropocentrism (LS 115–136). Noting the paradox of modern anthropocentrism, which prizes technical thought over reality, LS 115 cites Romano Guardini's view that 'the technological mind sees nature as an insensate order, as a cold body of facts, as a mere "given", as an object of utility, as raw material to be hammered into useful shape'.[30] LS 118 points out that there is 'a constant schizophrenia, wherein a technocracy which sees no intrinsic value in lesser beings coexists with the other extreme, which sees no special value in human beings'. As discussed below, Muslim writers[31] like Seyyed Hossein Nasr, Osman Bakar, Fazlun Khalid, and Ibrahim Özdemir, also locate the philosophical roots of the ecological crisis in changes that occurred, firstly, in humankind's perception of humanity's own purpose and role on earth and, secondly, in humanity's attitude towards nature and the environment.

Some leading faith-based Muslim writers

One of the earliest Muslim writers in English to address the issue of human impact on the environment from a faith-based perspective is Seyyed Hossein Nasr, who published *Man and Nature: The Spiritual Crisis in Modern Man* in 1968.[32] This work was translated into Italian in 1976.[33] In 1996 he wrote *Religion and the Order of Nature*,[34] in which he presents the sacred view of nature in diverse traditional religions (chapter 2), and then describes how nature was desacralised through changes in philosophy, the scientific revolution, and the development of Renaissance humanism, which produced an altered secular and 'Eurocentric' perspective of humankind (chapters 3, 4 and 5). He then demonstrates how the environmental crisis has led to a 'rediscovery of nature' (chapter 6) and the

role of religion in resacralising nature (chapter 8). Nasr thus sees the negative human impacts on the environment as rooted in changes of attitude towards nature perpetuated by Renaissance perceptions of humankind (philosophical alterations in the perceptions of and attitudes towards humankind and nature), plus technological and industrial developments resulting from scientific inventions.

Referring to both LS and Nasr in *Environmental Wisdom for Planet Earth: The Islamic Heritage*,[35] Osman Bakar notes that for both Pope Francis and Nasr, the 'deepest roots of the modern ecological crisis […] pertain to man's spiritual relationship with God and Nature'.[36] Bakar too believes that the roots of the human-caused devastation of the natural environment lie 'in the modern abandonment of a spiritual vision of nature in favour of a desacralized, secularised view of it'.[37] Bakar believes that these societal changes can, in part, be traced back to the advent of the Copernican heliocentric theory. Rather than it being a scientific revolution, which Bakar regards as something of a misnomer, Bakar subscribes to the view that it was essentially religious-philosophical,[38] and acted as a catalyst for the transformation of Western perspectives towards humankind, planet earth and the rest of the known universe.[39] With the new perspective that neither planet earth nor humanity were unique, the value of the earth was degraded [or downgraded] and the traditional, religious status of humankind, as made in the image of God, was also diminished, as science and philosophy replaced religious beliefs.[40] It is ironic that the more people seek to prove that neither humankind nor planet earth are unique, the more evidence is gained which seems to affirm that very uniqueness.[41] Nonetheless, with a loss of religious responsibility towards the planet, and beguiled by technological advances, people have treated the planet in a utilitarian way, seeking to make life on earth ever more comfortable and convenient for humans.[42] It is something of a paradox how 'the belief that with the aid of science and technology man can eventually create "paradise on earth", has been undermined by 20th century scientific and technological progress'.[43] Not only has this irresponsible use of the planet and its resources failed to produce paradise on earth, it has in fact had the opposite effect, and has brought destruction on the earth.

Ibrahim Özdemir,[44] too, has noted that from the second half of the 18th century, through to the first half of the 19th century, science-inclined philosophers and positivists have mainly held the views that science and technology would answer all human needs and resolve all problems without creating any further issues, and that religion and metaphysics were meaningless and irrelevant to modern man.[45] Özdemir links this attitude to a growing human alienation from nature and the development of the view that nature has no sacred dimension.[46] Post-17th century ethical theories 'considered the natural world as being outside the human sphere and as having only instrumental or utilitarian value'.[47] Accepting that while this modern view of nature may have emerged in the West, its influence is felt everywhere, including in Muslim societies, Özdemir points out that

environmentalists now posit a clear and direct link between environmental problems and modern views on nature.[48] Therefore, Özdemir suggests, 'any alternative theories of environmental ethics can be expected to challenge the basic propositions of the dominant modern understanding of nature'.[49] Özdemir proceeds to do this on the basis of the Qur'anic perspective that nature and humanity are most definitely not meaningless or purposeless. He points to the frequent Qur'anic assertions of natural phenomena as indications of the unlimited power and majesty of God, and that God's creative action is not frivolously undertaken:[50] 'God is the very meaning of reality,'[51] 'all nature is *muslim*',[52] and through contemplation of nature and the unity of creation the Muslim comes to 'look upon all creation as his brethren before God.'[53] For a Muslim, 'the world is alive, meaningful, purposeful and… *muslim* like themselves'.[54]

Through his writings and work, Fazlun Khalid – one of the foremost British Muslim voices on Islamic eco-environmentalism – has for decades been actively engaged in raising awareness of the environmental crisis and its socio-ecological and philosophical roots, whilst also promoting Muslim faith-based environmental action.[55] Like the other faith-based Muslim voices, Khalid notes how 'belief in the presence of the Divine and a sense of the sacred has had the effect of defining boundaries which were deemed uncrossable'.[56] Khalid is very much of the opinion that nature consists of sacred signs, as indicated by the title of his seminal work, *Signs on the Earth: Islam, Modernity and the Climate Crisis*, and offers an Islamic perspective that views nature and humans as both part of the interwoven fabric of the natural order.[57] Khalid also roots the current global crisis in the changing philosophical and ethical worldview that emerged in preceding centuries. Tracing the roots of the eco-environmental crisis through a detailed analysis of the march of progress and the development and growth of the different social, economic and political stages of modern history, Khalid has provided an in-depth critique of the modern day profit-driven, hyper-industrialised and hyper-technological consumerist culture (Chapters 1–4). In his analysis, Khalid cites LS 107,[58] which challenges the unquestioning adoption of scientific and technological paradigms, since these very paradigms are at the root of many of the current problems in the world. It is further noted in LS 107, that these paradigms also shape 'social possibilities dictated by the interests of certain powerful groups', and that 'decisions [that follow the technological paradigm] which may seem purely instrumental, are in reality decisions about the kind of society we want to build'.

His compelling critique of the philosophy of capitalism is a particularly striking feature of Khalid's analysis.[59] He dismantles capitalist theory and economic practices, revealing capitalism for what it truly is, a 'debtocracy'.[60] Khalid notes that LS 189[61] articulates a similar critique (albeit in less blunt terms) of current financial practices and the need to review and reform the entire system 'in order to develop a new economy, more attentive to ethical principles, and new ways of regulating

speculative financial practices and virtual wealth.' I would also highlight LS 190, which points to the 'need to reject a magical conception of the market, which would suggest that problems can be solved simply by an increase in the profits of companies or individuals' and questions whether it is realistic 'to hope that those who are obsessed with maximizing profits will stop to reflect on the environmental damage which they will leave behind for future generations?' Khalid is of the view that a profit-driven economic mindset and system have had such strong and long-term negative consequences that the start of the Anthropocene era should actually be dated to 1545, when Henry VIII legitimised usury/interest.[62] Concluding his comments on capitalism as a debtocracy, Khalid recommends that, among other things, faith communities 'can do much to infuse a sense of balance and hold in check the extreme and adverse manifestations of modernity within their own spheres of influence'.[63]

On progress, development and growth, Khalid offers a summative equation: 'Progress + Development = Pollution + Destruction'.[64] In the face of our global crisis, Khalid proposes that 'progress', 'development' and 'growth' need to be redefined if planet earth and humankind are to be saved.[65] As part of a response to his own proposal, Khalid turns to religion and the role of multi-faith partnerships in addressing the critical issues that progress, development and growth have led to, and, in particular, the potential Muslim contributions to such a response. In Chapter Five of *Signs on the Earth*, Khalid elaborates on the theoretical relationship between Islam and the natural world and highlights the faith's wholistic approach. He then expounds on the practical expressions of Islamic socio-ecological and economic concepts as a way for Muslims to tackle the global crisis. In particular, he identifies overarching guidelines for Muslims, presented in a three-pronged format,[66] which are paraphrased here: 1) to acknowledge human desacralisation of the earth and abuse of it,[67] and to rediscover an attitude to earth that respects it as sacred;[68] 2) to articulate an ethical understanding of our relationship with the natural world and create a knowledge-base which helps to tackle the immediate issues and provides motivation for long-term change in how humans conduct themselves;[69] 3) to reassess political economy and explore Islamic approaches that could help produce a format for wellbeing that is not detrimental to human existence. To help with this, Khalid looks to the Islamic principial and practical legacy,[70] which, generally speaking, has fallen into obscurity in recent centuries.[71] The legacy includes: Knowledge of creation (and the principles of unity, balance, responsibility, love, humility, trusteeship and justice); and environmental jurisprudence (including traditional Islamic human-integrated natural resource management systems, sanctuaries, charitable endowments and legitimisation of action and judgements based on local custom and practice). Khalid's well-developed analysis provides much food for thought and presents practical guidance for Muslim communities and states that seek an integrated and sustainable way forward.[72]

In his final chapter, 'Surviving the Anthropocene', in addition to presenting the arguments and warnings of scientists, Khalid highlights the importance of faith communities working together and notes the ten common environmental principles contained in the Ohito Declaration for Religion, Land and Conservation.[73] He also flags up two ideas that are gaining momentum among some faith groups, namely, 1) 'transition towns' – which aim to relocalise and decarbonise the economy, maximising local organic food production and consumption, and reducing energy consumption, while moving to renewable sources; and 2) the concept of the 'circular economy' – which promotes maximum use of resources (rather than frequent upgrades), and the recovering of products and materials at the end of their lifecycle (rather than the 'make, use and dispose' idea of the linear economy).[74] He ends his book with guidelines for Muslims that affirm the traditional religious view of humans and nature and provide advice regarding dealings among humans (not least economic) and on relations between humans and the natural world.[75]

In sum, the Muslim authors discussed above situate the philosophical roots of the Anthropocene in two main paradigm shifts that took place in recent centuries. Broadly speaking, the first shift was from acknowledging a God and a life after death to a denial of God's existence, thereby excluding religion, spirituality, and the divine from human life. Enlightenment philosophers viewed revelation as a barrier to the development of thought and civilisation.[76] Consequently, all life was regarded as accidental, and the significance of human life was, in effect, limited to understanding this world and making the best of it. This even involved excluding meaning altogether from a universe now deemed absurd.[77] With sanctity philosophically excised from human life, the change from viewing nature as sacred to regarding it as having no intrinsic value and serving only to furnish human needs was unsurprising; nature was regarded as having only instrumental value.[78] With these two philosophical reconfigurations, humankind's propensity to invent lost its moderating regulators and human use of nature accelerated into pure plunder.[79] As LS 82 notes, when nature is perceived 'solely as a source for profit and gain, this has serious consequences for society […] "might is right" has engendered immense inequality, injustice and acts of violence against the majority of humanity, since resources end up in the hands of the first comer or the most powerful: the winner takes all'.

Even among believers in God and human accountability, nature was not necessarily considered sacred; nor were other human races held in any respect. The pursuit of prosperity and dominance of the earth (and exploitation of its resources) exhibited by powerful European nations during the colonial era showed how men who purportedly believed in God had no qualms in brutally attacking Africans, Indians, Aboriginal Australians and First Nations. They helped themselves to the lands inhabited for centuries by these indigenous peoples; they abused the indigenous nations, showed contempt for their cultures, and exploited the natural resources of those lands. These actions

were gross violations of what are now recognised as human rights.[80] European colonials were not the first, nor the last, to display the human propensity to plunder, ravage, brutalise, exploit and murder.[81] All human imperial ventures throughout history – as well as the actions of certain modern leading powers – share these features to varying degrees of horror. The colonial era plunder, however, was defined by modern scientific and technological advances, and fed directly into the current global predicament. The modern world is built on these gross historic exploitations of people, land, resources, and wildlife.

The philosophical roots and historical events discussed above led to injustices against humans and nature, injustices whose effects have played no small part in catapulting the whole world into its current global crisis. While recent global agreements to cut carbon emissions to reduce global warming and to transition to more sustainable ways of living are to be welcomed, it remains to be seen how sincere the efforts are and if they will prove to be sufficient.[82]

Environmental injustices; discrimination and exploitation

Historically, the pursuit of economic growth has been deeply stained with tyranny and oppression. Today it continues to reek of excess, injustice and imbalance.[83] In addition to producing lethal amounts of greenhouse gases (and all concomitant effects thereof), the pursuit of ever-increasing economic growth and progress has seen rapacious use of the earth's natural resources (to the extent of severe depletion), criminal disregard for the natural habitats of wildlife, and exploitation of people. In highlighting the dire situation of the Amazon, Pope Francis laments that, 'The businesses, national or international, which harm the Amazon and fail to respect the right of the original peoples to the land and its boundaries, and to self-determination and prior consent, should be called for what they are: injustice and crime.'[84] The outrageous and calculated counter-climate-change propaganda of big industries, such as the fossil fuel industries – which resulted in a decade long delay in climate action by the United States of America[85] – is simply a continuation of these severely unbalanced attitudes. Even among those in positions of power and authority who recognise the need to reduce carbon emissions, still too many, particularly those with high-profit businesses and vested interests, are trying only to reduce the negative effects that current economic practices generate, rather than actually transitioning to an altogether less exploitative, more moderate and ecologically balanced way of living. As LS 26 states, 'Many of those who possess more resources and economic or political power seem mostly to be concerned with masking the problems or concealing their symptoms, simply making efforts to reduce some of the negative impacts of climate change.'

For instance, rather than making substantive changes to reduce carbon emissions, some big industries in the West have opted to plant 'forests' for the purpose of carbon sequestering. The idea

is that these 'carbon forests' will absorb an amount of carbon equivalent to the carbon emissions that the industries produce. In this way the industry itself has to do nothing other than plant trees. Prima facie this seems like a workable idea; not only is carbon-emission reduced but it gives the impression that rewilding is taking place. The reality, however, is quite different, and not without severe negative impacts.[86] For example, in some cases, such 'carbon forests' are being planted on lands used by indigenous peoples, 'in our backyards, without asking our permission', as one First Nations spokesperson said.[87] In other cases, the homes of long-standing indigenous farmers are being burnt to prevent them from living on and working that very land, because it is wanted by a particular big company for a carbon-sink plantation.[88] This type of disregard for indigenous people is in stark contrast to Qur'anic guidance found in verses like Q. 31:18 which explicitly advises, 'Nor turn your cheek contemptuously to people nor walk on the earth insolently' and Q. 17:37 which also advises humans not to walk on the earth disrespectfully. The Qur'an strongly implies a divine intention that there be mutual acknowledgement between different peoples in Q. 49:13, which states: 'O humankind, We have created you from a male and a female and made you (diverse) peoples and tribes so that you know each other mutually'.[89] The Arabic verb used in this verse for 'knowing each other mutually' (*taʿārafa,* conjugated as *taʿārafū*) signifies 'mutual acquaintance', 'getting to know one another' and 'recognising one another'.[90] By extension, Q. 49:13 may be understood as implying a mutual acknowledgement of each other's rights, and mutual understanding and support. As Bakar comments on this verse:

> The main purpose of ethnic diversity – the division of humankind into nations and tribes as asserted by the Qur'an (49:13) – is to enable man to know one another. […] As supported by many of its verses, the Qur'an understands this mutual acquaintance to be multi-layered and to be productive of other things viewed as indispensable to the development and advancement of cultural symbiosis in human societies. […] Mutual acquaintance is to lead to mutual understanding (*tafāhum*), cooperation and mutual help (*taʿāwun*), and mutual tolerance (*tasāmuḥ*).[91]

Moreover, in addition to the aforementioned contempt shown for indigenous peoples, some of these 'carbon forests' are nothing but monotype plantations (where only a single species of tree is planted), which do not sustain biodiversity;[92] the soil of these plantations becomes barren within a few short years.[93] All this is being done so that big industries can sequester or recapture their carbon emissions, rather than reduce them, with the result that they do not have to change the way they function despite the environmentally harmful consequences of their actions. LS 190 notes that for the profit-oriented economy 'biodiversity is considered at most a deposit of economic resources available for exploitation, with no serious thought for the real value of things, their significance for persons and cultures, or the concerns and needs of the poor'. Such financialisation of nature is part of a degrading

market mentality whereby, as one commentator said, everything has a price but no value.[94] Adding insult to injury, carbon credits gained through carbon sequestering via 'forests' can be purchased and sold by industries and companies. This, as LS 171 points out, 'can lead to a new form of speculation which would not help reduce the emission of polluting gases worldwide […] it may simply become a ploy which permits maintaining the excessive consumption of some countries and sectors.'

Too many of those in positions of power – particularly those who would lose profits if the status quo changed – are either resistant to the idea of change, or want to make minimum change for maximum profit, assessing the change-making itself in terms of potential financial gains, and disregarding the damaging consequences for indigenous communities and local environments. Even the drive to 'go green' in the global north is itself neither harmless nor free from the excessive drive for material acquisition. Solar panels, electric cars and wind turbines all use rare metals that are found in large quantities in only a handful of countries (China, for instance, contains 73% of all rare metals[95] and Chile produces the most lithium).[96] The mining for and extraction of these rare metals is contaminating water resources, putting further strain on water availability, necessitating population shift, causing cancer in local populations, and, needless to say, ravaging the earth.[97]

Fortunately, increasing numbers of people are organising globally to seek to transition to sustainable ways of living at all levels of society, from grassroots mobilisation at the community level, to businesses changing their shareholder model, to politicians making decisions at the macro level. Scientists and ecologists like Tilman look to human intellectual and scientific inventiveness to discover the solutions to the environmental crisis – the same inventiveness which Tilman described as having inadvertently caused the crisis.[98] Undoubtedly, science is playing, and will play, a significant part in the attempts to resolve the issues. It does, however, seem to be a contradiction to expect humankind to both solve the long-term crises and hope to continue to live in the same excess-inclined culture that is 'resting on industrial and financial systems in singular pursuit of profit… [with the] very human ecology collapsing.'[99] Profound and wide-ranging modifications, and moderation, are required, starting with human attitudes to self, to other species, and to the planet and its natural resources.

Speaking of environmental injustices in the United States, Mohammed Saidul Islam notes that such injustices are expressions of 'environmental racism' and that they are 'a new manifestation of historic racial oppression'.[100] Leading British Muslim environmental lawyer and climate activist, Farhana Yamin, stated that 'emissions are just a symptom, an aspect, of class and racial discrimination,' and advocates putting climate justice at the centre of action.[101] In blunt terms she points out that climate models that look into the future only, as though the injustices are based in the future, are missing the bigger part of the story because the injustices are rooted in the past.[102] She

situates the global crises of today as a collective legacy stemming from the past four hundred years of malpractice, of exploitation of nature and people, of colonialism and imperialism, 'and of ignoring the rights of indigenous peoples who have a healthier relationship with nature and did not believe in land ownership.'[103]

Before turning to the topic of climate justice, a brief point on land ownership. Theologically speaking the concept of human ownership of land is perhaps one of the most audacious claims people can make. Humankind has contributed absolutely nothing towards the making of the earth. The Qur'an makes it clear, in numerous verses, that ownership of the earth belongs to God, and humankind are accountable to God for our actions on earth.[104] For instance, verses like Q. 3:189 and 5:40 state categorically, 'to God belongs the ownership of the heavens and the earth' (*wa li'llāhi mulku'l-samāwāti wa'l-arḍ*); Q. 5:17 and 18 reiterate this phrase adding the clause 'and all that is between them' also belongs to God; and 4:97 uses the possessive grammatical construct when referring to 'God's earth' (*arḍu'llāhi*). From a Qur'anic point of view, therefore, 'land ownership' belongs to God, Creator and Lord of the Worlds, as does everything in the heavens and the earth. Özdemir affirms this categorically: 'God, according to the Qur'an, is the real Creator, Owner, and Sustainer of all reality';[105] while Bakar rightly observes, 'Humankind as a species tend to easily forget who actually owns and maintains their planetary home'.[106] In addition, Q. 55:10 states that God set down the earth for (all its) beings and it therefore follows that not just humankind but all other living creatures on earth are entitled to use its resources. Moreover, humans are expected to use the earth's resources in a balanced and reasonable way.[107]

Jakub Koláček observes that the Qur'anic notion of human deputyship (*khilāfah*)[108] generally denotes humanity's responsibility toward God, and that it stands in contrast to ideas of human ownership or sovereignty, and is at odds with the concept of unrestrained human activity.[109] He notes that the abandonment of this view of humankind as answerable trustees/stewards of the earth is viewed by Muslim scholars as the root cause of environmental problems, and a danger, not only to nature, but also to the spiritual integrity of the human being.[110] To the notion of human stewardship on earth, Muslims could add the term 'tenant', so that humanity are viewed as tenant-stewards of God on earth. Souleymane Bachir Diagne calls for just such an understanding of the Qur'anic term *khalifah*, which he deliberately renders as 'lieu-tenant' or 'place-holder' in his article, 'We, the servants and tenants of Earth'.[111] Diagne points out that this term, *khalīfah*, 'defines for humans their responsibility to watch over their environment, namely the Earth'.[112] Referring to the ecological ideas in the famous philosophical novel, *Ḥayy ibn Yaqẓān,* by the medieval Andalusian scholar Abū Bakr Ibn Tufayl (d. 1185), Diagne notes how the protagonist of the novel – the solitary human called Ḥayy living on an isolated island since birth – when he attains full awareness, 'understands his responsibility to

be the guardian of life in all its forms. He will take from nature only what is necessary for his sustenance, ensuring that the capacity for renewal of life is fully preserved, and that nature reconstitutes what it gives him'.[113] Diagne thus links 'Ibn Tufayl's insistence on Ḥayy's ecological consiousness' directly to the Qur'anic concept of the human being as the divinely placed '*khalīfah* on earth'.[114] He contrasts this with the unpalatable conception of humanity as 'nature's master and owner'.[115]

A change of terminology from human 'ownership' of land to human 'tenancy', linked to ideas of human stewardship of the earth, could, potentially, go a long way towards altering humankind's attitudes to the earth and its resources. In practical terms, having the right to build on or use the resources of a particular piece of land would not necessarily be so different from 'owning' that land. However, the change of attitude that the proposed change in terminology might engender could potentially be consequential for how, and to what extent, humans use the earth's resources. In other words, as tenants our rights are not unlimited, nor should our use of resources be unchecked; and as stewards/deputies our use of resources must be responsible and give thought to the impact on the environment and other living beings. Admittedly, this in itself requires belief in God and/or in human accountability and stewardship. Futhermore, the whole spectrum of questions on governance, and who has greater right to resources, and who on earth is to judge accountability, would remain – but this does not detract from the benefits that the suggested modified terminology and attitude might produce.

Climate justice

> 'Climate justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly. Climate Justice amplifies the voices of those people who have done least to cause climate change, but who are most severely affected. […] Who will carry the costs of climate change? […] climate justice brings into focus not just the enormous threats we face today, but the threats we will face for generations to come.' (Mary Robinson)[116]

In a 2019 interview, Mary Robinson, former President of Ireland and Chair of the Elders, said that climate justice 'shifts the discourse from greenhouse gases and melting ice-caps into a civil rights movement with the people and communities most vulnerable to climate impacts at its heart'.[117] She also highlighted the 'intergenerational injustice of climate change', and emphasised that 'young people be seen as "means of implementation" and "creators of opportunities" not just as beneficiaries'.[118] Her comments point to two key elements of climate justice, namely, 1) The discrepancies of cause and impact between richer and poorer countries/communities, and 2) The discrepancies in cause and impact between generations. Referring to both, UN Secretary General,

Antonio Guterres, also stated that, 'climate change is happening now and to all… and, as is always the case, the poor and vulnerable are the first to suffer and the worst hit'.[119] He further observed, 'my generation has failed to respond properly to the dramatic challenge of climate change. This is deeply felt by young people. No wonder they are angry.'[120]

Looking at intergenerational relations and responsibility from the point of view of scriptural ethics, Q. 17:23–24 is of particular interest. I will unpack its primary meaning before showing the pertinent principle that may be derived from it for the purpose of climate justice. Prima facie it addresses issues of old age and care for the elderly, and aims to achieve a balanced, virtuous resolution for a familial situation that many humans will experience. It does this through counterbalancing the trials that come with old age, by advising people to treat their elderly parents with kindness, mercy, generosity and honour, and to neither reject them nor be impatient with them. The prayer which the Qur'an advocates in 17:24 – 'my Lord have mercy on them even as they nurtured me when I was little' – succinctly reminds us that these very parents, who might now be senile, repetitive, easily confused and prone to tantrums, are the very ones who looked after us when we were children – when we, too, knew little, were not so capable, and were repetitive and prone to tantrums. In a cyclical rhythm, the kindness of parents to children is balanced in time by the kindness of those children to their parents. It is noteworthy that it is the generation in a position of effective power that is asked to be humble and kind, patient and merciful, thoughtful and caring towards the vulnerable generation.[121] From this we may derive a principle of intergenerational care and responsibility with regard to taking care of the earth, its climate and resources now, by the generation alive and able to do so, for the sake of the generations still to come.

Through interpretive deduction, principles related to both intergenerational justice as well as international equity, may also be derived from another significant scriptural verse, Q. 7:172. This verse is situated in a supra-temporal, spiritual moment and tells of how God addressed all humanity, while they were/are still only the potential seed of the children of Adam (who in this verse is the archetype of all human beings). The verse is:

> When your Lord took from the children of Adam, took from their loins their progeny, and made them testify against themselves [asking them]: Am I not your Lord? They replied: 'Yes indeed! We testify [that You are our Lord].' Lest you say on the day of resurrection, 'Indeed we were unaware of this'. (Q. 7:172.)

Two pertinent points can be made from this verse for the discussion at hand. Firstly, the fact that all humanity is addressed at one and the same time implies succinctly that all humans that exist, have existed and will exist have this equality in the eyes of God, an equality established at a supra-temporal, spiritual moment. This provides the basis for deriving a principle that may be applied to

climate justice at the inter-generational level, namely, that the generations yet to come have an equal right to the gifts of God on earth as any other generation of humans and, therefore, no generation should despoil this right from future generations. As LS 139 states: 'Intergenerational solidarity is not optional, but rather a basic question of justice, since the world we have received also belongs to those who will follow us.'

Secondly, the testament which Q. 7:172 ascribes to all humanity, that God is the Lord of us all, along with the divine caveat, 'Lest you say on the day of resurrection…' underscores that all humankind is accountable to God – the God whom we know, deep within our beings, is our Lord; the God who is all that He is, including being the Merciful, the Just, the Equitable; the God who asks us to manifest mercy, justice and equity.[122] The entwined implications of this knowledge and accountability for climate justice are as follows. That the shouldering of the economic costs of *making changes to diminish the rate of climate change* must be equitable, with those who contributed most to the crisis contributing most to address the crisis.[123] That there should be *equitable reparations for loss and damage due to climate change*, paid by those who have contributed more to the climate crisis to those who are most affected, and who generally have done least towards causing the crisis. Lastly, Q. 7:172, as interpreted above, indicates that everyone has some responsibility, though not identical, towards ensuring the aforementioned intergenerational and international equity – because we are all accountable to God. This can be related to the 'common and differentiated responsibilities',[124] called for in LS 170, which also pointed out that that comparable international commitments from all countries to lower pollutant gas emissions 'penalizes those countries most in need of development' and is 'a further injustice perpetrated under the guise of protecting the environment.' Mary Robinson notes that humankind's common responsibility is built on the concepts of humanity's common heritage and concerns, and that the idea of differentiated responsibility addresses the material and economic inequalities found in different countries, their different historical contribution to global emissions, and their differing financial and technological capacities to tackle the problems.[125]

The above-mentioned scriptural principles that can be applied to climate justice are supported by other scriptural passages. For example, Q. 3:108 provides a clear statement that injustice and oppression are not part of the Divine intention: 'God does not desire injustice/oppression (*ẓulm*) for the worlds'[126] and Q. 59:7 cautions against wealth being distributed and circulated only among the rich.[127] The implied principle here is that wealth – be it money, land rights, property, medical treatments, any resources – are not to be used by and for the sake of only those who are rich. They are to be shared equitably by all sectors of society. By analogy, this principle is applicable to the precepts of climate justice discussed above.

Human ecologist, David Tilman calls for a balance of several considerations regarding the issues at hand:

> 'Halting fossil fuel use and protecting natural ecosystems are essential first steps to assure the long-term livability and sustainability of Earth. However, we can only successfully address these issues if the solutions are scientifically rigorous and if they also assure that human needs (or wants) for food, energy and other goods and services will still be met. Moreover, these needs must be met in ways that are equitable to the peoples of all nations, including those of the global south. Thus, to solve major environmental problems, we need to understand the interlinked needs and wants'.[128]

At the 77th General Assembly of the United Nations in September 2022, the Secretary General, Antonio Guterres, described the need to address loss and damage sustained by developing countries due to climate change caused by global warming as a fundamental question of climate justice, international solidarity and trust. 'Polluters must pay' he stated as he called for fossil fuel industries to be taxed and for those funds to be directed to countries suffering loss and damage due to the climate crisis and to people struggling with rising food and energy prices.[129] On 21 September 2022, at a ministerial meeting attendant to the United Nations General Assembly in New York, Denmark became the first UN country to pledge 100 million Danish crowns as payment for loss and damages. The Danish minister for development, Flemming Møller Mortensen reportedly remarked, 'It is grossly unfair that the world's poorest should suffer the most from the consequences of climate change to which they have contributed the least.'[130] In her opening speech at COP 27 (November 2022), the Prime Minister of Barbados, Mia Mottley, commented that 'the prosperity and high carbon emissions of the rich world had been achieved at the expense of the poor in times past', and that the poor of today are now 'the victims of a climate breakdown which they did not create' and having to pay the cost of it; Mottley called this 'double jeopardy … fundamentally unfair'.[131] She pointedly remarked, 'this world looks still too much like it did when it was part of an imperialistic empire'.[132]

As noted above, Yamin and Saidul Islam also situated climate injustices on the same trajectory as historic and imperialistic injustices. It is fair to say that the wealth of the western world as we know it was built on historic injustices, such as the atrocious trans-Atlantic slave trade and the gross exploitation of colonised peoples and of the lands and natural resources to which indigenous people should reasonably have retained the primary rights of use. Those historic injustices – the repercussions of which are still playing out to this day – saw gross violations of what are now understood and recognised as universal human rights and fundamental freedoms. The fact that next to nothing has been done to make reparations for them 'is itself a species of violence', to repurpose Mahatma Gandhi's phrase.[133] Reparations for historical injustices and atrocities is a major and very important topic in its own right. Here, I would just underscore that reparations for slavery and for

colonialism are among the greatest overdue "debts" of modern history. Moreover, contrary to common claims used to dismiss the notion, such reparations are not an impossible financial task, as Cynthia Hewitt and Prime Minister Mottley advocate. Hewitt explores how the transference of the Special Drawing Rights (SDRs) for the International Monetary Fund (IMF) 'from core responsible nations to African countries and people in diaspora could provide a uniquely flexible solution to restitution'.[134] Prime Minister Mottley holds that reforming the allocations of SDRs could provide solutions that are practical for the climate crisis and also historically just.[135] The long-standing quota system in place for allocating SDRs, as Michael Franczak and Olúfémi O Táíwò observe, 'is worse than a relic – it is a literal representation of how colonialism continues to lock poor countries out of global governance'.[136] Franczak and Táíwò too note, 'it is entirely possible for the IMF and international community to turn SDRs into an effective tool for climate reparations'.[137] The question is, will the rich countries heed the calls and recommendations for reform regarding SDRs? It is, as Prime Minister Mottley said, a matter of will and choice[138] – for the international community, and particularly the nations wielding executive power.

COP 27 saw Climate Finance take centre stage and some progress being attained on key issues.[139] For instance, the parties did agree to make funding arrangements to provide financial support to vulnerable countries to help them cope with the worst impacts of climate change; this includes a dedicated fund for loss and damages, which is being described as an 'historic step',[140] and the provision of technical assistance to developing countries via the Santiago Network (to be operational by COP 28).[141] The existing Adaptation Fund also received increased pledges and contributions to help the countries most vulnerable to climate impacts.[142] Nonetheless, the new financial commitments fell short of the expectations of a number of stakeholders; previous pledges of support have still not been fulfilled; and negotiations for new financial goals for 2025 did not make much progress.[143] Developing countries also raised concerns regarding how the provision of financial help through loans has actually increased the debts of recipient countries. [144]

Indebting vulnerable countries sounds, looks and feels like a continuation of bad old ways. The fairer option would be, as Mia Mottley advocates, to give grants not loans,[145] and to reform the allocation of SDRs.

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To conclude Part 2a, it has been demonstrated that human societies across the public and private sectors can no longer delay in making the necessary changes. These include reducing carbon emissions, ensuring climate justice, moving to sustainable ways of living, and modifying the excessively consumerist mode of living and the exploitative mentality that has led to the current global

predicament. Positive changes can also be made at both community and individual levels. LS 222 points to the Christian spiritual tradition that advocates a lifestyle, 'capable of deep enjoyment free of the obsession with consumption'. The same paragraph highlights 'an ancient lesson, found in different religious traditions… the conviction that "less is more"'. This resonates with the Sufi teaching of 'contentment with little' (*al-riḍā' bi'l-qalīl*). Farhana Yamin draws attention to how the ordinary person can contribute to the shift to a 'new normal'. She notes that everyone is involved in the consumption of food, fashion and fuel – industries which generate enormous amounts of emissions and waste; and that everyone pays taxes and uses banks. She advocates that people can make their clothes last longer, and make their money work more ethically by 'divesting away from the dirty old economy and into a new, cleaner economy.' [146]

Prime Minister Mottley, like others, called for an understanding that all the issues we face are inter-connected.[147] Looking ahead, if humanity fails to address the integrated socio-eco-environmental crises adequately, then the ensuing climatic catastrophes, and the social and economic chaos that will inevitably follow, will impose drastic changes, ultimately involving an increasingly inhospitable climate on earth, and a significantly diminished habitable landmass due to higher water levels.[148] The geologist Iain Stewart has pointed out that the current negative impact of humanity on the planet will not destroy the earth; he stated that the planet itself will survive, albeit with different conditions, as it has done after past cataclysms, but humanity and the current life-forms on earth may not survive; at least not all of them, nor as we know them now.[149] In other words, continuing on our current course would have a disastrous impact *for all life* on our planet; a planet which seems to be unique in its ability to sustain diverse and advanced life-forms. Latest astrophysical information at the time of writing indicates that within our galaxy, planets capable of sustaining advanced life-forms are very rare – so rare that we have not yet found another planet that has produced the diverse and advanced life-forms that planet earth has.[150] There are profound existential reasons for humanity to look after our common planetary home, reasons that override the relatively short-term economic gains that some people seek to safeguard.

2b: Foundational Qur'anic principles for integral ecology

The important concept of balance has been addressed in Part 1b.ii, as it relates to the Qur'anic use of equipoise and counterbalance, and in Part 2a.i, as it relates to the central term *mīzān* in the discussion of natural balances. Part 2a.i also introduced the key Qur'anic environmental perspective of the natural world as 'signs of God' (*āyāt Allāh*), which is expounded in further detail in Part 3.3 (on *LS 5 and Qur'anic 'signs of God'*). The ecological concepts of humankind's custodial responsibility on earth and accountability to God are also addressed in Part 3. This section, Part 2b, addresses other

Qur'anic principles that also form part of an Islamic integral ecology. Part 2b.iii discusses the principles of justice, equitability, moderation, and uprightness (which all link to balance). Part 2b.iv unpacks the foundational principle of unity (*tawḥīd*), which is the very fulcrum of cosmic interconnectedness. Thereafter, Part 2b.v explores the term *fiṭrah* (meaning 'nature/character'), found in the Qur'anic phrase, 'the nature of God' (*fiṭrat Allāh*; Q. 30:30), with implications for a divine-human anthropology that is crucial for ecology; (as noted in LS 118, 'there can be no ecology without an adequate anthropology).[151] Part 2b.vi unpacks the names of God as a portrait of the divine nature/character; as a paradigm of ethical principles for humankind to emulate; and as an overarching framework within which to situate ecological wisdom.

iii) Fundamental Qur'anic virtue-principles of moderation/balance (wasaṭīyah, iʿtidāl, taʿādul), justice/equitability (ʿadl, qisṭ), and uprightness (istiqāmah, mustaqīm, taqwīm)

It does not need religious faith or belief in God to see that the answers to the existential challenges we face require humanity to return to a more moderate and ethical manner of living, for 'the human race is faced with a common threat of unprecedented proportions and *we* [the human race] are the threat itself'.[152] As shown in the preceding sections, the exhaustion of natural resources, and the degradation of the earth and natural habitats through immoderate human action, can no longer be disguised as positive progress. Excessive and endless 'progress' is simply not sustainable, as scientists have long warned. 'We have recognised that it is impossible to continue progress with the speed and in the manner we have been pursuing for more than two centuries. The idea of sustainable development is a result of this thought, and it is based upon an understanding of the limits of natural resources as well as of human dependency on this world.'[153]

People of faith, including Muslims and Catholics, are also increasingly highlighting the teachings in their Scriptures and religious traditions that point to a moderate and ethical way of living, with care for other creatures on earth and a respect for the earth itself, as the desirable *modus vivendi* for humanity. LS 222 draws attention to how 'Christian spirituality proposes a growth marked by moderation and the capacity to be happy with little'.[154] Khalid points out that one of the key precepts of Qur'anic ethics is to 'act with moderation at all times'.[155] As the antithesis of moderation, excessiveness (*isrāf*), and especially the desire to accumulate more and more (*takāthur*),[156] are strongly criticised in the Qur'an, not least in chapter 102, which is discussed immediately below.

Virtue (khayrāt) versus excessive accumulation (takāthur)

The Qur'an strongly advocates against excessive materialism and the accumulation of earthly riches. In various chapters, it presents the Scriptural theme of the spiritual danger of excessive earthly wealth without an acknowledgement of accountability to the Higher Power. For example, Chapter 102

of the Qur'an is entitled *Takāthur,* which signifies mutual rivalry and contention in accumulating the most property, children, or wealth.[157] Addressing those who give their life and attention to accumulating more and more worldly things, the whole chapter is a condemnation of *takāthur* and graphically describes the bad end it leads to.

> Rivalry in worldly accumulation distracted you. Until you called on the graves.[158] Nay, but you will know. Again, nay, but you will know. Nay, but if you knew with certain knowledge; you surely will see hell-fire. Again, you will see it with certain vision. Then you will be asked, that day, about bliss. (Q. 102: 1–8)

It is not competitiveness per se that is denounced in Q. 102, but excessiveness, and the type of goal being pursued. This is further borne out by Q. 5:48, which presents the counterbalance to Q. 102. In Q. 5:48, the Qur'an advises people to 'vie in good things' (*fa-'stabiqū'l-khayrāt*). The word for 'good things' is *khayrāt* which means 'good qualities' and 'good acts'.[159] Read like this, the Qur'an presents increase in virtue (*khayrāt*) as the counterbalance to materialistic acquisitiveness and accumulation (*takāthur*).

While a sound Prophetic narration (*ḥadīth ṣaḥīḥ*) teaches that wealth is not a bad thing for one who remains pious,[160] i.e., for one who has a moral framework and puts their wealth to spiritually beneficial use, nonetheless, Q. 43:29–35 reiterates the message that in God's view, the worldly rank and wealth that people seek to amass is of little weight compared to God's mercy: 'the mercy of your Lord is better than what they amass' (43:32). Having described the silvered homes, golden ornaments, and luxuries, that God might think nothing of giving to those who disbelieve in Him the All-Gracious, this set of verses – which is rather startling, at first glance – ends with the statement, 'that is all nothing but the transient enjoyment of worldly life, but the hereafter with your Lord is for the pious' (Q. 43:35). This drives home how utterly unimportant and unimpressive worldly opulence is in God's view.[161]

This is echoed in verses Q. 56:41–50, which speak of the infernal end of those who lived, 'luxuriating in excess' (56:45), while at the same time engaging in great sin (56:46), and denying that people will be resurrected and held to account (56:47–8). Interestingly, while the Qur'anic descriptions in these verses pertain to the outcome in the hereafter – 'fiercely hot wind' (*samūm*) and 'broiling water' (*ḥamīm*) (56:42) and 'the dark shadow of ashes' (56:43) – they are very reminiscent of the effects of climate change on earth, such as wildfires, which have not only become more frequent and fierce due to climate change, but also more difficult to extinguish, due to severe weather conditions like unpredictable and strong winds.[162] It could now be said that the human pursuit of unlimited excess and luxury has unleashed hell on earth.[163] This bears out Khalid's claim that, 'safeguarding against human excess has the effect of protecting the natural world'.[164]

Moderation and balance (wasaṭīyah/iʿtidāl)

The preceding paragraph showed the scriptural affirmation of virtue as the best way of living for humankind. Some of the virtue-principles highlighted in the Qur'an are moderation, justice and equitability, and uprightness or moral rectitude. The stern Qur'anic critique of excessiveness and luxury already strongly indicates the virtue of moderation. Further aspects of moderation feature in Q. 2:143, which describes the Muslim community as, 'a middle community', in Arabic *ummatan wasaṭan* (from which the term *wasaṭīyah* is derived), and in Q. 17:110, wherein believers are exhorted to adopt a temperate tone when vocalising prayer: 'do not be loud in your prayer nor inaudible but seek between those a way'. Highlighting another element of moderation, Q. 17:29 advocates being neither niggardly nor spendthrift: 'Do not tie your hand to your neck nor extend it utterly lest you sit reproached and distressed [in need yourself]'. In different ways, then, moderation is advocated in the Qur'an as the healthy, balanced mode of living.

The concept of moderation is interrelated, both semantically and linguistically, with the Qur'anic precepts of balance (*iʿtidāl, taʿādul*), [165] justice (*ʿadl*), and equitability (*qisṭ*). Semantically, balance, equitability and moderation are self-evidently connected. Linguistically, the words *iʿtidāl* and *taʿādul* have the same verbal root as *ʿadl*, which I will now discuss.

Balance, justice, and equitability (ʿadl/taʿādul, qisṭ)

The terms *ʿadl* and *qisṭ* are very close in meaning.[166] Both mean 'justice', 'equity', and being 'morally upright'. Along with justice, equity and rectitude as the primary meanings of the word *ʿadl*,[167] the Arabic verbal root from which it is derived (*ʿ-d-l*) [168] has an intimate connection to the concept of evenness and balance (*taʿādul; iʿtidāl*).[169] *Taʿādul* and *iʿtidāl* are the common Arabic words for moderation. For its part, *qisṭ* and its verbal root (*q-s-ṭ*),[170] also have the primary meanings of 'justice', 'balance' (in the sense of scales), 'equitability', and 'just apportioning'. The Qur'an promotes the virtues of justice/equitability in several verses,[171] for example, with phrases like, 'Verily God loves those who are just/equitable/measured' (Q. 5:42; 49:9; 60:8); and 'Say my Lord commands fairness/justice (*qisṭ*)' (Q. 7:29); 'Verily God commands justice (*ʿadl*) and doing good' (Q. 16:90). Another evocative verse in which *ʿadl* is mentioned is Q. 6:115: 'The Word of your Lord is perfected through sincerity and through justice'. Q. 4:127 commands the upholding of the rights of orphans justly (*bi'l-qisṭ*). And in perhaps one of the most famous verses regarding being impartial in justice, Q. 5:8, using both the verbs *ʿadala* and *qasaṭa*, urges those who believe to be just:

> O those who believe! Stand firm for God, being just witnesses (*shuhadāʾ bi'l-qisṭ*), and do not let the hatred of a people drive you to not being just. Be just (*iʿdilū*), it is closer to piety; and fear God, verily God is well aware of what you do. (Q. 5:8)

Qisṭ is also directly linked with 'balance' (*mīzān*) in several Qur'anic verses. For instance, Q. 6:152 states, 'fill the measure (*kayl*) and the balance (*mīzān*) justly (*bi'l-qisṭ*);' and Q. 11:85 urges, 'O people, fill the measuring scales (*mikyāl*) and the balance (*mīzān*) justly'; and not least, Q. 55:9 itself counsels, 'set the weight (*wazn*) [of things] justly (*bi'l-qisṭ*) and do not diminish/spoil the balance (*mīzān*).'

ʿ*Adl* also denotes moral uprightness,[172] which, along with physical uprightness, is signified primarily by the word *istiqāmah* – to be physically upright you have to have good physical balance and to be morally upright you have to be 'balanced', i.e., reasonable. Through its inter-related meanings, ʿ*adl* is therefore also intimately connected to *istiqāmah*, the subject of the next sub-section.

Uprightness, balance, symmetry, rectitude (istiqāmah, mustaqīm, taqwīm)

Symmetry, balance, and morality come together in *istiqāmah,* which denotes moral and physical uprightness, evenness, straightness, and rectitude.[173] *Istiqāmah* is from the same verbal root (*q-w-m*)[174] as the word *mustaqīm.*[175] *Mustaqīm* means 'straight', and features in the scriptural phrase, 'the straight way' (*al-ṣirāṭ al-mustaqīm*) that can be found in fourteen Qur'anic verses, including Q. 1:6. This verse (Q. 1:6), is recited at least seventeen times a day by Muslims in their canonical prayers, and articulates the supplication for God to 'guide us on the straight way'. *Al-ṣirāṭ al-mustaqīm* is frequently interpreted to mean the religion of Islam, with the implication that the religion is meant to be implemented in a balanced way that is just and morally upright. Thus, the very first chapter of the Qur'an, 'The Opening', points the direction to a balanced, even-handed and morally upright way of living. In addition, Q. 95:4 – 'Indeed We [God] created the human in the best stature/most beautiful balance' (*la-qad khalaqnā'l-insāna fī aḥsani taqwīm*) – affirms symmetry, uprightness and balance, in another word, *taqwīm*. *Taqwīm* is derived from the second form of the *q-w-m* verbal root, *qawwama*, which means to make something straight, even, rightly-directed, exact, equal.[176] While the direct meaning of *taqwīm* is 'form' or 'stature' or 'mould',[177] by virtue of its verbal root it is imbued with the idea of symmetry, balance, and rectitude, or being rightly-guided. The following verses (Q. 95:5–6) go on to say that the human was then reduced to the 'lowest of the low' (which seems to be a reference to the fact that the human is an animal on earth), 'except for those who believe and do good for they shall have a reward unreckoned'. This shows that verse 95:4 is applicable to humanity's ethical character, as well as to the physical human form. [178]

The analysis in this section has demonstrated the intertwined semantic nexus of moderation, justice/equitability, moral rectitude/uprightness, and balance[179] found in the Qur'an.[180] These virtue-principles are a significant part of the fabric of Qur'anic integral ecology. The opposite of these virtues is indicated in the Qur'an by terms such as *ẓulm* ('oppression', 'darkness', 'injustice'),[181] *kufr* ('denial

of God' and, by extension, of His qualities),[182] *ṭughyān* ('transgression', 'tyranny', acting 'wickedly')[183] and *takāthur* ('greedy accumulation', 'competing to accumulate more and more').[184] The Qur'an denounces these vices with phrases like, 'God does not love those who oppress/persecute/commit sins/do wrong' (*Allāhu lā yuḥibbu'l-ẓālimīn*) (Q. 3:57, 140). The preceding discussions have illustrated that a balanced, and therefore reasonable, way of living (with justice, rectitude, and integrity), is foundational to ethical Islamic practice.[185] When we consider the key Qur'anic principles of balance, justice, and moderation, it is clear that acquisitiveness, immoderation, and injustices (i.e., the imbalances that are at the root of and feed the global climate, environmental, and socio-ecological crises, and which are counter to *istiqāmah, ʿadl*, *qisṭ* and *mīzān*) are antithetical to an Islamic way of living.[186]

The virtues discussed in this section are thus particularly pertinent to today's socio-eco-environmental problems. Moreover, these virtue-principles are not restricted to Islam, they are found and valued in all human traditions and, if applied appropriately and adequately, they could have pre-empted some of the socio-ecological causes of the issues discussed in this study. If applied now, they may yet help to rectify the current socio-ecological and environmental crises. Osman Bakar goes so far as to say that in addressing the current ecological crisis, the most pertinent factors are the principles of balance and moderation (*wasaṭīyah*), and to avoid transgressing the providential limits found in the human and natural worlds.[187]

iv) Tawḥīd (unity) and integral ecology

The popes and patriarchs of the Catholic Church have long been warning of the overall trend of humanity's aggressively consumerist mode of being. In LS 2, Pope Francis speaks of 'the harm we have inflicted on [earth] by our irresponsible use and abuse of the goods with which God has endowed her'. The Pope identifies the earth itself, 'burdened and laid waste', as among 'the most abandoned and maltreated of our poor'. Osman Bakar, too, cautions against a wasteful and excessive consumption of the earth's resources. 'Having created nature without waste, (God)… warns man not to commit excesses in his consumption of natural resources, since excesses and waste are synonymous.'[188] Reminding us of the Qur'anic injunctions in Q. 6:141, to eat fruits in their seasons, and to avoid excessiveness and waste, which God dislikes, Bakar links the restoration of the health of the planet directly to 'uprooting the culture of waste and consumerism in [human] society'.[189]

As explained in Part 1b.iii, LS identifies integral ecology as an essential component in redressing the situation. In a succinct analysis of traditional integral ecology, Bakar explains the concept as expressing 'the natural state of interrelatedness and interdependence between the natural and human worlds and the balanced state of ecological interface between the two worlds'.[190] Having

engaged with *Laudato Si'*, Bakar recognises an overlap between the Catholic viewpoints on integral ecology expressed by Pope Francis and those of 'Islam's *tawḥīdic* perspectives'.[191] He goes further to offer that 'the Pope's integral ecology could easily be integrated into the *tawḥīdic* perspective'.[192]

The word *tawḥīd*ic is coined from the central Islamic term *tawḥīd* ('oneness', 'monotheism', 'unification', 'merger'),[193] whose primary theological significance relates to the monotheistic doctrine of the oneness and unity of God. The theological theory of *tawḥīd* is literally rooted in God and is comprehensive, particularly as expounded in Islamic spirituality. Bakar notes that traditional Islamic sciences drew 'the necessary ecological inference from the idea of Divine Unity' and called this ecological principle 'the "Unicity of Nature" which conveys the ideas of interrelatedness, interconnectedness, interdependence and unity'[194] and that this is 'the most fundamental principle in Islamic ecology and environmental science.'[195] Fazlun Khalid describes *tawḥīd* as the testimony to the unity of God, the unity of all creation, and the bedrock of Islam's holistic approach, affirming the interconnectedness of the natural order of which humankind is an intrinsic part.[196] *Tawḥīd*, then, is the fulcrum-term for Islamic integral ecology.

This essential concept of *tawḥīd* is verbally and semantically related to the cardinal divine name *al-Wāḥid* ('the Only', 'the Unique').[197] Both the name *al-Wāḥid* and the term *tawḥīd* stem from the verbal root *w-ḥ-d*, which signifies being 'one', 'unique', 'singular', 'incomparable'.[198] *Al-Wāḥid* and *tawḥīd* are closely related, both semantically and in form, to another cardinal divine name, *al-Aḥad* ('the One', 'the Only'), which stems from the verbal root *ʾ-ḥ-d*, meaning 'to be one', 'to unite', 'to unify'.[199] The second forms of both verbal roots (*w-ḥ-d* and *ʾ-ḥ-d*) signify 'unification', 'uniting', 'making one', with the word *tawḥīd* being the verbal noun of the second form of *w-ḥ-d*.[200] While there is no doubt that both names signify 'oneness', Qur'anic exegetes have always debated the subtle nuances regarding the connotations of these two divine names. According to *The Study Qur'an*, some exegetes treat the two names as synonyms, others accord a numerical value to *wāḥid* and an absolute value to *aḥad*, and yet others take *wāḥid* as denoting 'oneness' in relation to external entities and *aḥad* as denoting an 'internal oneness'; *wāḥid* is also understood as conveying 'relational oneness' and *aḥad* 'non-relational oneness'.[201] In short, the divine names *al-Wāḥid* and *al-Aḥad* express both an 'exclusive, external oneness' and an 'internal, inclusive, indivisible oneness'.[202]

Chapter 112 of the Qur'an has four short verses which contain a powerful proclamation of divine unity. It commences with a succinct affirmation of divine unity, *Qul huwa Allāh Aḥad* (Q. 112:1), which is made all the more intense in the Arabic by the use of the nominative case.[203] Literally rendered, the statement is, 'Say, He God One' or, 'Say, He (is) God (is) One'. It is more commonly translated along the lines of 'Say, He is God/Allah, one' or 'Say, He, Allah/God, is one.'[204] Through a

single name, *al-Ṣamad* ('the Self-sufficient Lord besought'), the second verse of this chapter – 'God, the Self-sufficient Lord besought' (*Allāhu'l-Ṣamad*) – proclaims God's absolute self-sufficiency and His being the Lord whom all creation turns to and seeks. By stating that, 'He does not beget nor is He begotten' (*lam yalid wa lam yūlad*), the third verse in effect informs us that God does not derive from anything, and nothing issues from Him to go outside of Him; God is *sui generic*. And the final verse, 'and there is nothing equal to Him' (*wa lam yakun lahū kufūwan aḥad*), declares God's transcendence.

In sum, God is one of a kind, unique, incomparable, transcendent and indivisible. Nothing contains Him; nothing is outside of Him; He contains everything. LS 233 also expresses this perspective, 'The universe unfolds in God, who fills it completely.'[205] The divine encompassment of the heavens and the earth, of humankind and all things, is affirmed in numerous verses elsewhere in the Qur'an, including in conjunction with divine names such as *al-Muḥīṭ*, 'the All-Encompassing'. For instance, Q. 4:126 states, 'To God belongs what is in the heavens and what is on earth; God always encompasses everything' (*kāna'llāhu bi-kulli shayʾin muḥīṭ*) and Q. 41:54, 'But verily He (God) encompasses everything'(*innahu bi-kulli shayʾin muḥīṭ*). Likewise, verses which have produced the semantically similar divine name *al-Wāsiʿ* ('the Comprehensive', 'the Encompassing') are used to show how God includes everything in His mercy and His knowledge; for example, 'My Lord encompasses (*wasiʿa*) everything in knowledge' (Q. 6:80) and, 'Our Lord! You encompass everything in mercy and knowledge' (Q. 40:7). Q. 20:98 states, 'But your God is Allāh, there is no God but Him, He encompasses (*wasiʿa*) everything in knowledge.' Therefore, while God transcends all creation, it is also the case that the whole of creation, all cosmic multiplicity and diversity is contained by Him and united in Him.[206] Everything is connected and united in and through God. Jaʿfar al-Ṣādiq is said to have commented on the divine name *al-Aḥad* ('the Only One'; Q. 112.1) that, '*Al-Aḥad* is the Sole One who has no equivalent, for He is the One who unifies the (multiple) individuations (*al-āḥād*)'.[207] Thus, in addition to divine oneness, the word '*tawḥīd*' signals a unity *in divinis* of all creation and of all multiplicity.

Congruently, there is a continuity of divine unity *in* the cosmos; a unity of source and of purpose; of divine intent and divine qualities. Osman Bakar notes that the 'unicity of nature' derives from the divine unity, and that the Qur'an also argues for the unity of God on the basis of the unity of the cosmos and of nature (e.g., Q. 21:22).[208] In his study of the famous Andalusian mystic, Muḥyī'l-dīn Ibn ʿArabī, Ismail Lala points out that Ibn ʿArabī held that, 'the fundamental telos for the cosmos and everything in it is that He [God] be known'.[209] This view is in keeping with a sacred, divine saying (*ḥadīth qudsī*) attributed to the Prophet of Islam ﷺ, namely, that God declared: 'I was a hidden treasure and I loved to be known, therefore I created creation.'[210] The ultimate purpose of creation then, its very *raison d'être*, is for creation to know the Creator *through His creation*. Bakar states that it is possible to know God through the cosmos because each of His names and qualities is manifested

or reflected in it,[211] and the cosmos is 'a book of divine signatures'.[212] In other words, wherever there is a divine quality there is a signature of God. Interpreting the scriptural phrase, 'Blessed is He who placed in the sky stellar mansions' (Q. 25:61), the Prophet's direct descendent, Imām Jaʿfar al-Ṣādiq, is credited with having said, 'Just as the One known has no limit to Him, even so, knowledge of Him has no limit.'[213] From an Islamic spiritual perspective, then, this single purpose of knowing God is infinite and comprehensive, because God is 'the Infinitely-Vast and Comprehensive' (*al-Wāsiʿ*) and 'the All-Encompassing' (*al-Muḥīṭ*). At the same time, the single, infinite purpose of knowing God is profoundly unitive, because God is 'One' (*al-Aḥad, al-Wāḥid*) and the multiplicity of divine names themselves are integrated into unity in God Himself, signalled in the name *Allāh*, which combines all the other divine names.[214] Cosmic multiplicity comes back yet again to divine unity, *tawḥīd*.

Different creatures participate in this eternal and infinitely unitive journey of knowing God, in different ways. As far as humanity is concerned, Q. 41:53 states, 'We [God] shall show them Our signs in the horizons and in themselves until it becomes evidently clear to them that it is the Truth/the Real (*al-Ḥaqq*).'[215] For humankind then, the journey of knowing God necessarily entails recognising God's signs,[216] His traces, in ourselves, on the earth, and in the heavens; and, witnessing His signs and signatures in His creation, to love and respect Him and His creation. Crucially, knowing God is not just a theoretical thing; knowledge of God entails conduct that is concordant with His qualities.[217]

Ecological implications of the theology of tawḥīd

Thanks to the intrinsic link between the ideas of divine unity and the unity of nature, Islamic ecological consciousness is (or should be) a major part of Muslim religious consciousness.[218] The concept of *tawḥīd* conveys the Islamic perspective of creation as a unified combination of innumerable multiple elements, all created and held together by/in God,[219] and which function in a divinely ordained natural balance.[220] The application of *tawḥīd* to integral ecology would then imply the recognition of creation (i.e., the whole universe, all creatures, all eco-systems, the natural world) as a profoundly inter-connected state of existence which contains delicate balances and harmonies set in place by the Creator, the Author.[221] Furthermore, a key element of the '*tawḥīdic*' ecological role of humankind – placed by God as stewards on earth (Q. 6:165)[222] – must be to cherish and maintain the balances in creation and the natural world, and to avoid excessiveness and waste in the use of its resources.[223]

Whichever way it is traced, the theological route of humanity's ecological role based on *tawḥīd* comes back to 1) respecting all aspects of creation, including all creatures, as something intrinsically sacred through the connection of all creation to God Himself; 2) recognising the interconnection of all parts of creation to each other through Him, and 3) recognising and reflecting

this appropriately, in thought, word, and deed, as part of humanity's spiritual purpose of knowing, loving, and respecting God.[224] An ecological awareness and sense of responsibility, and concomitant good practices, are inseparable from a Muslim's spiritual journey.

v) Fiṭrat Allāh, the nature/character of God

In addition to the concept of *tawḥīd*, there is the Qur'anic perspective that God has endowed the human being with something of His own spirit (*rūḥ*) and potentially something of His own character or nature (*fiṭrat Allāh*). Q. 15:29 and 38:72 provide, in identical wording, a categorical description of the endowment of something of the divine spirit to humankind. Here I will cite Q. 15:28–29:

> [15:28]And when your Lord said to the angels, "I am creating a human being from dried clay of moulded black mud. [15:29]So, when I have shaped him symmetrically and *I have breathed into him from/of My spirit* (*nafakhtu fihi min rūḥī*), then fall prostrating to him."[225]

According to Q. 15:29 (and 38:72), then, God has breathed something from/of His very own spirit into the human being. Bakar observes, 'there is even something "divine" in man by virtue of the fact that God has breathed into Adam of His Spirit (*min rūḥī*), meaning into man generally since Adam symbolises the human species.'[226] Regarding the endowment to humanity of something of the divine characteristics or nature of God, the Qur'anic basis for this may be identified in a more enigmatic scriptural reference that speaks of 'the nature/character of God according to which He created humanity' (*fiṭrata'llāhi'llatī faṭara'l-nāsa ʿalayhā*) in the second clause of Q. 30:30.[227] The word *fiṭrah* is a Qur'anic *hapax legomenon*, found only in this verse (provided here with sub-clauses marked):

> [30:30-i]'So set your face to religion (*dīn*) rightly-inclined (*ḥanīfan*); [30:30-ii]God's nature/character according to which He created humanity (*fiṭrata'llāhi'llatī faṭara'l-nāsa 'alayhā*); [30:30iii]no change to God's creation (*lā tabdīla li-khalqi'llāi*); [30:30-iv]that is the right religion (*dīn*), [30:30-v]but most people do not know.'

The clause in question (30:30-ii) elliptically refers to 'the nature of God according to which He created humanity' and seems to suggest that the ontological archetype of human nature/character is nothing less than the divine nature/character. This clause, and in particular the term *fiṭrah*, has been interpreted in different ways historically by Qur'anic exegetes and remains a point of varying interpretations.[228] It has frequently been interpreted to mean either religion (Abrahamic and/or Islam) or simply monotheism.[229] Other exegetes interpreted it as 'original nature', 'innate constitution' or 'creation'.[230] Modern renditions of the term into English opt mainly for 'nature', 'primordial nature', or 'the pure nature of humanity'.[231] In their notes on *fiṭrah*, Badawi and Haleem render it as 'creation' and go on to define *fiṭrat Allāh* of Q. 30:30 as, 'the genesis of creation, the original unadulterated nature of things, natural disposition'.[232] With regard to current eco-environmental matters, Fazlun

Khalid interprets *fiṭrah* with reference to physical nature, defining *fiṭrah* as the scriptural description of 'the primordial condition of the Earth into which humankind was brought into being'[233] and 'the origination of the human species within the bosom of the natural world'. Saadia Khan Chishti interprets *fiṭrah* as referring 'to the primordial nature of things'[234] and relates it, like earlier exegetes, to the religion of Islam.[235]

To give my own view, based on my research, briefly: a close reading of the Arabic phrase in Q. 30:30-ii, *fiṭrata'llāhi'llatī faṭara'l-nāsa ʿalayhā,* (meaning, 'the nature of God according to which He created humankind') and a consideration of how the verbs *faṭara* and *khalaqa* are used in the Qur'an, leads me to conclude that the term *fiṭrat Allāh* in Q. 30:30 may be interpreted as referring to the nature of God's character, in other words His characteristics or qualities. Consequently, the clause in question (30:30-ii) seems to suggest that God's character/nature is the archetype according to which the nature of all humankind – irrespective of race, gender, creed or dogma – has been made.[236] This bears out Ibn ʿArabī's assertion that, 'Not one of His creatures would fail to find Him in/through its (or His)[237] original nature and innate disposition' (*lā yafqiduhu aḥadun min khalqihi bi-fiṭratihi wa jibillatihi*).[238]

These above different, but not entirely disconnected, interpretations should all be taken into consideration – bearing in mind that the Qur'anic exegetical tradition allows for multiple valid interpretations of scriptural words and passages. (As noted in Part 1b.i, Qur'anic exegetes often, and famously, cite numerous possible interpretations of a single verse or word, allowing that any of them may pertain.) It is my view that the applications of the term *fiṭrah* primarily to humanity's innate moral character, with reference to God's character as the archetype and source of the human moral character, on the one hand, and the views of those who prioritise the natural world as the referent of the term on the other, are like the internal (*bāṭin*) and external (*ẓāhir*) aspects of the same concept; both are valid interpretations contained within the term in its fullness. Like the term *tawḥīd*,[239] *fiṭrah* is applicable both internally within the human being, as it relates to the self, and also externally, as it relates to the exterior cosmos.

vi) The theocentric nature of Islamic ecology: divine names as key components of divine-human nature (fiṭrat Allāh) – an ethical paradigm for humanity and an overarching framework of reference

Names as nature

As has been explained in the preceding section on *fiṭrat Allāh*, the Qur'anic passages Q.15:29 and Q. 30:30-ii may be interpreted as suggesting that not only did God breathe something of His own spirit (*rūḥ*) into the human being, He also gave the human being characteristics derived from God's own qualities, namely people's innate ethical characteristics or nature (*fiṭrah*).[240]

As has already been deliberated, the relevant phrase, 'God's nature/character according to which He created humanity' (*fiṭrata'llāhi'llatī faṭara'l-nāsa ʿalayhā*) may be interpreted as indicating that God's own nature/character is the archetype of human nature/character and that God endowed humanity – irrespective of differences of dogma, race, gender and suchlike – with something of His own qualities, powers and capabilities, albeit in delimited manner. In light of this, and given that the qualities, characteristics and capabilities of God are described in Scripture through different divine names and designations, it would follow that the latter are part of humanity's nature. The views of the masters Ghazālī and Ibn ʿArabī on this point have already been discussed in Part 1b.ii. Bakar identifies the blowing of the divine Spirit into the Adamic (i.e., human) form as the cause of humankind's 'spiritual-intellectual dimension', because this breath of divine spirit has 'imprints of the Divine Names and Qualities that enabled him [Adam] and human beings generally to acquire spiritual and intellectual virtues'.[241] With reference to Q. 2:115 ('To God belong the east and the west, wheresoever you turn, there is the Face of God,[242] verily, God is comprehensive, knowing'), Ibrahim Özdemir notes that, 'If God reveals Himself – that is His majesty, mercy, and all other sacred, beautiful names and attributes through the aesthetic dimension of nature as well as its orderly structure – then it is not difficult to get the idea that wherever humans look we can easily feel the presence of God all around and within us.'[243]

For the benefit of those who might be concerned at the idea of ascribing divine characteristics to humanity, even in delimited mode, the following sub-section substantiates the idea by showing that it is supported by the fact that the Qur'anic language used to describe the nature/character of God is comprehensible in human terms and applicable to humans, albeit with a difference of degree. In other words, many divine names designate qualities that are normally to be found within people. Moreover, the Qur'an itself uses such language to describe humans as well as God.

From theological descriptions to normative prescriptions: God's characteristics as an ethical paradigm for humanity

'All […] aspects of the Qur'anic ethical worldview (are) essentially tied to the ethical nature of God.'[244] The concept of divine characteristics being paradigms of human behaviour is reinforced in all Qur'anic verses that exhort humanity to action that is consonant with designated divine qualities. For instance, Q. 9:128 uses the words *raʾūf* ('compassionate') and *raḥīm* ('merciful') to describe the Prophet ﷺ. These words also constitute the divine names *al-Raʾūf* ('the Compassionate') and *al-Raḥīm* ('the Merciful'), which are found numerous times in the Scripture. Similarly, the verb 'to forgive' (*ʿafw*) is used for both God and humans in Q. 4:149, which states: 'If you manifest goodness, or you conceal it, or if you forgive (*taʿfū*) an evil, verily God is forgiving (*ʿafūwan*), powerful (*qadīran*)', while Q. 7.199 uses the same verb when instructing the Prophet: 'Observe forgiveness' (*khudhi'l-ʿafwa*).[245] The word

ḥalīm ('gentle', forbearing') is used eleven out of fifteen times in the Qur'an to refer to God Himself, as one of His names,[246] but is also used to describe both Abraham (Q. 11:75) and Shuʿayb (Q. 11:87).[247] Another example of a characteristic being ascribed to both God and humans in the Qur'an, is found in the use of the *b-r-r* verbal root. The designation 'the Righteous' (*al-Barr*) is used of God once, in Q.52:28, 'He is the Righteous, the Merciful' (*innahū Huwa'l-Barru'l-Raḥīm*).[248] The indefinite form of the same word, *barr*, is used of Jesus, son of Mary (Q. 19:32), and of the prophet Yaḥyā (John the Baptist) (Q. 19:14). The plural *abrār* is used six times[249] in reference to virtuous people of high eschatological rank. The word *birr*, also meaning 'righteousness', is defined in Q. 2:177 with a broad reference to people who believe, those who spend of their wealth to help others (particularly the vulnerable), those who pray and are charitable, those who fulfil their promises, and those who persevere patiently through difficult times and trials.[250]

The above examples contribute to the sense that there is a natural continuity between divine and human characteristics. That is why it is possible for theological descriptions of God – such as merciful, compassionate, forgiving, just, equitable, kind, loving, protective, restorative, patient, tolerant, responsive, all-inclusive, to name a few – to serve as normative ethical benchmarks for human values and conduct. From a doctrinal perspective, it would be anathema for Muslims to think of any being other than God as the primary source of power, goodness, mercy, love and all the other characteristics enshrined in the divine names. '*Tawḥīd* affirms the absolute unity of God's Attributes and Qualities.'[251] The logical follow on from this is that wherever any of these qualities are found, they are His and stem from God's own qualities. That is why it is right to speak of a continuity of these qualities, whether they be described as manifestations, extensions or reflections. They are always from God, being always His, but are found also in creation, as endowed by God. The difference is one of degree – and, most pertinently, of how creatures, and more specifically humans, choose to use the qualities. Crucially, if humans choose to do something in harmony with a divine quality, they extend the spiritual light of that quality, which in turn has positive impacts on earth. Concomitantly, if people choose to do something that opposes a divine quality, they block the extension of that quality in/on earth. Blocking the spiritual light of a divine quality creates an equivalent spiritual darkness and result in unmistakable and tragic repercussions on earth.[252] That is why it is so important to weigh up our thoughts, words and deeds on the scales of the divine qualities to assess the impact they will have.

The divine names and designations as an overarching principial framework for ecological wisdom

As demonstrated, Qur'anic usage of certain divine characteristics show that they constitute benchmarks for norms of human behaviour, providing an ethical paradigm for people to emulate. By analogy and extension, this is applicable to all divine characteristics that are echoed in humankind. Consequently, the principles enshrined in Qur'anic divine designations can yield an overarching

principial framework for interpreting and implementing Qur'anic and Islamic injunctions and teachings. The proposed overarching framework can be applied to wider human discourses, including ecology and universal human rights and freedoms.[253] For instance, the scriptural and traditional wisdom related to integral ecology noted in this study can all be situated within such a framework, as is demonstrated below. Pertinent to the discussion below is the view of Said Nursi (d. 1960), spiritual master and one of the most influential thinkers of modern Turkey; he has been described as an outstanding modern representative of the tradition embodied by al-Ghazālī, Ibnʿ Arabī and Rūmī (d. 1273).[254] Özdemir points out that Nursi held that 'everything has numerous aspects that give onto Almighty God like windows', that 'the reality of the universe and of all beings is based on the divine names', and that 'the attributes of things… are all based in a [divine] name'.[255]

To start with the fundamental ingredient of 'life', all of life comes within the fold of the divine name *al-Ḥayy* ('the Living One'). God is 'the Living'. He is also the 'One and Only' (as discussed in the section on *tawḥīd*).[256] Therefore, all of life in all its diversity, all living things, are of Him, from Him and return to Him; all life belongs to 'the Living One'. [257] Therefore, whenever we engage with a living creature, we are engaging with a manifestation or expression of the Living One's attribute of life, no less. LS 33 refers to the Brazilian bishops' view that, 'nature as a whole not only manifests God but is also a locus of his presence. The Spirit of life dwells in every living creature and calls us to enter into relationship with him.' LS 89 cites the Bible (Wis. 11:26) regarding the created things of this world 'For they are yours, O Lord, who love the living'.

Regarding the natural laws within creation, Osman Bakar points to the scriptural designations of God as 'Lord (*Rabb*) and the Ruler[258] (*al-Mālik*) of the Universe, who gave order and proportion to each creature and ordains laws for the whole [of] creation'.[259] Noting that, 'there are other divine attributes and qualities that participate in the making of the Earth', Bakar points to the following divine names as the most prominent in the creation of mankind's planetary home (with Bakar's translations of the Names given here): *Rabb* ('Guardian-Lord'); *al-Khāliq* ('the Creator'), *al-Raḥmān* ('the Compassionate'), *al-Ḥayy* ('the Life-Giver'), *al-Razzāq* ('the Sustainer and Nourisher'), *al-Ḥakīm* ('the Wise'), *al-ʿAlīm* ('the Omniscient'), *al-Qādir* ('the Powerful'), and *al-Jamīl* ('the Beautiful'). [260]

Saadia Chishti singles out the divine names *al-Muḥīṭ* ('the All-Encompassing') and *al-Muḥṣī* ('the Reckoner') as particularly relevant to environmental matters.[261] Noting the alternative renditions of *al-Muḥīṭ* as 'The All-Encompassing Being' or 'The Divine Environment', she positions both the underlying sanctity of all creation and the believers' concomitant respect and reverence for the physical environmental within this name: 'On the physical plane the Divine Environment manifests itself in an underlying sacredness of all creation; Allah's permeation of His attributes in His creation in

all His forms dictates a reverence of and respect for the believer's physical environmental.' [262] Osman Bakar relates the divine name al-*Wāsiʿ* ('the Comprehensive', 'Extensive', 'Infinitely-Vast') to physical space, and refers to Ibn ʿArabī's theory of the cosmos and its phenomena as God's Self-disclosure.[263]

Within the framework of all the divine designations, any endeavour to maintain the natural order, balance and harmony falls with the remit of God as *Khāliq* ('Creator'), *Musawwir* ('the One who gives form to things') *Rabb* ('Lord/Nurturer'), *Mālik* ('Sovereign'), *al-Qayyūm* ('Preserving Sustainer'), *Ḥāfīẓ* ('Protector'), *Muhaymin* ('Guardian') and *ʿAdl* ('the Just', 'Justice').

The nurturing and sustaining role of humanity is related to the divine *rubūbīyah,* which signifies not only 'Lordship' but also 'nurturing with care', as discussed in Part 1b.ii. As the most intelligent and influential creature on earth, humans also have the obligation to manifest the caring side of this power. To name just a few aspects, animal conservation, protecting the forests, and fairness in dealing with all people of the earth, are all expressions and extensions of divine *rubūbīyah*. The humane and merciful aspects noted in the Qur'anic citations in this study, relate also to the divine names 'the All-Gracious' (*al-Raḥmān*), 'the Merciful' (*al-Raḥīm*), 'the Righteous/the Good/the Dutiful' (*al-Barr*), 'the Compassionate' (a*l-Raʾūf*), 'the Magnanimous/Generous' (a*l-Karīm*), and 'the Kind' (*al-Laṭīf*), among others.

Climate justice is situated within the principles of balance, justice, and equity, designated by the divine names 'the Just, the Equitable' (*al-ʿAdl, al-Muqsiṭ*), and also relate to the principle of mercy – since justice is an element of both mercy and rigour.[264] Reparations for historical injustices is related to requital or retribution, and thus to the aforementioned divine names and also to the divine designations *Shadīd al-ʿiqāb* ('Strong in retribution')*, Sarīʿ al-ʿiqāb* ('Swift in retribution') and *Aḥkam al-ḥākimīn* ('the Most Judicious of judges'). The global north must make fair and proportionate reparations for its share in creating the imbalances and injustices that have led to the climate crisis; and it must make these reparations swiftly and strongly; not weakly and any more tardily than has already been the case.

Endeavours towards the restoration of balances in the natural environment, and in human society more generally, also come into the work of *al-Muntaqim* ('the Avenger'), inasmuch as such activities involve a redressing of previous or existing wrongs. Interpreting divine avengement (*intiqām*) as *rectification* (rather than revenge), then rewilding projects and reparations paid by heavily industrialised countries to developing countries for the loss and damage sustained by the latter due to climate change[265] all fall within the orbit of *al-Muntaqim*,[266] because they make up for a shortfall in goodness by increasing the necessary good and thus restoring the balance.[267] So, from an Islamic

perspective, whenever anyone is engaged in such positive rectifications, they are extending this divine quality, whether or not they conceive of it in such terms.

The scriptural guidance on the preservation of creation (e.g., Q. 30:30 clause 3), in this case the natural world, the planet and the life-forms on earth, falls within the remit of the following divine names. *Al-Qayyūm* ('the Preserving Sustainer') – an essential quality to apply to the environment and life-forms on earth; *al-Ḥafīẓ* ('the Protector'), *al-Muhaymin* ('the Guardian') – relevant to conservation; *al-Muʿīd* ('the Restorer') *al-Muḥyī* ('the Revivifier') – both particularly relevant to rewilding and the restoration of life-forms on the brink of extinction. The performance of these protective functions requires the implementation of further qualities such as *al-Dāfiʿ* ('the Defender'), *al-Māniʿ* ('the Preventer') – both these qualities characterise human beings' decisions not to exploit the vulnerable, including the natural world and its resources, animals on land and sea, and other humans. To be able to make such decisions requires the actualisation (consciously or not) of these divine qualities. Without articulating it as above, many people do this already, out of good common sense – the divine characteristics are the best part of human nature. For instance, when an environmentalist works to preserve the earth and its nature, or a conservationist protects endangered species (and thereby earth's bio-diversity), or a vet looks after an animal, or a human rights activist appeals for social justice, or a government enacts policies to empower the poor and marginalised, or individuals help to look after and empower the poor and marginalised – these are all acts that glorify God because they extend His attributes of nurturing care (*tarbīyah*), provision (*rizq*) and sustaining support (*qiwām*), enablement (*qudrah*), preservation and protection (*ḥifẓ*), justice (*ʿadl*), balance and equality (*taʿādul*), and equitableness (*qisṭ*). These qualities are enshrined in the divine names *Rabb* ('Lord') (from which we get both 'lordship', *rubūbīyah,* and 'nurturing care', *tarbīyah*); *al-Razzāq* ('the Provider'), *al-Qayyūm* ('the Preserving Sustainer'), *al-Shāfī* ('the Healer'), *al-Qadīr* ('the Able'), *al-Qādir* ('the Capable'), *al-Ḥafīẓ* ('the Preserver' and 'Protector'), *al-ʿAdl* ('the Just'), and *al-Muqsiṭ* ('the Equitable'), among others.

Innumerable people positively extend God's qualities in their lives and in the world without being conscious of doing so. Yet every time a person has to make a decision, they can, if they choose to, consciously assess which of the divine names/qualities they will decide to bring into action. [268] To put it another way, they can assess what virtue they will align themselves with in their thoughts, words and action. This is purposive spiritual thinking before action. It is not as easy as it initially might sound. It requires a re-framing of the process of evaluation that informs a person's thinking. It requires a person to orchestrate their life through the instruments of the divine qualities, conducting one's life in ways that prioritise the goal of actualising goodness. Instead of looking at only profit margins, or personal benefit, *decisions are weighed up on the scales (mīzān) of the divine names. The principles*

and qualities enshrined in the divine names are, in my view, the most essential points of reference for human action. This applies to all people but most of all to those in positions of power, authority, and responsibility – those who impact the lives of other people, other creatures, the environment and the planet itself. Such decision making itself requires wise discernment, a characteristic enshrined in the divine name *al-Rashīd* ('the Rightly-Discerning').[269]

As is universally understood, albeit not always perceived in these terms, the crux of the matter lies in achieving a good balance between different, frequently opposing, factors. Throughout human life, individual or communal, people are always, consciously or unconsciously, balancing various alternative options as they make decisions. Needless to say, there are very difficult balances to be configured between, for instance, justice, equity, peace, protection, provisioning, preservation, requital, forgiveness, majesty, and magnanimity. In challenging circumstances, finding a good balance is often very hard and requires a sacrifice of something or other; but it is not impossible. Especially since, for those who believe, God, through His qualities, literally comes into action every time a person draws on His characteristics. To give mercy the last word, and not forgetting that both justice and forgiveness are part of mercy: Even as God made mercy His default mode of being,[270] may humans choose to do the same. For with mercy (*raḥmah*) in its proper place, all things will fall into good balance, and 'All shall be well, and all shall be well and *all manner* of thing shall be well.'[271]

And in God, Lord of the Worlds, we seek help. Amen.

Wa bi'Llāhi Rabbi'l-ʿālamīn nastaʿīn. Āmīn.

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[1] Osman Bakar, *Environmental Wisdom*, pp. 34–35. Further on in his book, Bakar adds humanity's ecological role as a sixth key factor, which I discuss in Part 3.4.iii (on humankind as deputies on earth).

[2] The words *mīzān* and *mawzūn* are both derived from the verbal root *w-z-n* which means to 'weigh', 'balance', 'equilibrate', to be 'just', and, in passive voice, being in a state of 'balance', of 'equipoise'; being 'well-proportioned'; see Badawi and Haleem, *Qur'anic Usage*, p. 1024, Lane, *Lexicon*, p. 3052, Hans Wehr, *Arabic-English Dictionary: The Hans Wehr Dictionary of Modern Written Arabic*, edited by J. M. Cowan ([Place of publication not provided], Snowball Publishing, n.d): p. 1065. For more on the Qur'anic concepts of balance see Part 1b.ii, section on *Confirmation and counterpoise*, and Part 2b.iii, section on *Fundamental Qur'anic principles of balance*.

[3] Mustansir Mir, *Dictionary of Qur'ānic Terms and Concepts* (New York/London: Garland Publishing Inc., 1987), p. 136.

[4] Osman Bakar points out that several Qur'anic verses on the universe deal with an astronomical view or 'picture' of the universe, seeking to present the observable universe as a planetary and stellar system, understandably focussing on earth's own solar system, specifically on the sun, earth and moon and their orbits in a number of verses, but also referring to other stellar systems and constellations (*burūj*) in Q. 15:16; 25:61; 85:1. See Bakar, *Qur'anic Pictures*, Chapter 3, 'The Astronomical Picture of the Universe' (pp. 29–82); pp. 71–82 in particular address the Qur'anic verses that relate to our sun and moon.

A number of Qur'anic chapters have astronomical titles: Q. 53 is entitled 'The Star' and starts with a reference to 'the star when it sets' (Q. 53:1); Q. 54 is entitled 'The Moon'; Q. 85 is called 'The Constellations'; Q. 89 is called 'The Dawn'; Q. 91, 'The Sun'; Q. 92, 'The Night'; Q. 103 is called 'Time'; and Q. 113 is called 'The Dawn-break'. Q. 113:1 also refers to God as 'Lord of the Dawn-break' (*Rabb al-falaq*). Q. 16:16 speaks of human navigational use of stars: 'by the stars they are guided'.

[5] The astrophysicist Ethan Siegal states 'The fact that our Universe has such a perfect balance between the expansion rate and the energy density – today, yesterday, and billions of years ago – is a clue that our Universe really is finely tuned'; see 'The Universe Really Is Fine-Tuned, And Our Existence Is The Proof', Forbes, 19 December 2019, https://www.forbes.com/sites/startswithabang/2019/12/19/the-universe-really-is-fine-tuned-and-our-existence-is-the-proof/?sh=dd0c5a24b87d.

[6] Iain Stewart. *Earth: The Power of the Planet* (BBC, 2007), viewed when aired on BBC 4 on 3 November 2021. Stewart is currently Jordan-UK El Hassan bin Talal Research Chair in Sustainability at the Royal Scientific Society in Jordan. See also Fazlun M. Khalid, *Signs on the Earth: Islam, Modernity and the Climate Crisis* (Markfield: Kube Publishing Ltd, 2019). pp. 40–43.

[7] See Rebecca Lindsey, 'Climate and Earth's Energy Budget', Earth Observatory (NASA), 14 January 2009, https://earthobservatory.nasa.gov/features/EnergyBalance.

[8] Holly Zell, 'The Heliosphere', *National Aeronautics and Space Administration*, 22 January 2013, https://www.nasa.gov/mission_pages/sunearth/science/Heliosphere.html. There is an irony here, of course. Without the industrial and technological developments that have created many of the global problems mentioned, humanity would not have been able to gain the astrophysical information just cited. But have we gained this knowledge at the cost of our continued existence on earth? Or can people use this information to decide now to set right the balance on earth which humankind has disrupted so severely?

[9] See Part 3.3, for in-depth discussions of this term with numerous examples from the Qur'an and citations from other Muslim voices.

[10] Bakar, *Environmental Wisdom*, p. 56.

[11] Özdemir, 'Environmental Ethics', p. 9. For a detailed discussion of God's unity see Part 2b.iv.

[12] Due to the syntax, an alternative reading of this phrase might be: 'with the night He veils the day'. Most translators opt for 'the night' as the direct object of the verb.

[13] Bakar, *Environmental Wisdom*, pp. 80–81.

[14] David Tilman, 'Extinction, climate change and the ecology of homo sapiens', *Journal of Ecology* 110, April (British Ecological Society, 2022), p. 745, Section 2, paragraph 1.

[15] See John P Rafferty, 'Anthropocene Epoch: Geochronology', *Encyclopaedia Britannica*, (https://www.britannica.com/science/Anthropocene-Epoch), where Rafferty notes that increasing numbers of scientists date the start of the Anthropocene to 1950. Some environmentalists would place the date at 1800, because of the industrial revolution and its impact (Khalid, *Signs on the Earth*, p. 159).

[16] Fazlun M. Khalid, 'Applying Islamic Environmental Ethics', in *Environmentalism in the Muslim World*, edited by Richard Foltz (New York: Nova Science, 2005), p. 94.

[17] Alvin Toffler, *Future Shock*, in Fazlun Khalid, 'Applying Islamic Environmental Ethics', in *Environmentalism in the Muslim World*, edited by Richard Foltz (New York: Nova Science, [1971] 2005), p. 97.

[18] It seems as though, engrossed in scientific and related advances, a rather basic natural process was overlooked, namely, that growth, if allowed to, reaches an optimal state – which, in healthy circumstances happens also to be a point of perfect balance – but beyond that optimal point of balance there is inevitably degradation. This process is observable in many natural things. The point is also applicable to industrial, technological and economic growth when viewed wholistically, in other words, taking into account all factors including moral, physical, environmental, and ecological. When industrial growth – which utilises and affects these different elements – tips over the optimal (i.e., over the point when all factors are in healthy balance), the result is exactly the kind of crisis that is unfolding.

[19] 'Key measures such as greenhouse gas concentrations, sea levels and ocean heat reached record highs last year, according to an international review of the world's climate'; Saphora Smith, 'World say record-high greenhouse gases, sea levels and ocean heat in 2021, report finds', *The Independent*, 31 August 2021, https://www.independent.co.uk/climate-change/news/state-of-the-climate-report-record-high-sea-levels-b2156853.html.

[20] The Russian Arctic is producing meltwater equivalent to nearly five million Olympic-sized swimming pools a year; see Eleanor Sly, 'Russian Arctic losing billions of tons of ice due to climate change', *The Independent*, 3 August 2021, https://www.independent.co.uk/climate-change/russian-arctic-ice-climate-change-b1895913.html.

[21] 'By 2100, areas now home to 200 million people could fall permanently below the high-tide line'; Climate Central, 'Future: Global vulnerability to sea level rise worse than previously understood', Surging Seas, https://sealevel.climatecentral.org/research/reports/flooded-future-global-vulnerability-to-sea-level-rise-worse-than-previously/.

[22] Victoria Milko and Julie Watson, 'UN: Climate change to uproot millions, especially in Asia', AP News, 3 March 2022, https://apnews.com/article/climate-science-asia-indonesia-united-nations-fe0ae4d5e210a3f390ad2a7a3b798d02.

[23] 'Why Pakistan is at "ground zero" of the climate crisis after suffering deadly flooding', Sky News, 29 August 2022, https://news.sky.com/story/why-pakistan-is-at-ground-zero-of-the-climate-crisis-after-suffering-deadly-flooding-12684458; Emily Beament, 'World must help Pakistan after its "climate catastrophe" – UN secretary general', Evening Standard, 30 August 2022, https://www.standard.co.uk/news/environment/antonio-guterres-pakistan-world-boris-johnson-prime-minister-b1021763.html.

[24] United Nations Environment Programme, 'Let's Not Even the Odds', Faith for Earth, 30 August 2022, https://wedocs.unep.org/handle/20.500.11822/40537.

[25] 'World Religious Leaders and Scientists Make pre-COP26 Appeal', *United Nations: Climate Change*, 5 October 2021, https://unfccc.int/news/world-religious-leaders-and-scientists-make-pre-cop26-appeal.

[26] In the Qur'an, the phrase 'what their/your hands have acquired/earned' (*mā kasabat aydīhim/aydīkum*) is used to refer to what people have done and the consequences of that. On 30:41 see also Part 3.2.

[27] Khalid, *Signs on the Earth: Islam,* p. 143.

[28] Tilman, 'Ecology of Homo Sapiens', *Journal of Ecology* 110, April (2022), p. 749, Section 6, paragraph 2.

[29] From the Muslim faith perspective, human invention is firstly, an expression of the quality of creativity God placed in humankind, and secondly, a discovery of how different elements of God's creation work and relate to each other.

[30] Romano Guardini, *Das Ende der Neuzeit*, 63 (*The End of the Modern World*, 55), cited in LS 115, p. 86.

[31] It is not the intention of this study to provide a literature review of faith-based eco-environmental works by Muslim scholars. Nonetheless, attention is drawn to some key writings in English. For example, see: Seyyed Hossein Nasr, *Man and Nature: The Spiritual Crisis in Modern Man* (London: Unwin, [1968], 1990), and his *Religion and the Order of Nature* (Oxford: Oxford University Press, 1996); Fazlun M. Khalid, *Signs on the Earth: Islam, Modernity and the Climate Crisis* (Markfield: Kube Publishing Ltd, 2019); Osman Bakar, *Environmental Wisdom for Planet Earth: The Islamic Heritage*, Revised second edition (Kuala Lumpur: University of Malaya | Islamic Book Trust, 2022); Ibrahim Özdemir, *The Ethical Dimension of Human Attitudes Towards Nature: A Muslim Perspective*, 2nd ed. (Istanbul: Insan Publications, 2008).

[32] Seyyed Hossein Nasr is Professor Emeritus of Islamic Studies at George Washington University and a prolific, influential author.

[33] Bakar, *Environmental Wisdom,* p. 63 fn 3.

[34] Seyyed Hossein Nasr, *Religion and the Order of Nature* (Oxford: Oxford University Press, 1996).

[35] Bakar's book, first published in 2007, presented Islamic ecological and environmental thought at a time when it was still hardly subject to contemporary study. Statedly in line with Nasr's perspective, Bakar also emphasises the spiritual aspects of Islamic eco-environmental wisdom, looking at the metaphysical as well as the philosophical and scientific heritage. In the first chapter, Bakar provides a comparative analysis of the development of eco-environmental consciousness in 'the modern West' and in traditional Islamic civilisation, highlighting the close relationship, in Islamic civilisation historically, between eco-environmental consciousness and the development of science and technology – unlike in the history of the west. His second chapter, following on Nasr's *Man and Nature*, calls again for global ecological and environmental dialogues between the world's religious and spiritual traditions, and among all countries; and for the application of spiritual principles to contemporary environmental problems; and locates the Islamic legacy as part of humanity's heritage. The revised 2022 edition includes a new chapter on 'planet Earth' as humankind's only home and provides a Qur'anic basis for this.

[36] Bakar, *Environmental Wisdom*, p. 64. Bakar notes (p. 64) that there are many commonalities between the works of Nasr and *Laudato Si'* and since the current climate and ecological crisis is more than an economic, scientific and technological issue, the works of Nasr and *Laudato Si'* remain 'ever relevant to the search for real solutions to the crisis'.

[37] Bakar, *Environmental Wisdom*, pp. x–xi.

[38] Bakar, *Environmental Wisdom*, p. 67, fn. 5.

[39] Bakar, *Environmental Wisdom*, p. 69.

[40] Bakar, *Environmental Wisdom*, pp. 66–68; 71.

[41] Bakar, *Environmental Wisdom*, p. 69.

[42] Bakar, *Environmental Wisdom*, p. 70. Cf. LS 118 which refers to 'a constant schizophrenia wherein a technocracy which sees no intrinsic value in lesser beings coexists with the other extreme which sees no special value in human beings'.

[43] Bakar, *Environmental Wisdom*, pp. 70–71.

[44] Ibrahim Özdemir is Professor of Philosophy and Head of the Department of Philosphy at Uskudar University, Turkey.

[45] Özdemir, 'Environmental Ethics,' p. 4.

[46] Özdemir, 'Environmental Ethics', p. 4.

[47] Özdemir cited in Fazlun Khalid's review of his book; see, Khalid, 'Review of Özdemir, Ibrahim, *The Ethical Dimension of Human Attitude towards Nature: A Muslim Perspective*', *Journal of Islamic Studies* 22, May (2011), p. 303.

[48] Özdemir, 'Environmental Ethics', p. 5.

[49] Özdemir, 'Environmental Ethics', p. 5.

[50] Özdemir, 'Environmental Ethics', pp. 10–11.

[51] Özdemir, 'Environmental Ethics', p. 9. It is interesting to note the use of the same word 'reality' in both Özdemir's quote and in LS 117: 'Once the human being declares independence from reality and behaves with absolute dominion, the very foundations of our life begin to crumble.' The divine name *al-Ḥaqq*, ('the Truth'/'the Real') has historically been of key significance for the Sufis; for instance, in the exegetical comments ascribed by the Sufis to Jaʿfar al-Ṣādiq, *al-Ḥaqq* was used as *the* reference to God. For the Qur'anic use of the word *ḥaqq* as 'truth', 'the true', 'the real', see Badawi and Haleem, *Qur'anic Usage*, p. 225 entry numbers I:5, I:7; II:1, II:2. See also Lane, *Lexicon*, vol. 2, pp. 607– 608.

[52] Özdemir, 'Environmental Ethics', p. 16.

[53] Özdemir, 'Environmental Ethics', pp. 17–18.

[54] Özdemir, 'Environmental Ethics', p. 19.

[55] In the 1980s, Khalid founded the Islamic Foundation for Ecology and Environmental Sciences (IFEES); https://www.ifees.org.uk/.

[56] Khalid, *Signs on the Earth*, p. 128.

[57] Khalid, *Signs on the Earth*, p. 163.

[58] Khalid, *Signs on the Earth*, p. 191.

[59] See for example, Khalid, *Signs on the Earth*, pp. 22–32; 133–136; and 192–196.

[60] Khalid, *Signs on the Earth*, pp. 192–196.

[61] Khalid, *Signs on the Earth*, p. 170.

[62] Khalid, *Signs on the Earth*, p. 181.

[63] Khalid, *Signs on the Earth*, p. 196.

[64] Khalid, *Signs on the Earth*, p. 105.

[65] Khalid, *Signs on the Earth*, p. 82.

[66] Khalid, *Signs on the Earth*, pp. 149–150.

[67] This is relatable to LS 2 where Pope Francis describes the earth as 'among the most maltreated of our poor'.

[68] 'We now see the world as a resource to be exploited. We once took from it for our survival, but now we exploit it for our pleasure and aggrandizement'; Khalid, *Signs on the Earth*, p. 153.

[69] My discussion of the principles enshrined in the Islamic divine designations and other Qur'anic ethical guidance falls into this category.

[70] Khalid, *Signs on the Earth*, pp. 163–173.

[71] Khalid, *Signs on the Earth*, p. 173.

[72] Khalid, *Signs on the Earth*, pp. 174–175.

[73] These include moral responsibilities: care for and conservation of the planet, the environment, the diverse life-forms on earth and land, air, water and energy; inclusion of both the physical and the spiritual needs of communities in financial practices; and to ensure health, justice and harmony, including the recognition and promotion of the role of women in sustainability; recognition of the impact of development on religious belief; and conversely for faith communities to endorse the value of scientific information as well as indigenous wisdom; and for faith communities to participate in positive environmental action; Khalid, *Signs on the Earth*, p. 198.

[74] Khalid, *Signs on the Earth*, pp. 199–200.

[75] Khalid, *Signs on the Earth*, pp. 200–201.

[76] Khalid, *Signs on the Earth*, p. 15.

[77] Özdemir, 'Environmental,' p. 10.

[78] Özdemir, '*Environmental Ethics*', pp. 4–5. Cf. LS 4 and Part 3.2.

[79] 'We have thought and talked our way out of the natural world, and having made nature 'the other'… we have reduced the natural world to a mere resource that we plunder and pillage at will.' Khalid, *Signs on the Earth*, p. 65.

[80] More on this in the section on Climate Justice.

[81] Frequently, these are expressions of the quality of power, unqualified by any aspect of mercy, justice or understanding, coupled with greed.

[82] Describing the 'low level of political will to halt global greenhouse gas emissions' as catastrophic, Harry Cockburn of *The Independent*, described Attenborough's latest Frozen Planet II series as potentially becoming the 'snuff videos of a civilisation documenting the horrific extermination of life at its own hands'; Harry Cockburn, 'Frozen Planet 11: Human heartlessness takes starring role in new David Attenborough series', *The Independent*, 11 September 2022, https://www.independent.co.uk/climate-change/news/frozen-planet-david-attenborough-bbc-b2163369.html.

[83] A Qur'anic discussion of these key concepts is provided in Part 2b.iii.

[84] *Querida Amazonia*, 'Post-Synodal Apostolic Exhortation of the Holy Father Francis', paragraph 14, at https://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19651118_dei-verbum_en.html.

[85] New documentation presented by the BBC 2 in July–August of 2022, shows how American oil industries manipulated data (for example, by over-highlighting job losses and rising costs rather than climate science) to protect their interests; their actions contributed to a decade of delay on American action to cut gas emissions; see BBC 2 documentary, 'Big Oil v The World', aired on 21st July, 28th July, and 4th August 2022.

[86] See Climate Justice Alliance, 'Carbon Capture and Storage', *GeoEngineering 101*, 2020, p. 3; https://climatejusticealliance.org/wp-content/uploads/2020/11/Carbon-Capture-v4.pdf.

[87] Tom Goldtooth in 'Pricing the Planet', *Al-Jazeera*, Episode 2, aired on 12 May 2022.

[88] *Al-Jazeera*, 'Pricing the Planet', Episode 2, aired on 12 May 2022.

[89] For a full translation of Q. 49:13, see Part 3.3.ii (Humanity itself as a sign of God).

[90] See Badawi and Haleem, *Qur'anic Usage*, p. 614.

[91] Osman Bakar, 'Cultural Symbiosis and the Role Of Religion in the Contemporary World: An Islamic Perspective', *A Voyage into the Realm of the Intellect*, paragraphs 20–22, https://obbakar.wordpress.com/articles/in-journals/cultural-symbiosis-and-the-role-of-religion-in-the-contemporary-world/.

[92] Cf. LS 39 on loss of bio-diversity in monoculture tree plantations; and LS 48–52 on global inequality.

[93] *Al-Jazeera*, 'Pricing the Planet', Episode 2, aired on 12 May 2022. Related to this, a study on tropical savannas questions the assumption that forest-based carbon mitigation programmes also enhance species diversity; rather this study found that 'the increase in tree biomass over the vegetation gradient was accompanied by decreases in the richness of both plant and ant species, with particularly large losses in savanna species'. See Rodolfo C. R. Abreu, William A. Hoffmann, Heraldo L. Vasconcelos, Natashi A. Pilon, Davi R. Rossatto and Giselda Durigan, 'The biodiversity cost of carbon sequestration in tropical savanna', *Science Advances* 3, no. 8 (2017), DOI: 10.1126/sciadv.1701284; accessed 1 July 2022. See also, David Whitehead, 'Forests as carbon sinks – benefits and consequences', *Tree Physiology* 31, Sept (2011), pp. 893–902; https://academic.oup.com/treephys/article/31/9/893/1676008.

[94] Vandhana Sukhdev in *Al-Jazeera*'s, 'Pricing the Planet', Episode 2, aired on 12 May 2022.

[95] 'The Dark Side of Green Energy', viewed when aired on *Al-Jazeera*, 23 April 2021. See also Jaya Nayar, 'Not So "Green" Technology: The Complicated Legacy of Rare Earth Mining', *Harvard International Review*, 12 August 2021, https://hir.harvard.edu/not-so-green-technology-the-complicated-legacy-of-rare-earth-mining/.

[96] 'Lithium mining: What you should know about the contentious issue', *Volkswagen*, https://www.volkswagenag.com/en/news/stories/2020/03/lithium-mining-what-you-should-know-about-the-contentious-issue.html.

[97] 'The Dark Side of Green Energy', *Al-Jazeera*, viewed when aired on 23 April 2021.

[98] Tilman, 'Ecology of Homo Sapiens', *Journal of Ecology* 110, April (2022), p. 749, Section 6 paragraph 2.

[99] Khalid, 'Islamic Environmental Ethics', p. 88.

[100] Mohammed Saidul Islam, 'Old Philosophy, New Movement: The Rise of the Islamic Ecological Paradigm in the Discourse of Environmentalism', *Nature and Culture* 7 no. 1 (Berghahn Books, 2012), p. 75. This article traces the rise of the 'Islamic Ecological Paradigm' and Muslim environmental action in the United States and around the world.

[101] Farhana Yamin, 'How We're Going to Solve Climate Change' [video], *YouTube*, 9 Dec 2021 (TEDxKingsCross, 2021), https://www.youtube.com/watch?v=TUqQCFHQ7YY.

[102] Yamin, 'How We're Going to Solve Climate Change'.

[103] Yamin, 'How We're Going to Solve Climate Change'. Fazlun Khalid also notes 'a sense that racism, poverty, debt and environmental degradation had common origins'; see Khalid, 'Islamic Environmental Ethics', p. 87.

[104] See also the following section and Part 3.4.i for Qur'anic verses on human accountability.

[105] Özdemir, 'Environmental Ethics', p. 7.

[106] Bakar, *Environmental Wisdom*, p. 80.

[107] See the discussion of the Qur'anic principles of moderation, justice, balance and uprightness in Part 2b.iii.

[108] This topic is addressed in part 3.4.iii, on *Humankind as deputies, successors and stewards on earth*.

[109] Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', pp. 243–244. Cf. Bakar, *Environmental Wisdom*, pp. 79–80, where Bakar points out the Islamic view of the positive impact of spiritual humans for all life-forms on earth, including that if humans are spiritually-minded that means other life-forms too will be saved from destruction by humans.

[110] Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', pp. 244.

[111] Souleymane Bachir Diagne, 'We, the servant tenants of Earth', *The UNESCO Courier* 2018-2, https://en.unesco.org/courier/2018-2/we-servants-and-tenants-earth.

[112] Diagne, 'Servant tenants', paragraph 6.

[113] Diagne, 'Servant tenants', paragraph 6.

[114] Diagne, 'Servant tenants', paragraph 7.

[115] Diagne, 'Servant tenants', paragraph 2.

[116] Mary Robinson, 'Climate Justice: Challenge and Opportunity', *Irish Studies in International Affairs* 22 (Royal Irish Academy, 2021), p. 68.

[117] United Nations, Climate Justice, *Sustainable Development Goals*, 31 May 2019, paragraph 4, https://www.un.org/sustainabledevelopment/blog/2019/05/climate-justice/.

[118] United Nations, Climate Justice, *Sustainable Development Goals*, paragraph 5.

[119] United Nations, Climate Justice, *Sustainable Development Goals*, paragraph 5.

[120] António Guterres, 'The climate strikers should inspire us all to act at the next UN summit', *The Guardian*, 15 March 2019, paragraph 3, https://www.theguardian.com/commentisfree/2019/mar/15/climate-strikers-urgency-un-summit-world-leaders

[121] One more point on the prayer in 17:24, 'my Lord have mercy on them even as they nurtured me when I was little' – the Arabic verb used in this verse for 'nurtured me' (*rabbayānī*) is from the verbal root *r-b-b* from which also comes the word for 'lord', i.e., *rabb* as in *Rabb al-ʿālamīn*, 'Lord of the Worlds'. By using this verb with its verbal resonances, the Qur'anic verse subtly but strongly reminds us that God, Lord of the Worlds, nurtures us, and provides and cares for us as a good parent does for their children. It also reminds us that His is the ultimate position of power and authority, and we have to account for ourselves to Him.

[122] See Part 2b for Qur'anic principles of justice, equity and balance, and for more on the divine qualities (enshrined in the divine names) extended in the human being and as ecological virtues.

[123] Global North vs. Global South: The Climate Divide — Scientists Warning Europe – Inspiring science-based climate action

[124] The concept of 'common but differentiated responsibility and respective capabilities' was set forth in the UN Climate Convention and reaffirmed in the Paris Agreement; see 'Introduction to Climate Finance', *United Nations: Climate Change*, https://unfccc.int/topics/introduction-to-climate-finance.

[125] Robinson, 'Climate Justice', p.70.

[126] The verbal root *ẓ-l-m* denotes, 'oppression', 'injustice', 'to act wrongly', 'to cause suffering'; 'moral and physical darkness'; Badawi and Haleem, *Qur'anic Usage*, p. 585; Lane, *Lexicon*, vol. 5, p. 1920–1921.

[127] Q. 59:7 is translated and discussed in more detail in Part 3.6 on LS 9 and Qur'anic Altruism.

[128] David Tilman, 'Extinction, climate change and the ecology of Homo sapiens', *Journal of Ecology* 110, April (2022), p. 746.

[129] 'UN General Assembly takes on world in "great peril"', *Deutsche Welle*, 20 September 2022, https://www.dw.com/en/un-general-assembly-opens-as-antonio-guterres-warns-of-a-world-in-great-peril/a-63181265.

[130] Rosie Frost, 'Denmark becomes first country to pay for "loss and damage" from climate change', *Euronews*, 21 September 2022, https://www.euronews.com/green/2022/09/21/denmark-becomes-first-country-to-pay-for-loss-and-damage-from-climate-change.

[131] Patrick Greenfield et al., 'Barbados PM launches blistering attack on rich countries at COP27 climate talks', *The Guardian*, 7 November 2022, paragraphs 2, 3. https://www.theguardian.com/environment/2022/nov/07/barbados-pm-mia-mottley-launches-blistering-attack-on-rich-nations-at-cop27-climate-talks

[132] United Nations, 'Mia Mottley, Prime Minister of Barbados at the opening of COP 27 World Leaders Summit', [video], *YouTube,* 7 November 2022, minutes 5:11–5:21, (UN Climate Change), https://www.youtube.com/watch?v=5J0egwAfO0w

[133] Gandhi said 'An unjust law is itself a species of violence'; Mahatma Gandhi, *Non-Violence in Peace and War* (1962), cited in 'Mahatma Gandhi Quotes', Goodreads website; available at https://www.goodreads.com/author/quotes/5810891.Mahatma_Gandhi?page=5.

[134] See Cynthia Lucas Hewitt, 'One Capital Indivisible Under God: The IMF and Reparation for a Time of Globalized Wealth'*, American Behavioural Scientist*, 47 (7), 2004, pp. 1001–1027, https://doi.org/10.1177/0002764203261075.

[135] See Michael Franczak & Olúfémi O Táíwò, 'Here's how to repay developing nations for colonialism – and fight the climate crisis', *The Guardian*, 14 January 2022, paragraph 2, https://www.theguardian.com/commentisfree/2022/jan/14/heres-how-to-repay-developing-nations-for-colonialism-and-fight-the-climate-crisis.

[136] Franczak & O Táíwò, paragraph 9.

[137] Franczak & O Táíwò, paragraph 10.

[138] United Nations, 'Mia Mottley, Prime Minister of Barbados at the opening of COP 27 World Leaders Summit', minutes 11:58.

[139] The summarised information in this paragraph on the outcomes of COP 27 is derived from Natalia Alayza et al., 'COP 27: Key Takeaways and What's Next', World Resource Institute, 8 December 2022, sections 1–3, https://www.wri.org/insights/cop27-key-outcomes-un-climate-talks-sharm-el-sheikh.

[140] Alayza et al., 'COP 27: Key Takeaways and What's Next', introductory paragraph one.

[141] Alayza et al., 'COP 27: Key Takeaways and What's Next', introductory paragraph two.

[142] Alayza et al., 'COP 27: Key Takeaways and What's Next', section 2.

[143] For details see the full article by Alayza et al., 'COP 27: Key Takeaways and What's Next'.

[144] Alayza et al., 'COP 27: Key Takeaways and What's Next', section 3.

[145] Germany noticeably pledged to give grants, (Alayza et al., 'COP 27: Key Takeaways and What's Next', section 1).

[146] How We're Going to Solve Climate Change - Farhana Yamin | Farhana Yamin | TEDxKingsCross - YouTube.

[147] United Nations, 'Mia Mottley, Prime Minister of Barbados at the opening of COP 27 World Leaders Summit', minutes 12:15–12:16.

[148] For some details of environmental degradation and its impact see 'Effects of climate change', *Met Office*, https://www.metoffice.gov.uk/weather/climate-change/effects-of-climate-change.

[149] Iain Stewart, *Earth: The Power of the Planet* (BBC, 2007), aired on BBC 4, 3 November and 1st December, 2021.

[150] See Tara Conlan, 'Earth's demise could rid galaxy of meaning, warns Brian Cox ahead of COP26', The Guardian, 19 October 2021, https://www.theguardian.com/science/2021/oct/19/earths-demise-could-rid-galaxy-of-meaning-warns-brian-cox-ahead-of-cop26.

[151] LS 118: 'there can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate anthropology.'

[152] Fazlun Khalid, 'Applying Islamic Environmental Ethics' in *Environmentalism in the Muslim World*, edited by Richard Foltz (New York, Nova Science, 2005), p. 93.

[153] Özdemir, 'Environmental Ethics', p. 33, fn. 28.

[154] In Sufi terms: 'contentment with little' (*al-riḍā' bi'l-qalīl*).

[155] Fazlun Khalid, 'Islam and the Environment: Ethics and Practice, an Assessment', *Religion Compass* 4, no. 11 (2010), p. 709.

[156] Badawi and Haleem, *Qur'anic Usage*, p. 799.

[157] Lane, *Lexicon*, vol. 7, p. 2593.

[158] This could be a hyperbole for dying and being buried in graves.

[159] Lane, *Lexicon*, vol. 2, p. 830.

[160] See for example, Muḥammad ibn Yazīd ibn Mājah, *Sunan Ibn Mājah*, Book 12, *Ḥadīth* no. 5/2141; available at https://sunnah.com/ibnmajah/12.

[161] According to spiritual interpretations, Qur'anic verses such as Q. 18:31 which speaks of the 'golden bracelets', 'green brocaded silk garments' and 'couches' that the righteous shall have in heaven, should not be understood as referring to earthly gold, silk and furniture; rather they are to be understood as referring to divine qualities and names, granted to those who are qualified for them. For instance, the Qur'an exegete ʿAbd al-Razzāq al-Kāshānī (d. 1336), commenting on Q. 18:31, interprets the golden bracelets as 'entifications' of the divine self-disclosures, the green garments as 'resplendent, virtuous and radiant attributes', silk as 'states [of the soul] and bestowals', brocade as 'character traits' and the couches as 'the divine names' – for those who 'have assumed His attributes'; see, Feras Hamza (transl.), *Tafsīr al-Kāshānī* Part 1, p. 447. In other words, in keeping with such perspectives, the names of God, which are qualities and spiritual lights, are the very substance of souls, and of the heavenly realm, and they manifest there in different colours and forms. (See Part 1, endnote 13, for Jaʿfar al-Ṣādiq's equation of divine qualities with divine spiritual lights.)

[162] For instance, in France last summer, severe drought caused forest fires which could not be adequately tackled because the winds were changing direction all the time. The drought also meant that there wasn't enough water to extinguish the fires.

[163] As the issue of excess is highly pertinent to our debates, the question 'what is excess?' should perhaps be addressed in practical terms. Basically, excess is more than is needed; it is immoderate consumption or acquisition. The levels of excess vary. 'When does excess become immoderate?' is perhaps the question that is more applicable. And 'what is luxury?' It is over-abundance and indulgence in unnecessary excess. Again, levels of luxury are relative, with some 'luxuries' being innocuous and little beyond necessities. But with these two basic questions, everyone can begin to check how much relative excess/luxury we have in our lives, and what effect that might be having on others and on our planet; and whether we might perhaps cut back on some things. Needless to say, big company profits and bankers' bonuses, too, should be assessed in terms of what is excessive and immoderate.

[164] Khalid, *Signs on the Earth*, p. 174.

[165] The words *iʿtidāl, taʿādul* are not themselves found in the Qur'an, but the concept of moderation features time and again, as shown in this section.

[166] Mir, *Dictionary of Qur'anic Terms*, p. 114.

[167] Lane*, Lexicon*, vol. 5, p. 1974; Badawi and Haleem, *Qur'anic Usage*, p. 605.

[168] Lane*, Lexicon*, vol. 5, pp. 1972–1974.

[169] Lane*, Lexicon*, vol. 5, p. 1973.

[170] Lane, *Lexicon*, vol. 7, p. 2523. Badawi and Haleem, *Qur'anic Usage*, p. 756; Mir, *Dictionary of Qur'anic Terms*, p. 114.

[171] There are some fourteen Qur'anic verses promoting *'adl*, and another fifteen for *qisṭ*.

[172] Badawi and Haleem, *Qur'anic Usage*, p. 605.

[173] Lane*, Lexicon*, vol. 7, p. 2996; Badawi and Haleem, *Qur'anic Usage*, p. 784.

[174] Lane, *Lexicon*, vol. 7, p. 2995–2996; Badawi and Haleem, *Qur'anic Usage*, p. 782, ff.

[175] Badawi and Haleem, *Qur'anic Usage*, p. 786.

[176] Lane, *Lexicon*, vol. 7, p. 2995.

[177] Badawi and Haleem, *Qur'anic Usage*, p. 786.

[178] Bakar explains Ibn ʿArabī's interpretation of Q. 95:4–5, saying that these verses show that the human being 'is a hierarchical being, containing within himself various grades of being and levels of reality, stretching from the highest spiritual level to the lowest level, which is the physical'; Bakar, *Qur'anic Pictures*, p. 173. In his Qur'anic commentary, the Tunisian exegete, Muḥammad al-Ṭāhir Ibn ʿĀshūr (d. 1973) also interprets 'the best stature' of Q. 95:4 as relating to man's internal character, and, moreover, he explicitly links this 'best stature' to the human nature/character (*fiṭrah*); see Ibn ʿAshūr, *Tafsīr al-taḥrīr wa'l-tanwīr*, (30 vols) Tunis, Dār al-Tūnisīyah li'l-Nashr, 1984, vol. 30, p. 423). Among his interpretations of Q. 30:30 and of what constitutes the human nature (*fiṭrah*) (vol. 21, pp. 88–94), Ibn ʿAshūr relates the *fiṭrah* to humanity's innate knowledge of divine unity (*tawḥīd*) and to the human being's natural disposition and intellect (vol. 21, pp. 89–90).

[179] For balance as *mīzān* with regard to Q. 55:5–9, see Part 2a.i.

[180] The Christic teaching of doing unto others as you would have them do unto you reflects this semantic nexus too.

[181] Badawi and Haleem, *Qur'anic Usage*, p. 585–586. On *ẓ-l-m*, see also Part 2 endnote 126, and Part 3.5 on LS 7–8.

[182] On *kufr* see Badawi and Haleem, *Qur'anic Usage*, pp. 811.

[183] Badawi and Haleem, *Qur'anic Usage*, pp. 565–567.

[184] See the discussion of *takāthur*, earlier in this section.

[185] Özdemir also notes that 'Justice and balance are a universal law (of God), and that (as a result) humankind should conduct a just and balanced life'; Özdemir, 'Environmental Ethics', p. 13.

[186] Many things are nominally called Islamic, without actually being so. Conversely, many things are 'islamic' (with a small 'i') without being called so. It is the quality, not the labelling, that defines the actual reality.

[187] Bakar, *Environmental Wisdom*, p. 89.

[188] Bakar, *Environmental Wisdom*, p. 35.

[189] Bakar, *Environmental Wisdom*, p. 36.

[190] Osman Bakar, 'Coronavirus in the Light of Traditional Integral Ecology', *The Muslim 500: The World's 500 Most Influential Muslims,* 2022 ed. (Amman: The Royal Islamic Strategic Studies Centre, 2021), p. 210.

[191] Bakar, 'Traditional Integral Ecology', p. 213.

[192] Bakar, 'Traditional Integral Ecology', p. 213.

[193] Lane, *Lexicon*, vol. 8, p. 2927; Hans Wehr, p. 1055. While the word *tawḥīd* itself does not occur in the Qur'an, its verbal root *w-ḥ-d* is explained in Badawi and Haleem, *Qur'anic Usage*, p. 1015.

[194] Bakar, *Environmental Wisdom*, p. 23.

[195] Bakar, Environmental Wisdom, p. 25.

[196] Khalid, *Signs on the Earth*, pp. 163–164. Cf. LS 89, 'as part of the universe, called into being by one Father, all of us are linked by unseen bonds and together form a kind of universal family, a sublime communion which fills us with a sacred, affectionate and humble respect.'

[197] Found in Q. 16:22, among several other verses.

[198] Lane, *Lexicon*, vol. 8, pp. 2926–2928, especially pp. 2927–8; Badawi and Haleem, *Qur'anic Usage*, p. 1015.

[199] Lane, Lexicon, vol. 1, pp. 26–28 and Hans Wehr, Dictionary, p. 6.

[200] Lane, *Lexicon*, vol. 1, p. 26 (for *ʾ-ḥḥ-d*) and vol. 8, p. 2927 (*for w-ḥḥ-d*).

[201] Seyyed H. Nasr, et al., eds., *The Study Qur'an: A New Translation and Commentary* (HarperOne, 2015), pp. 5548–5549.

[202] See the comments of Jaʿfar al-Ṣādiq on Q. 112:1 in Farhana Mayer (transl.), *Spiritual Gems: the Mystical Qurʾān Commentary Ascribed to Jaʿfar al-Ṣādiq*, (Louisville: Fons Vitae, 2011), p. 196 and footnote 304.

[203] The nominative case of the verb 'to be' in Arabic does not express the present case (is, are) the same way English does.

[204] For example, see some of the translations at The Quranic Arabic Corpus - Translation.

[205] LS 233 is also the paragraph in which the 16th century Ṣūfī poet ʿAli al-Khawwāṣ is footnoted.

[206] The theme of multiplicity in unity and unity in multiplicity was much discussed by Muslim philosophers and mystics. Diversity in creation (the result of multiplicity manifesting in unity) is considered a sign of God and a blessing. Q. 35:27 lists diversity in plants and even in rock formation. Q. 30:22 points to the diversity of human languages and colours. Q. 49:13 also pointedly relates human diversity to mutual recognition of different peoples. See Part 3.3.i and ii for more on these verses and others like them.

[207] Mayer, *Spiritual Gems*, p. 196.

[208] Bakar, *Environmental Wisdom*, pp. 23, 24.

[209] Lala, *Knowing God*, p. 70. See the preceding discussion of Ibn ʿArabī in Part 1b.ii.

[210] This narration is commonly accepted among Sufis as one of the 'divine sayings' or *aḥādīth qudsīyah*. These are a group of utterances on the tongue of the Prophet which are believed to be divine sayings but are not part of the Qur'an; see Graham, 'Ḥadīth qudsī'. While exoteric Islam vacillates about the status and origin of this statement, it has permeated Sufi thought, and appears also in Islamic philosophy and theology. According to Moeen Afnani, its first documented appearance seems to have been in the work of ʿAbdullah al-Anṣārī (active 11th century). Some Sufis, such as the famous Najm al-Dīn Rāzī (d. c. 1256), held that this sacred utterance was a divine response to the Prophet David's question to God as to why He had made creation. See the much-needed study by Moeen Afnani, 'Unraveling the Mystery of The Hidden Treasure: The Origin and Development of a *Ḥadīth Qudsī* and its Application in Sūfī Doctrine', Doctoral Dissertation (advisor Hamid Algar) submitted to University of California, Berkeley, 2011, pp. 11–12. This Islamic Sacred Saying resonates with LS 86, 'The universe, as a whole, in all its manifold relationships, shows forth the inexhaustible riches of God.' This, in turn, brings to mind Q. 31:26–27 which also points to the inexhaustible richness of God beyond what is in the heavens and the earth: 'To God belongs what is in the heavens and the earth; indeed, God, He is the Rich/Independent (*al-Ghanī*), the Praiseworthy (*al-Ḥamīd*). And were the trees on earth pens

and the sea, increased by seven more seas, [the ink], the words of God would not be exhausted. Indeed, God is Mighty (ʿ*Azīz*), Wise (*Ḥakīm*)'.

[211] Osman Bakr, Lecture on 'One Universe, Many Worlds: Qur'anic Pictures of the Universe' [video], *YouTube*, 30 Oct 2021 (IIIT Online Classes, 2021) minutes 45–47, webinar available at https://www.youtube.com/watch?v=0QwUaU0z0NM&t=1076s. See Part 1b.ii for the same views enunciated by the past masters, al-Ghazālī and Ibn ʿArabī.

[212] Osman Bakar, Lecture on 'One Universe, Many Worlds: Qur'anic Pictures of the Universe', minutes 1:17–1:19. The professor describes the role of science as the study of the divine signatures.

[213] Mayer, *Spiritual Gems*, pp. lxiv-lxv, 102.

[214] Osman Bakar, Lecture on 'One Universe, Many Worlds: Qur'anic Pictures of the Universe', minutes 1:21. Q. 17:110 also indicates the name *al-Raḥmān* as comprehensive: 'Say: invoke *Allāh* or invoke *al-Raḥmān*, whichever you invoke to Him belong the names most beautiful'. For Ibn 'Arabī's view that *al-Raḥmān* encompasses all the other most beautiful names of God, see James W. Morris, 'The Spiritual Ascension', p. 646. See also the subsection on *Raḥmah* (mercy) in 2b.vi. The divine name *al-Jāmiʿ* ('the Comprehensive'; 'the One who brings together, who unites') also supports this aspect of divine amalgamation or union. The name *al-Muḥīṭ* ('the All-Encompassing') is pertinent too; see Part 2b.vi for Saadia Chishti's views on the relevance of this divine name to the environment.

[215] *Al-Ḥaqq* (meaning 'the Truth', 'the Real', 'Reality') is one of the cardinal Islamic divine names. See, Q. 6:62; 10:30, and especially 10:32 which states categorically, 'That is God, your Lord, the Truth/the Real'.

[216] See Part 3.3, for in-depth discussion of the key Qur'anic term 'signs' (*āyāt*) with numerous examples from the Qur'an.

[217] This is explained further in Parts 2b.v and vi.

[218] Bakar, *Environmental Wisdom*, p. 25.

[219] Cf. Q. 39:62, 'God is the creator of everything', and Q. 35:41, 'Verily, God holds the heavens and the earth, lest they come to an end'. The latter verse gave rise to the divine designation 'Holder of the heavens and the earth' (*Mumsik al-samāwāti wa'l-arḍ*), which underscores the idea that God keeps the balance in the universe, in this case through the laws of gravity which He has set in place.

[220] Q. 55:7–9.

[221] Cf. LS 86, which, in regard to the 'manifold relationships' in the universe, cites Saint Thomas Aquinas on how 'multiplicity and variety "come from the intention of the first agent [God]" who willed that "what was wanting to one [creature] in the representation of the divine goodness might be supplied by another [creature]" inasmuch as God's goodness "could not be represented fittingly by any one creature".'

[222] 'He (God) is the one who has made you deputies/stewards of the earth, and He has raised some of you above others by degrees, that He may test you in what He has given you; verily, your Lord is Swift in retribution (*Sarīʿu'l-ʿiqāb*) and indeed, He is All-Forgiving, Merciful.' This may be applied in two ways: 1) Humankind has been raised above all other creatures on earth in several ways, primarily through intellectual and physical dexterity; that, in itself, is a great test, to see how we use these gifts. 2) Some people are in positions of greater power or authority over others, or have greater wealth than others; again, the test lies in how people in such positions use their power, authority, wealth. Q. 6:165 and the subject of human stewardship are addressed further in Part 3.4.iii, (on LS, 6 and 9, section on 'Humankind as successors, deputies and stewards on earth').

[223] Cf. Özdemir, *Ethical Dimension*, pp. 168–169; Bakar, *Environmental Wisdom*, pp. 36–37.

[224] This can be related to the key Biblical commandment, 'You shall love the Lord your God with all your heart, and with all your soul, and with all your mind' (Matthew 22:37). Moreover, it does not take much interpretation to understand caring for creation as part of the second commandment to 'love your neighbour as yourself' (Matthew 22:39).

[225] These verses are discussed further in Part 3.4.ii which looks at the human being as comprised of spirit, character and will, and physical matter.

[226] Bakar, *Qur'anic Pictures*, p. 28.

[227] My doctoral research has a whole chapter dedicated to Q. 30:30, with special focus on the second clause (in which the term *fiṭrat* Allāh is found), and looks at some 17 Qur'anic commentaries spanning the 9th–20th centuries.

[228] *Fiṭrah,* as used in Q. 30.30, is defined as 'innate character, natural disposition (as willed by God)' in Arne A. Ambros & Stephan Procházka, *A Concise Dictionary of Koranic Arabic* (Wiesbaden: Reichert, 2004), p. 214. Mir (p. 76), also defines it as 'the "natural disposition" of man… essentially good', and 'roughly equivalent to "human nature"'. Lane (vol. 6, p. 2416) notes several traditional interpretations of *fiṭrah* including: 'creation', 'natural constitution with which a child is created in his mother's womb', 'nature', 'natural, native,

innate, original disposition', 'temper or other quality or property', 'the faculty of knowing God with which He has created mankind', 'the religion of *Islām*', 'the covenant received from Adam and his posterity'.

[229] For example, see Muḥammad b. Jarīr, al-Ṭabarī, *Jāmiʿ al-bayān ʿan taʾwīl āy al-qurʾān*, ed. ʿAbd Allāh al-Turkī, Riyāḍ: Dār ʿĀlam al-Kutub, 2003, vol. 18, pp. 493–494.

[230] See Maḥmūd b. ʿUmar al-Zamakhsharī, *al-Kashshāf ʿan ḥaqāʾiq ghawāmiḍ al-tanzīl wa ʿuyūn al-aqāwīl fī wujūh al-taʾwīl*, vol. 3, p. 479, where the exegete comments pithily that 'the *fiṭrah* is *al-khilqah*'. As well as 'creation', 'constitution', and 'original', *al-khilqah* is defined, in the traditional sources cited in Lane (vol. 2, p. 801), as a synonym of *fiṭrah* and *khuluq,* which signifies a person's innate ethical character.

[231] See for example Nasr et al., *The Study Qur'an*, p. 991.

[232] Badawi and Haleem, *Qur'anic Usage*, p. 717.

[233] Khalid, *Signs on the Earth*, p. 154.

[234] Saadia K. Khan Chishti, '*Fiṭrah*: An Islamic Model for Humans and the Environment', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge MA: Harvard University Press, 2003), p. 77.

[235] Chishti, '*Fiṭrah*', pp. 76–80. Chishti emphasises her understanding of the societal and ecological ramifications of the *fiṭrah*, relating this to the *sharīʿah*.

[236] This is also suggested by Q. 95:4, 'Indeed We [God] created the human in the best stature/most beautiful balance' (*la-qad khalaqnā 'l-insāna fī aḥsani taqwīm*), discussed in 2b.iii.

[237] Medieval Arabic use of pronouns is infamous for ambiguity. In this case the ambiguity does not detract from the point being made but in fact underscores it.

[238] Muḥyī'l-Dīn Muḥammad b. ʿAlī ibn ʿArabī, *al-Juz al-awwal [li-rābiʿ] min kitāb al-Futūḥāt al-Makkīyah*, 4 vols., (Istanbul: Dār al-Ṭibāʿah, 1876), vol. III, p. 587.

[239] See Part 2b.iv.

[240] Cf. LS 115 which includes a quotation from Pope John Paul II's encyclical epistle *Centesimus Annus*, 'Man too is God's gift to man. He must therefore respect the natural and moral structure with which he has been endowed'; cited in LS p. 86.

[241] Bakar, *Qur'anic Pictures*, p. 133.

[242] As noted earlier in Part 1b.i, the Qur'anic term is *wajh Allāh.* The word *wajh* literally means 'face' or 'countenance', but also implies 'being'; see Badawi and Haleem, *Qur'anic Usage*, p. 1014.

[243] Özdemir, 'Environmental Ethics', p. 12.

[244] Toshihiko Izutsu, 'Ethico-Religious Concepts in the Qur'an', in Jakub Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', *Archiv Orientální* 88, no. 2 (Prague, 2020), p. 232.

[245] Qur'anic exhortations to virtue are often addressed to the Prophet. Since the Prophet is 'a beautiful example' (*uswatun ḥasanah*; Q. 33:21) for his followers, it may reasonably be inferred that the exhortations in question apply to all who follow him. In his Qur'an commentary, Zamakhsharī (*al-Kashshāf*, vol. 3, p. 479) states '(what is) addressed to the prophet is addressed to his community'.

[246] In Q. 2:225, 235, 263; Q. 3:155; Q. 4:12; Q. 5:101; Q. 22:59; Q. 33:51; Q. 64:17; see ʿAbd al-Bāqī, pp. 216–217.

[247] Albeit in this verse the Prophet Shuʿayb's people were using the term sarcastically.

[248] The word *barr* denotes being kind, righteous, just, dutiful (see Lane, *Lexicon*, vol. 1, p. 176; Badawi and Haleem, *Qur'anic Usage*, pp. 86–87); I feel the word 'Righteous' best encapsulates these qualities.

[249] In Q.3:193, 198; Q. 76:5; Q. 82:13; Q. 83:18, 22.

[250] For a full translation of Q. 2:177, see Part 3.6 (on LS 9 and Qur'anic altruism).

[251] Bakar, *Environmental Wisdom*, p. 81. The opposite of *tawḥīd*, Bakar notes, is *shirk* (i.e., associating partners with God).

[252] Jaʿfar al-Ṣādiq refers to the soul's enlivenment through being 'in harmony with God' (*muwāfaqah bi'Llāh*) or its deadening/darkening through being 'in opposition' (*mukhālafah*). Mayer, *Spiritual Gems*, pp. xxxvi–xxxviii; p. 134, fn. 219.

[253] This is particularly plausible because the humane values that underpin these discourses have a strong potential for compatibility with the divine designations.

[254] Ibrahim Özdemir, 'A Common Care for Creation: Said Nursi and Pope Francis on Environment', *International Journal of the Asian Philosophical Association* 13 (1), (January 2020), p. 99. Available at http://www.asianpa.net/assets/upload/discussions/zEV47hBzmlLRgfok.pdf. Accessed 14 February, 2023.

[255] Özdemir, 'Common Care', p. 104.

[256] See Part 2b.iv.

[257] *Inter alia*, this is why suicide is forbidden in Islam. As the common dictum goes, life is sacred; literally.

[258] Bakar's translation.

[259] Bakar, *Environmental Wisdom*, p. 56.

[260] Bakar, *Environmental Wisdom*, pp. 81–82. The translations provided in this paragraph are those of Bakar.

[261] Saadia K. Khan Chishti, '*Fiṭrah*: An Islamic Model for Humans and the Environment', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge MA: Harvard University Press, 2003), pp. 73–74.

[262] Chishti, *Fiṭrah*, p. 73. Attention is drawn to her description of creation being permeated by God's attributes.

[263] Bakar, *Qur'anic Pictures*, pp. 44–49.

[264] Since we would all like to be treated mercifully, the Biblical guidance that whatever you want others to do to you, you also should do to them (see Matthew, 7.12), is a call to be merciful through being just and equitable, treating others as you would like to be treated if you were in their shoes.

[265] Discussed in Part 2a.ii, section on climate justice.

[266] As noted in Part 1b.ii/Confirmation and Counterpoise**,** the restorative and balancing act of bringing in more goodness where it is lacking, is part of the energy of this divine name.

[267] It might be said that this is an ecological version of St Francis' prayer, 'Lord, make me an instrument of your peace… where there is despair, [let me sow] hope'; for the full prayer see the 'Peace Prayer of St Francis', The Franciscan Archive, https://franciscan-archive.org/index2.html.

[268] Consciously aligning oneself and one's conduct with the divine names is spiritually empowering, which inevitably has a positive impact on our action in the physical world. As Osman Bakar notes: 'In the eyes of Islam, a sense of responsibility towards nature that springs from spiritual motives is of a higher quality and will prove to be more durable and also more efficacious than one that is purely dictated by worldly considerations of environmental protection'; Bakar, *Environmental Wisdom*, pp. 53–54.

[269] My translation of this name combines the nuances of 'rectitude', 'discernment', and 'directing/guiding to the right way', which are all contained in verbal root *r-sh-d* and are all implied in the divine name; (Lane, *Lexicon*, vol. 3, p. 1089 and Hans Wehr, *Dictionary*, p. 341).

[270] Q. 6:12: '(God) inscribed mercy upon Himself' (*kataba ʿalā nafsi'l-raḥmah*). See Part 1b.ii, sub-section on *Raḥmah* (mercy) and the end of Part 3.5 on LS 7–8.

[271] Words spoken by Sayyidnā Īsā al-Masīḥ (Jesus Christ) ﷺ to Julian of Norwich in visionary revelations to her; see Julian of Norwich, *Revelations of Divine Love*, translated by Grace Warrack (Grand Rapids, MI: Christian Classics Ethereal Library, [1901] 2002), 'The Thirteenth Revelation', Chapter 27, pp. 55, 56; http://www.ccel.org/ccel/julian/revelations.html.

Part 3

Qur'anic Resonances in Pope Francis' Introduction to Laudato Si' (LS 1–11)

Part 3: Qur'anic Resonances in Pope Francis' Introduction to Laudato Si' (LS 1–11)

1) LS 1–2 St Francis' Canticle and The Opening of the Qur'an

Pope Francis opens his epistle *On Care for our Common Home* with citations from the 'Canticle of Creatures' of his papal namesake, St Francis (d. circa 1226). The canticle is commonly considered to have been composed at different times of the saint's life, with three main temporal divisions.[1] The original composition constitutes the majority of the hymn up to the section on 'pardon and peace'. The five or so lines on the latter were later added by St Francis, on an occasion when he helped to resolve a dispute between the bishop and the mayor/chief magistrate of Assisi. The final section, on 'Sister Death', was written by the saint as his own death approached.

Readers familiar with the history of the Qur'an will at once notice the similarities (albeit on a considerably smaller scale)[2] with how the Qur'an was revealed at different periods of the Prophet Muḥammad's life ﷺ, and how numerous Qur'anic revelations were occasioned by an event in the life of the Prophet (d. 632).[3] Moreover, looking at the structure and wording of the canticle, one is immediately struck by the resemblance to a number of Qur'anic passages, not least the first chapter of the Qur'an (entitled *al-Fātiḥah*, 'The Opening'). In particular, the words of praise to God, at the start and end of the canticle, are strongly reminiscent of the first three verses of The Opening. It is worth citing Q. 1 in full and the relevant sections of the canticle here.

> Q. 1–7:
>
> 1:1'In the Name of God, the All-Gracious, the Merciful. 1:2Praise to God, Lord of the Worlds! 1:3The All-Gracious, the Merciful; 1:4Sovereign of the Day of Judgement. 1:5It is You we worship and it is in You we seek help. 1:6Guide us upon the straight way;[4] 1:7the way of those whom You have blessed, not those upon whom is anger,[5] nor those who go astray.'
>
> St Francis' Canticle:[6]
>
> 'Most High, all-powerful, good Lord! Yours are the praises, the glory, and the honour and all blessing. To You alone, Most High, do they belong… Praised be You, my Lord, with all Your creatures… Blessed those who endure in peace… Woe to those who die in mortal sin… Blessed are those whom death will find in Your most holy will… Praise and bless my Lord and give Him thanks, and serve Him with great humility.'

The title of Pope Francis' encyclical takes the first two words of the canticle's phrase *Laudato Si' mi Signore*, meaning, 'Praise be to You, my Lord'. This powerful opening clause, found in full at the start of LS 1, is reflected in the full-title of this study, namely in the Qur'anic phrase, '*Al-ḥamduli'Llāhi*

Rabbi'l-ʿālamīn', which means, 'Praise to God, Lord of the Worlds' (Q. 1:2). *Al-ḥamduli'Llāh* ('Praise (be) to God') is one of the most commonly uttered Qur'anic formulations of praise and thanks. The word *ʿālamīn* (sing. *ʿālam*), here rendered as 'Worlds', has the following meanings: 'world', 'universe', 'cosmos', 'that by which God is known', and 'inhabitants of the world'.[7] In reciting this single verse then (Q. 1:2), a person praises God, acknowledging Him as the Lord and Nurturer[8] of the whole 'cosmos', and at the same time recognises the 'universe' and 'all the inhabitants of the world' as 'that by which God is known' or, in other words, His signs. Through this phrase too, a person implicitly identifies with all the rest of creation, as part of that creation, and voicing God's praise within His creation. Q. 1:2 encapsulates appreciation of God and of His creation, and our communion with the whole of this creation – themes that are echoed in the life of St Francis and in Pope Francis' encyclical.[9]

The canticle's proclamation of God as 'Most High, all-powerful, good', echo Q. 1:1, 1:3 and 1:4 which invoke God by His comprehensive name *Allāh*, His names of graciousness and mercy, and His title of 'Sovereign of the Day of Judgement'. St Francis' invocation of blessings on 'those who endure in peace' and 'those whom death will find in Your most holy will', as well as his warning 'woe to those who die in mortal sin', are comparable to Q. 1:7. Q. 1:5–6 show humanity's need for God's help and guidance, and Q. 1:4 has already reminded us of human accountability to God hereafter. The whole of Chapter 1 of the Qur'an is recited at least seventeen times a day as part of the Muslim canonical prayers; and Q. 1:2 is used, either in full or in shorter form, as an exclamation of gratitude countless other times outside of the prayers. Each recitation of these verses is an opportunity to remember God, the significance of His creation, and our role on earth – themes which will be unpacked in more detail in the following sections of this Part.

The verses of the canticle cited above resonate particularly with the first chapter of the Qur'an. Other verses of the canticle that refer to the natural elements have resonances with verses from other Qur'anic chapters. For instance, LS 1 cites the canticle's verse that refers to 'our sister Mother Earth who sustains and governs us and who produces various fruits with coloured flowers and herbs'. This tender appreciation of the earth and her beneficial produce for humanity is also found in the Qur'an. For example, Q. 55:10–13 relates: 'The earth, He (God) set it down for (all its) beings. In it there are fruits and the spathed date-palms; and husked corn and aromatic herbs.' Of note in these verses, is that God has laid out the earth for the benefit of all creatures, not just humankind. And while humans are the ones who most eat fruit, corn, and herbs, other animals also consume wild fruit. In addition to the colours found among fruit, God's creative power is indicated in the variety of colours in the desert mountains of the earth, as noted in Q. 35:27: 'Do you not see that God sends down water from the sky and We bring forth with it fruits of different colours? And among the mountains are hard tracts, white, red, of different hues, and strikingly black.' Moreover, in numerous other verses the

Qur'an speaks of the earth as a divine sign, or containing divine signs,[10] and points out God's grace and power in reviving the dead earth with water[11] which He sends down and with which He brings forth from the earth grain, date-palms, vines, and fruit, for the benefit of humanity.[12] Thus the earth, rain, fruit and grain, rivers, and mountains, are all appreciated as God's handiwork, and as blessings for the creatures on earth.

In LS 2, Pope Francis notes that people have 'come to see ourselves as (the earth's) lords and masters, entitled to plunder her at will'. The Qur'an repeatedly affirms God, not humanity, as 'Lord of the heavens and the earth' (*Rabb al-samāwāti wa'l-arḍ*),[13] just as God is 'Lord of Humanity' (*Rabb al-nās*).[14] Humanity may have been given stewardship of the earth but God is the Lord of both humankind and the earth – indeed He is Lord of all the Worlds (*Rabb al-ʿālamīn*). These divine designations put the earth on an equal footing with mankind, and with all the heavens, and all the celestial bodies (stars, planets). This is underscored by other Qur'anic phrases, for instance, the first clause in Q. 7:54, 'Indeed your Lord is God who created the heavens and the earth in six days then settled upon the Throne', highlights that humanity's Lord is the same God who created the heavens and the earth. In that sense, humankind, the heavens, and the earth are all siblings. Moreover, they are siblings not only by virtue of being creatures of the same one God, but also, quite literally – for human bodies are made from the very substances of the earth, which all develop from the physical elements found in the stars.[15] The Qur'an points out that God created the human being from dust (Q. 30:20) and water (Q. 25:54), from mud (Q. 15:28). Pope Francis, too, reminds us [in LS 2] that human bodies are made of the elements of the earth, breathe earthly air, and live thanks to earthly water.[16]

2) LS 4 and Qur'anic cautions on human activity and human accountability

Pope Paul VI (1963–1978) is cited in LS 4, describing how 'unchecked human activity' such as 'an ill-considered exploitation of nature' and 'the effective explosion of industrial civilization' would result in an 'ecological catastrophe'. LS 4 notes that Paul VI cautioned the world against the dangers of scientific and technological advances when they are unaccompanied by 'authentic social and moral progress', and that he warned, in such a scenario the advances would 'definitively turn against man'.

The Qur'an sounds a similar warning in Q. 30:41, which states how the corruption appearing in the land and sea is a result of humankind's action and is a warning to them. The Qur'an here reminds humanity as a whole of the consequences of human action with regard to the treatment of the earth.

> Corruption has appeared on the land and in the sea because of what the hands of people have acquired [i.e., what people have done];[17] [this has been allowed by God] so that He makes them taste some of what they have done, that they might return [to doing what is good]. (Q. 30:41)

In the Qur'anic context of 30:41, this wrong action of humankind that has brought about the corruption is related to their worshipping something other than God or, to use Qur'anic terminology, because people 'associate partners with God' (Q. 30:42). Worshipping God is not only about devotion and prayers, it also signifies aligning ourselves in thought, word, and deed, with His qualities, which are encapsulated in His most beautiful names, and provide moral benchmarks for humanity to aspire towards. Therefore, not to worship God is tantamount to not being aligned with His moral benchmarks; this is relatable to Paul VI's caution regarding human action not being 'accompanied by authentic social and moral progress'. 'Worship', then, is not just a matter of whom/what a person prays to; 'worship' is a short form of referring to that which we align ourselves to and what we seek. In other words, 'worship' includes everything towards which people devote their energy, time, thinking and lives.

Today, it is manifest that the current corruption of land and sea is predominantly the result of severely and tragically misplaced worship/devotion towards, for instance, gaining, retaining, and increasing worldly power, wealth, profit – which almost always entails exploitation and misuse of people or nature. This is a complete contradiction of the divine qualities of mercy (*raḥmah*), justice (*ʿadl*), equity/moderation (*qisṭ*), and preservation (*ḥifẓ*),[18] to name just a few, and at odds with the human role of stewardship (*khilāfah*)[19] and human accountability to the Creator and 'Lord of Humanity' (Q. 114.1), 'Lord of the heavens and the earth and what is between them' (Q. 44:7).[20]

i) Human accountability

The day of judgement/day of resurrection, also referred to as 'the final day' (Q. 2:8), is a prominent concept in the Qur'an and serves to remind humanity of its accountability to God. There are numerous verses referring to that day, see for example, Q. 1:4; 2:48, and 2:123: 'So fear a day when a soul shall not benefit another soul with anything, nor shall compensation be accepted from her [any soul] nor shall intercession benefit her nor shall they be helped'. In other words, there will come a day when every soul will have to answer for herself and how she lived her life on earth.

Nor can any soul, according to the Qur'an, claim ignorance of accountability, for at the other end of the spectrum of the final day, there is a primordial supra-temporal moment when God spoke/speaks to all humankind while they were/are still spiritual entities yet to exist on earth as humans. In Q. 7:172 the Qur'an states that God questioned the progeny of the children of Adam, indicating thereby all humanity, asking them while they are still seeds in the loins: 'Am I not your Lord?' And humankind in its latent state responded, 'Yes indeed, we testify [that You are our Lord].' And God then states that this affirmation is taken, 'lest you say on the day of resurrection, indeed we were unaware of this.' As noted in Part 2a.ii, this passage addresses all humanity at one and the same time,

implying that all humans who ever exist have this equality in the eyes of God, established at a primordial spiritual moment, and pertaining for as long as there are any humans. In addition, the testament by all humanity that God is the Lord of us all and the divine caveat, 'Lest you say on the day of resurrection' underscore that all humankind is equally accountable to God. This verse, therefore, depicts the whole of humankind as being on an equal footing and equally accountable.[21]

Other verses, such as Q. 17:36, 'Verily, hearing, sight and the heart will be questioned,' draw attention to human accountability for our faculties of hearing and sight, and also for our emotional sentience and secret thoughts, which are all denoted in the verse by the word 'heart'. Several verses refer to the posthumous gathering of souls or return of souls to God, where the souls are informed of what they did and the things concerning which they differed on earth are explained to them. For instance, Q. 2:281 states, 'Fear a day in which you will be returned to God; then each soul will be fully compensated for what it acquired and they will not be treated wrongly.' Verse Q. 5:48, which contains the crucial advice, 'so vie in good things'[22] goes on to conclude, 'unto God is your return, all of you, then He will inform you about that concerning which you used to differ.' And Q. 39:7 contains the reminder, 'unto your Lord is your return, then He will inform you of what you used to do; He knows the deepest thoughts and feelings of humans.'[23]

Through numerous such passages, the Qur'an leaves no doubt: we will have to answer for our lives on earth, for our thoughts, words, and deeds, and for what we did with what we were given.

3) LS 5 and Qur'anic 'signs of God', conversion and renewal

LS 5 raises the issue of ecological conversion, which is taken up in sub-section 3.iii. The encyclical also speaks, in paragraph 5, of how humanity should view human life, including human moral development, and the concern humans should have 'for the world around us', taking ''into account the nature of each being'. This section endeavours to show how the Qur'anic view of nature and humanity as 'signs of God' supports the Pope's call for an attitude that accords humans and the rest of the world 'full respect'.

i) Physical nature as signs of God

Pope John Paul II is cited in LS 5, warning 'that human beings frequently seem "to see no other meaning in their natural environment than what serves for immediate use and consumption"'. With reference to the significance of the natural environment, the Qur'an repeatedly refers to environmental elements as revelatory 'signs (*āyāt*) of God'.[24] It also uses the exact same word for its own verses,[25] for instance, in Q. 15:1: These are the signs/verses (*ayāt*) of the Scripture, a clear

recitation (*qur'ān*). Q. 13:1–2 juxtaposes both applications of the word *āyāt,* using it first with reference to the scriptural verses and then with reference to natural phenomenon:

> [13:1]These are the signs (*āyāt*) of the Scripture; that which is sent down to you from your Lord is the truth, but most people do not believe. [13:2]God is the one who raised the heavens without any pillar which you see; then He settled upon the throne and subjected the sun and the moon; each runs for an appointed time. He directs the [whole] matter and He details the signs (*āyāt*) that perhaps conceivably you will have firm belief in the meeting with your Lord.

It is Koláček's view that designating nature as 'signs' constitutes the primary way that the Qur'an addresses nature's ethical value.[26] In fact, by using the same word for natural phenomena as it does for its own verses, the Qur'an indicates that nature is also a revelation of God, like the Qur'an itself;[27] that nature discloses something about God, its Author.

> Nature, according to the Qur'anic perspective, may also point to what is beyond itself; in this sense the role of nature is similar to that of a mirror which reflects the power, beauty and wisdom of its Creator. Therefore, according to the Qur'an, everything in the natural world is a sign (*ayah*) of God.[28]

Furthermore, in Q. 16:68 – which describes how God addresses the bee, infusing it thereby with its instinctive behaviour – the aspect of nature as both divine revelation and recipient of divine revelation is underscored by the use of the verb 'to reveal' (*awḥā*): 'Your Lord *revealed* to the bee'.[29] The same verb, *awḥā*, is used for the revelation of the Qur'anic scripture to the Prophet. Thus, the nature of the tiny bee is itself a revelation from God – not something to be disregarded.

A series of verses in Chapter 30, and verses in other chapters of the Qur'an, identify diverse natural phenomena as 'among His (God's) signs'. Among the signs of God are: that God created humans from dust (Q. 30:20); that we have spouses/mates, and the existence of love and mercy between couples (30:21); the creation of the heavens and the earth, the plurality of human languages, and differences of colour (30:22); the human need for sleep, that rejuvenating sister of death (30:23); lightning (30:24); the suspension of the heavens and the earth by God's command (30:25); the blowing of the wind (30:46); the absence of daylight from the night (36:37), which in modern astrophysical terms is a reference to the pivoting of the earth on its axis; the revivification of the 'earth after its death' (Q. 57:17), understood as the revival of vegetation when rain falls (or as summer following winter). Animals are also referred to in the Qur'an as being among God's revelatory signs, in particular, bees (Q. 16:68–9), birds (Q. 24:41), cattle (Q. 16:66), and camels (for example, Q. 7:73 and 11:64).[30]

In addition, the Qur'an makes frequent reference to elements of nature with the clear implication that they demonstrate God's power. For example, Q. 51:1–4 seem to describe four different types of winds (or angels that drive them): i) those that scatter, ii) those that carry heavy

things (such as rain-bearing clouds, hurricanes/tornadoes), iii) those that flow gently, and iv) those that distribute (pollen/seeds/rain-clouds). Q. 56:58–9 draw humanity's attention to the human sperm, reminding us that it is God, not people, who created it. Similarly, in Q. 56:63–4 the seeds of crops that humans sow in the earth are given as an example of divine, not human, creativity.[31] Q. 56:68–9 refer to fresh water and the rains as divine provision, and highlight that it is by God's creative power that there is drinkable fresh water on earth and that not all water on earth is salt-water (like the seas). Verses 71–3 of the same chapter (Q. 56) draw attention to the beneficial use of fire, and to the trees that make it possible to have fire, again directing the audience to God who has created these things.

In short, the Qur'an drums home that nature is a divine work and a means by which something of God is revealed. God is the Creator (*al-Khāliq*), the Original Creator (*al-Khallāq*), the Maker (*al-Bāriʾ*), the Originator (*al-Badīʿ*), the One who gives form to things (*al-Muṣawwir*), the Lord/Nurturer (*Rabb*), the Provider (*al-Razzāq*) and Nourisher (*al-Muqīt*).[32] It follows that nature is to be considered and treated with respect by humanity even when humans avail ourselves of nature for our benefit, for the Qur'an also states that God created for humankind animals that are subject to people and from whom humans have diverse benefits including food, drink, carriage, labour.[33] Other verses pronounce that God subjugated the sun, the moon (Q. 13:2), the stars (Q. 7:54; 16:12), and the clouds (Q. 2:164). Moreover, He subjugated the seas so that people might run their ships and seek of God's gracious provision and give thanks to God (Q. 45:12), and that people may use the stars for navigation (Q. 16:16) and may eat of the moist flesh fished from the sea (Q. 16:40); God subjugated whatever is in the heavens and the earth for the benefit of humanity – all from Him, a sign for people who think (Q. 45:13; 31:20). All this subjugation of natural earthly elements and other creatures is for the benefit of humanity. It behoves humanity to be grateful to God (16:14). Needless to say, gratitude to God consists in using His creation mindfully, appropriately, and in a balanced manner; not in treating His creation badly, thoughtlessly, exploitatively, and oppressively. As God is Gracious to humanity, so also should humanity be gracious to others, and in the use of His creation, which are all His signs.

ii) Humanity itself as a sign of God

Not only is nature full of the signs of God, humanity itself also contains the signs of God, as stated in Q. 41:53: 'We (God) shall show them (people) Our signs (*āyāt*) in the horizons and in themselves'. As discussed earlier (in 1b.ii, 2b.iv–vi), humankind contains the expressions of God's own qualities. These too are revelatory signs of God; for example, Q. 30:21 lists among God's signs the loving friendship (*mawaddah*) and mercy (*raḥmah*) which God has placed between human couples; these qualities are ascribed to God Himself through the divine names *al-Wadūd* ('the Deeply-Loving'), *al-Raḥmān* ('the All-Gracious'), and *al-Raḥīm* ('the Merciful').[34] Q. 30:21 states, 'Among His signs (*ayāt*) is that He created for you spouses from yourselves that you may feel peace with them; and He placed

love and mercy between you; verily in that are signs for a people who think.' Human love, friendship, and mercy are divine gifts placed within humanity, and express God's own love, friendship, and mercy.

Addressing humankind, Q. 45:4 proclaims, 'And in your creation and (in that of) the beasts He has spread [over the earth] are signs for people who are certain.' This verse is part of a list (Q. 45:2–5) which reiterates that in the heavens and the earth there are signs for people who believe, and in the creation of humankind and diverse animals are signs of God for people who are certain, and in the alternation of night and day, and in God sending down from the sky sustenance (rains) and reviving therewith the earth after its death, and in the diversity of winds – in all these are signs for people who think intelligently. This set of Qur'anic verses places humankind firmly within the category of physical nature as revelatory signs.

Moreover, human diversity is itself a deliberate divine 'sign', as expressed in Q. 30:22: 'Among His (God's) signs is the creation of the heavens and the earth and the diversity of your languages and colours; indeed in that is a sign for those who know.' Q. 49:13 explains that the purpose of human diversity is to allow for mutual recognition and acknowledgement; and in the same breath as telling us this, the Qur'an reminds us pithily that external differences do not make for any sort of superiority; the truly noble are distinguished by virtue: 'O humankind, We have created you from a male and a female and made you (diverse) peoples and tribes so that you know each other mutually; [35] verily, the most noble of you in God's view are the most God-aware of you; indeed God is knowing (*ʿalīm*), fully-aware (*khabīr*).'[36] Human diversity, like all the diversity in creation, is a deliberate divine act that displays the wonders of God and is, therefore, to be cherished.

LS 5 defines 'authentic human development' as having 'a moral character that presumes full respect for the human' but is 'also concerned for the world and takes into account the nature of each being and of its mutual connection in an ordered system'. From the Qur'anic perspective of creation consisting of 'signs of God', humanity's use of God's creation must retain respect for all creation, including humankind itself, as divine signs that have the profoundest interconnection in the One who is signalled by creation, namely, God Himself.[37] Özdemir describes this as, 'the disappearance of any demarcation between human and nature as disconnected entities or objects. They are as signs of God interconnected with each other and interdependent; in environmentalist terms this implies a wholistic, spiritual and balanced view of all reality.'[38]

In our engagement with the world and each other, and in the actions we undertake to make human life better, we must not lose sight of the spiritual truth that, 'Wheresoever you turn, there is the Face of God' (Q. 2:115). This Qur'anic statement presents us with an invitation to encounter God wheresoever we turn.[39] LS 221 describes this in Christian terms: 'the awareness that each creature

reflects something of God and has a message to convey to us' and that Christ 'is intimately present to each being surrounding it with his affection and penetrating it with his light'.

iii) Conversion, repentance and renewal; *tawbah* and *iḥyāʾ*

LS 5 cites Pope John Paul II's call 'for a global ecological *conversion*'. LS 216–221 treat the topic in more detail, relating it to 'heartfelt repentance' and 'reconciliation with creation' (LS 218). The normal Qur'anic verb for 'repent' is *tāba* (e.g., in Q. 6:54 cited in Part 3.5), which literally denotes to turn back to something/someone (especially to turn back to God in repentance) and away from something/someone (in particular to turn away from that which is wrong).[40] The Qur'an is replete with exhortations, guidance, and constant reminders to help humanity turn away from unbalanced living, back to the straight way of balanced life. The divine name *al-Tawwāb* (an intensive form derived from the verb *tāba*) means 'the Frequently Forgiving' and indicates how God often and repeatedly turns to creatures with forgiveness, mercy and grace. The same word *tawwāb* may be used to describe a person who frequently repents of their wrongs and turns back to God, seeking forgiveness and help. Encapsulated in the verbal noun *tawbah,* meaning 'repentance' or 'turning back', one finds a resonance with Pope Francis' idea of conversion presented in LS 216–221 and of how 'ecological conversion' is intertwined with 'profound interior conversion' (LS 217). Sincere *tawbah* calls for an acknowledgement of the wrongs that have been done and requires the genuine intention not to persist in the wrongful things that have led to the need for *tawbah*. As stated in LS 218, 'the recognition of our errors, sins, faults and failures, leads to heartfelt repentance and desire to change'.

In the context of conversion, LS 216 speaks of the Christian contribution 'to the renewal of humanity', which is a concept that has an equivalent in the Islamic term *iḥyāʾ* (revivification). The term is derived from the verb *aḥyā*,[41] meaning to 'animate', 'enliven', 'revivify', which is used in several verses of the Qur'an to describe God's revivification of the earth through rain (e.g., Q. 35:9), and His restoration of creatures, including humans, back to life after death (e.g., Q. 36:12, 79; 75:40). All the verses that speak of God's enlivening and revivifying aspects lead to the divine name, 'the Enlivener/Revivifier' (*al-Muḥyī*), derived from the same verb *aḥyā*.[42]

Read through an ecological/environmentalist lens, Q. 57:16–17 are particularly evocative, especially bearing in mind what has been said about repentance. Q. 57:16 poses the poignant question, 'Is it not time, for those who believe, that their hearts should submit humbly to the remembrance of God?' The verse goes on to caution people against hardness of heart and the committing of transgressions that accompany the forgetting of God. Then, Q. 57:17 provides a hopeful affirmation, 'Know that God revivifies the earth after its death'. Prima facie this applies to the coming of spring after winter, rain after drought, and the immediate contextual implication is that God can

revivify a hardened heart like He revivifies dry land with rain. Succinctly, these verses relate the state of the earth to the internal state of the human heart; a sentiment echoed in the quote from Pope Benedict XVI in LS 217, 'The external deserts in the world are growing, because the internal deserts have become so vast'.

While the historical context of Q. 57: 16–17 is not environmental or ecological, reading those verses in the midst of our current crisis, the words strike a very profound chord. To remember God involves turning back to Him and away from that which took us away from Him. It means remembering Him in all His aspects, including His creative and nurturing aspects. Remembering God means living with a tender heart, aware of God's presence, aware of His signs in His creation (cf. LS 220, 'a spirit of generous care, full of tenderness'). The wider potential application of the hopeful reminder in Q. 57:17, that God revivifies the earth after its death, resonates strongly in our environmental crisis. The fulfilment of this divine promise in today's circumstances requires that humankind, God-appointed deputies and stewards of the earth,[43] urgently turn to a sustainable, more just, more caring mode of living[44] – for if there were ever an urgent time for a global ecological *tawbah*, it is now. 'We must examine our lives and acknowledge the ways in which we have harmed God's creation through our actions and our failure to act. We need to experience a conversion or change of heart.'[45]

4) LS 6 and 9 and the Qur'an on divine guidance and human beings

i) Divine guidance, human accountability

In LS 6, Pope Francis reminds us of the counsel of Pope Benedict XVI, including the point that, 'the book of nature' is unified, and includes life and human societal relations as well as the environment. He, therefore, highlights that the 'deterioration of nature is closely connected to the culture which shapes human coexistence.' LS 6 links both environmental and social damages to the 'notion that there are no indisputable truths to guide our lives and hence human freedom is limitless'.

The concepts of definite truths and assured guidance are found in Qur'anic teachings and connect practically all aspects of human life, and indeed of creation (including our treatment of nature and other creatures), to the axial semantic concept of the Qur'an[46] – God Himself. These semantic connections are often made through the divine names found at the ends of verses, as noted in Part 1b.ii (and the Appendix). God, as noted before, is described by numerous principial designations in the Qur'an, including, 'the All-Gracious' (*al-Raḥmān*; Q. 19:26), 'Merciful' (*Raḥīm*; Q. 41:2), 'Magnanimous' (*Karīm*; Q. 82:6), 'the Truth' (*al-Ḥaqq*; Q. 6:62; 23:116), 'Steadfast or Firm' (*Matīn*; Q. 51:58), 'All-Encompassing' (*Muḥīṭ*; Q. 4:126), 'the Guide' (*al-Hādī*; Q. 25:31), 'the Living and the Preserving Sustainer' (*al-Ḥayy al-Qayyūm*; Q. 2:255), 'the Protector' (*al-Ḥāfīẓ*; Q. 11:57) 'the Most

Judicious of Judges' (*Aḥkam al-ḥākimīn*; Q. 95:8), 'Ever-Forgiving' (*Ghaffār*; Q. 20:82), 'Revivifier' (*Muḥyī*; Q. 41:39), 'Restorer' (*Muʿīd*; Q. 30:11), 'Guardian' (*Muhaymin*; Q. 59:23).

For a Muslim, the Qur'an and prophetic teachings provide 'indisputable truths' of divine guidance for humanity, delineating human responsibilities and restrictions, as well as human rights, and emphasising human accountability, time and again. This last point, human accountability, anticipates Benedict XVI's assessment that human failures to recognise any reference point higher than the human being and 'to see nothing else but ourselves' are at the root of 'the misuse of creation'. As noted above (3.2), the sense of human responsibility and accountability to the 'Divine Reckoner' (*al-Muḥṣī*) and 'Judge' (*al-Dayyān*), is a key element of Qur'anic teachings, which emphasises the day of judgement when all humans are called to account for their lives and deeds.[47]

These points are encapsulated within the very first verses of the Qur'an. The fourth verse of the first chapter[48] describes God as the 'Sovereign of the Day of Judgement' (*Mālik yawm al-dīn*), followed by the human supplication to God to 'Guide us upon the straight way; the way of those whom You have blessed, not those upon whom is anger, nor those who go astray' (Q. 1:6–7). This upfront articulation of God as the Sovereign of a day of reckoning, and the human need for higher principles and guidance from Him, sets the tone for the Qur'anic ethos of human responsibility and accountability.

While accountability is presented in communal and generational terms in Q. 2:134 and 2:141, the verses still indicate that people will be accountable for themselves. Addressing the contemporaries of the Prophet, and speaking of the forebears Ibrāhīm (Abraham), Ismāʿīl (Ishmael), and Isḥāq (Isaac), these two verses state in identical words: 'That is a community that has passed away; unto them what they acquired/earned and unto you what you have acquired; nor will you be questioned about what they used to do.' Individual accountability is more explicitly affirmed in other verses such as Q. 4:84, wherein is the phrase, 'you are held accountable only for yourself' and 53:38, which states that, 'no burdened one can bear the burden of another'.[49] A person's individual capacity is linked to their accountability in several scriptural verses, such as Q. 2:233 and 2:286. The former states, 'a soul is not held accountable except (for what was within) its capacity' and the latter states, '(God) does not hold a soul accountable except for what was within its capacity'.[50] In other words, God will only call a soul to account for that which it had the capacity to bear. The implication is that if a soul had to undergo something that was beyond its capacity, then God will not blame a soul if it failed to bear that which was beyond its capacity. As to the exact extent of a soul's capacity, only God knows that. It might be more than is obvious or much less than one might think.

The person reading the Qur'an is left in no doubt at all: everyone will have to answer for their deeds and lives, and for how they discharge their responsibilities and tasks. In the hereafter, every person is to account to God, the All-Gracious, Merciful, Kind and Deeply-Loving, Forgiving, Wise, All-Knowing and Just, for their life on earth.

ii) Human beings: spirit, character and will, physical matter

In LS 6, we read that Pope Benedict XVI described humankind as comprising spirit, will, and nature (by which he meant physical nature). The Qur'an also observes the three elements of spirit, character and physical matter within humanity. These elements will be addressed, alongside human will, in this and the following subsections. LS 9 cites Ecumenical Patriarch Bartholomew's conviction that 'the divine and the human meet in the slightest detail in the seamless garment of God's creation, in the last speck of dust of our planet'.[51] As expounded earlier, the Qur'an also indicates a cosmic interconnectedness, through its concept of divine unity (*tawḥīd*), and by portraying physical nature and humanity as 'signs of God', all parts of His creation (*khalq*).[52] The Qur'anic perception of the intimate relationship between God, humanity, and cosmos is discussed further in Part 3.5. Focussing for now on the formation of the human being, the evocative word 'dust', cited in LS 9, is specifically mentioned in Q. 30:20, which states, 'And among His (God's) signs is that He created you from dust (*turāb*) then, swiftly, you are humans, spread out [on earth]'. Q. 25:54 describes another key physical element, water, being intimately connected to humanity: 'He (God) is the one who created from water a human being and then made him kinship and kindred.' Dust/earth and water are in all life on our planet, linking us on a physical and existential level.

Q. 15:28–29 and Q. 38:71–72 go further and describe both the physical and spiritual elements of the creation of the human being by God. Q. 15:29 and Q. 38:72 are identical. Their respective preceding verses (Q. 15:28 and Q. 38:71) are practically identical, too, with one difference, namely, the reference to the earthly material from which the human is made; Q. 15:28 has 'dried clay of moulded black mud' (*ṣalṣālin min ḥamaʾin masnūn*), while Q. 38:71 has simply 'clay' (*ṭīnin*). Here I cite the fuller verses, 15:28–29:

> [15:28]And when your Lord said to the angels, "I am creating a human being (*bashar*) from dried clay of moulded black mud. [15:29]So, when I have shaped him symmetrically and I have breathed into him from/of My spirit, then fall prostrating to him."

Made of physical matter, not only does humanity also have a spirit, but that spirit in us is a breath of God's own spirit.[53] Elsewhere, in Q. 50:16, the Qur'an describes God, in evocative terms, as being closer to the human than the jugular vein: 'Indeed, We created the human and We know what his soul whispers to him; We are closer to him than the jugular vein (is).' The divine and the human

meet in our very bodies, and also encounter each other all around us for 'wheresoever you turn there is the Face of God' (Q. 2.115), and there are His revelatory signs (*āyāt Allāh*).

iii) Humankind as deputies, successors and stewards on earth

The word *khalīfah* (plu. *khulafā'*) denotes a 'successor', 'vicegerent', 'deputy', 'lieutenant',[54] with the strong connotation of 'stewardship'. Mustansir Mir notes that in the Qur'an the term has two connotations, one as an ethical concept, and another as a political concept.[55] The political concept is not relevant to our considerations. As an ethical concept, Mir notes that there is Qur'anic support for the view that the human being was appointed as the vicegerent of God. He cites verses such as Q. 22:65; 31:20; 45:13, which indicate that God has created all things for the human and has given humanity control over everything, and Q. 33:72, which refers to how humanity undertook a responsibility which the heavens and the earth excused themselves from bearing.[56] Addressing the question of why the human was made the deputy of God, Mir refers to Q. 2:30–39 as verses indicating that the purpose was to ascertain whether the human being would freely choose to accept or reject the divine guidance that would come to humanity.[57] In other words, the wider context is one of a trial, as mentioned in Q. 67:2, '[Blessed be God …] who created death and life that He might try you and see which of you is best in deeds', and in 6:165, which I discuss below. Mir sums up humanity's vicegerency as a position of privilege – of having freedom of choice and a responsibility to use that freedom well.[58]

The theomorphic portrait of the human being presented earlier in this study provides a more ontological and qualitative perspective on how and why humanity has been placed on earth as deputies. To recapitulate what was discussed earlier, in Part 1b.i, God's Face is described in Q. 2:115[59] as being in whichever direction a person might turn. This verse indicates that God is present everywhere,[60] with the divine face understood by some exegetes to be a reference to God's essence and attributes.[61] Also, according to the Qur'an (15:29; 38:72), the human being is endowed with something of God's own Spirit. As expounded above, Q. 15:28–29 describe God informing His angels that He is making a human being (*bashar*) from clay and mud – earth material – and that when God has shaped the human and breathed into him from God's own spirit, then the angels should prostrate to the human. This verse clearly specifies that human beings contain something of the spirit of God within their body of earth. Furthermore, Q. 30:30 speaks of 'God's nature (*fiṭrat Allāh*), according to which He made humankind'.[62] As discussed in Part 2b.v and 2b.vi, the divine names can be related to God's nature, and the qualities/characteristics that they enshrine can be related, in measure, to human nature. As Bakar puts it, 'By virtue of being made in His image, man is endowed with God-like attributes and qualities […] man is a theomorphic being in a complete and integral manner.'[63]

This coming together of the divine and the dust and water of our planet, within the human being, has a profound purpose in God's creative intention for humankind, as indicated in Q. 2:30–33 (below), which tells of the 'moment' when God informed the angels that He is placing a *khalīfah* in/on earth.

> 2:30When your Lord said to the angels, verily, I am placing in/on[64] the earth a deputy (*fi'l-arḍi khalīfah*), they said, Are You placing in it [a being] who will wreak corruption[65] therein and shed blood, while we hymn Your praise? He said, Verily I know what you do not know. 2:31And He taught Adam the names, all of them. Then He presented them to the angels and said, Inform me of the names of these if you are sincere. 2:32They said, Praise be to You! we have no knowledge save what You have taught us; indeed You, You are the Knowing, the Wise. 2:33He (God) said, O Adam inform them of the names of these. Then when he had informed them of their names, He (God) said [to the angels], Did I not say to you that I know the unseen [things] of the heavens and the earth and I know what you display and what you conceal.

According to Q. 2:31–32, God shows the angels something of the hidden wisdom in the creation of the human being and in the placement of the human as deputy on/in earth, in that He teaches the human being 'the names, all of them'; when God presents these things to the angels and asks them to name them, they cannot, for they have not been taught them. If Q. 2:31 – 'He (God) taught Adam the names, all of them' – is applied to the divine names, as Ibn ʿArabī does, then humankind is meant to know all the divine names, as well as the names of all things, which is the other interpretation of this phrase.[66] The divine names and the names of all things are also profoundly connected, as was demonstrated in Part 2b.iv.[67] Bakar observes that, 'both interpretations [of the word 'names'] are correct[68] and both convey the idea of man's uniqueness' and that, 'this distinctiveness of man qualifies him to be appointed God's vicegerent (*khalīfah*) on Earth.'[69]

Humankind is today discovering and naming parts of physical creation, on both the macrocosmic and microscopic levels, living up to this aspect of the hidden wisdom. What we do with this knowledge is the more complicated part, hence the qualms of the angels. Human history has, indeed, vindicated the angels' alarm. But God's reassurance, 'I know what you do not', has a further aspect. Q. 43:60 tells us that had God willed He could have placed angels on earth to be deputies instead of humans.[70] But the human being – divine deputy on earth, made of earthly matter – is a uniting of divine spirit, intellect combined with moral character, and physical earth. The human connects these different dimensions and elements in a way that angels do not, since angels do not contain within themselves physical matter.[71] It is because humankind is made 'in the total image of God' that humanity is the vicegerent, *khalīfah*, on earth, whose 'purpose is to reflect God in a total way in the world'.[72]

A crucial part of the hidden wisdom of appointing the human being as deputy on earth is that an earthly creature should overcome the weaknesses and shortcomings, the passions and proclivity to excesses, that are inherent to a being born in and of the earth. Q. 6:165 makes it clear that being appointed deputy also means being tested:[73] 'He (God) is the one who made you deputies of the earth, and He raised some of you above others by degrees, that He may test you in what He has given you; verily, your Lord is Swift in retribution and indeed, He is All-Forgiving, Merciful.' The three points made in this verse are: 1) humanity has been given stewardship of the earth; 2) and we are tested in what we have been given; and 3) God requites us justly for what we do but is also clement.[74]

How the weaknesses inherent in the human state are to be successfully overcome is also part of the hidden divine wisdom noted in Q. 2:30, and relates to the names that God taught the human being (Q. 2:31). As mentioned earlier, Ibn ʿArabī interpreted those names to mean nothing less than the names of God. Speaking of the 'complete/perfect human being' (*al-insān al-kāmil*) first created by God, Ibn ʿArabī stated that 'all of the names which are divine properties/qualities, are manifested in this human creation, which thus acquired the rank of comprehending and holding together this existence (*wujūd*)'.[75] In the context of Ibn ʿArabī's text, *wujūd* may be taken as a reference to the whole universe. Elsewhere, Ibn ʿArabī states that God 'works in us through us even as we manifest through Him in Him.'[76] It follows, then, that it is in and through choosing to extend the qualities enshrined in God's names that the human being overcomes the weakness within himself/herself and through which humankind achieves its objective of being the divinely appointed deputy on/in earth.

In sum, humankind, ontologically endowed by God with something of His own spirit and attributes, has a divinely-bestowed custodial function towards God's creation, in which God is everywhere present. Humans perform their responsibility, as best as can be done by fallible beings, through actualising the divine characteristics that lie latent within them (see Part 2b.v and 2b.vi). From a spiritual perspective, it falls on human beings, as deputies of God on/in earth, to attempt to extend the divine qualities through their lives and actions, in ways that are appropriate, balanced, and measured, as pleases God, the Owner of all these attributes, and who placed them in humankind.[77] As part of our duties as deputies, we are supposed to 'protect and sustain the earth'.[78]

The ecological function of the *khalīfah* is identified by Osman Bakar as 'the sixth major ecological principle in Islam.' He advises that it is crucial to the healthy and successful performance of this role that God be neither forgotten nor excluded, for that is the only way it remains wholistic, unified and good.[79] Remembering God is a state of *tawḥīdic* consciousness, for 'to forget God is to forget who we really are, since we were created as theomorphic beings'.[80] This brings to mind Q. 59:19, which advises people not to be like those who forgot God and so He let them forget themselves,

for such people are iniquitous. In contrast, Q. 62:10 connects human prosperity with the remembrance of God: 'remember God much that you may prosper'. As explained in this section and in Part 2b.vi, remembering God (*dhikr Allāh*) is not only the mindful invocation of God's names but is to be achieved also in action, through harmoniously actualising His qualities, as pleases Him, in mindful modes of conduct that are aligned with God's merciful and wise guidance. As humans it is we on/in earth who can choose to do this, and if we do this, then the positive ramifications – the prosperity – extends beyond humans to non-human animals, and all life on earth, and the planet itself.

iv) Human will and intellect

Contrary to popular misconceptions, the Qur'an has more than a few verses that speak to humanity's freedom of choice. To give a few examples, Q. 36:54 indicates just requital for deeds done by people – where the implication is that the deeds were done through free choice, for otherwise it would not be just requital: 'Today [the day of judgement] no soul shall be wronged nor shall you be requited except for what you used to do'. There is an appeal to human reason, which, it is implied, should have led to better choices, in Q. 36:60–62: 'Did I not covenant with you, O Children of Adam, that you would not worship Satan – indeed he is a clear enemy to you; and that you worship Me; this is the straight way?[81] But he has misled many of you; did you not think sensibly?' Q. 10:99 states that had God willed it, then everyone on earth would believe; the verse then asks, 'so are you going to compel people until they become believers?' The implication is clear, God did not impose belief on people and therefore neither should anyone compel anyone else; this shows respect for human freedom and choice. A further example of God not compelling people is found in Q. 6:107: 'And if God willed it [i.e., compelled them], they would not have associated (any other god with God); We have not made you a guardian over them; nor are you their trustee/disposer of affairs.' Human free will is, then, not a contradiction of human submission to God's guidance and loving, gracious will; indeed, as Muslims commonly affirm, the choice to submit to God is itself an act of free will.

Moreover, humans can have free will only because God has it, and because we have something of His character in us, albeit in circumscribed manner; or to put it another way, since God has absolute free will, humankind must have free will, albeit to a limited extent.[82] Humanity, indeed, has considerable capacity and powers to do both good and ill. Cognizant of being chosen by God to be deputies and stewards on earth, humankind may, or rather, needs to choose to emulate Him better and to extend His qualities as best as fallible creatures can. Ibrahim Özdemir observes that the human being is the only creature on earth that does not automatically follow its nature; rather, the human has to choose to do so and therein lies 'both the unique privilege and unique risk of being human'.[83] Speaking of the *fiṭrah*, Saadia Khan Chishti also expressed the hope that a reawakening suffused with

the spiritual potential of humankind will encourage a gradual 'paradigm shift from the status quo of consumerism to one of enlightened interaction between humans and the environment.'[84]

Muslim scholars have long spoken of the human intellect as being the factor that distinguishes humanity from other creatures on earth.[85] Q. 3:190–1 indicates that the ability of humans to contemplate nature leads to an appreciation of God's purposeful creation of the universe and to a glorification of Him – and also to the taking refuge in Him from the repercussions of our misdeeds. These verses in full are:

> 'Verily in the creation of the heavens and the earth, and (in) the alternation of night and day are signs for those possessed of deep-thinking minds (*albāb*); those who remember God (when they are) standing, seated or lying down on their sides; they contemplate the creation of the heavens and the earth (thinking): 'Our Lord, you did not create this in vain; glory to You; preserve us from the punishment of fire.'[86] (Q. 3:190–1)

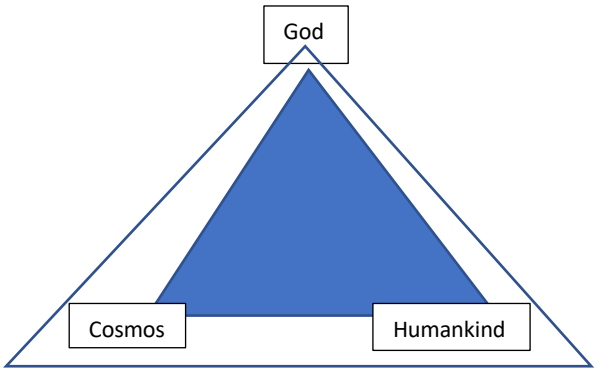
As noted at the end of Part 2a.ii, scientists today hold that intelligent life seems to be unique to earth in our galaxy, and that humanity represents the apex of intelligent life.[87] This links back to what Ibn ʿArabī said about God desiring to create free, rational creatures (humankind) to come to know Him through His attributes within humanity and creation.[88] The most significant purpose, spiritually speaking, of humans as the most advanced and intelligent life-form on earth, is to come to know the Creator through His creation, as witnessed on/in and from earth, and to draw from this knowledge the right consequences, in thought, word and deed. Intimately related to this purpose, a primary task of humanity, as the divinely-placed deputies on earth, is to understand and take care of this our God-given planet, as well as the diverse life-forms it has a unique capacity for sustaining. Osman Bakar stresses that the type of human respect for (physical) nature that the Qur'an endeavours to inculcate is spiritual and intellectual, and that this is based on knowledge, 'not only of nature's delicate ecological balance and unity, but also of the metaphysical nexus between all created things and God'.[89] The next section addresses aspects of this nexus.

5) LS 7–8 and Qur'anic indications of the inter-connection between God, humanity and the physical universe

With reference to human-caused global warming, destruction of biological diversity, deforestation, destruction of wetlands, and contamination of the earth, land, and air, Pope Francis cites Ecumenical Patriarch Bartholomew as defining such crimes 'against the natural world as a sin against ourselves and a sin against God' (LS 8). This concept is also found in the Qur'an, as demonstrated below. Building up to the equation made by Patriarch Bartholomew, I will start by

explaining the scriptural basis for a tripartite relationship between God, the universe, and humankind, before moving on to the idea of sin in this context.

First of all, as noted in Part 3.1 on LS 2, the Qur'anic designations of God as, 'Lord of the heavens and the earth' (*Rabb al-samāwāti wa'l-arḍ*)[90] and, 'Lord of Humanity' (*Rabb al-nās*),[91] establish an equivalence between humanity and the physical universe, and relate both of these to God as our Lord. This sets up the tripartite relationship: God, cosmos, and humankind, which may be depicted as a triangle, with God at the top, occupying a position both within and outside the triangle, all around it.[92]



LS 66 points to a similar three-fold relationship in the Bible. 'The creation accounts in the book of Genesis contain, in their own symbolic and narrative language, profound teachings about human existence and its historical reality. They suggest that human life is grounded in three fundamental and closely intertwined relationships: with God, with our neighbour and with the earth itself.'

Özdemir notes that Muhammad Iqbal pointed out how the Qur'an seeks 'to awaken in man the higher consciousness of his manifold relations with God and the universe', through the Scripture's reflective observation of the natural world.[93] The tripartite relationship of God, cosmos, and humanity,[94] is signalled through the Qur'anic phrase, 'God's signs'. This phrase, as discussed earlier,[95] is used to refer to natural phenomena as well as to God's Scripture, thereby indicating the natural world as a revelation. Furthermore, as previously noted,[96] Q. 41:53 adds humanity as a third bearer of God's signs: 'We (God) shall show them (people) Our signs (*āyāt*) in the horizons and in themselves'. This points to humanity as also being bearers and manifestors of divine signs and further underscores an equivalence between the physical universe and humanity, this time as repositories and expressions of God's signs.[97] The cosmos and humanity are thus twin receptacles and twin revelations of God's signs – another scripture-based pairing. Osman Bakar refers to nature, the macrocosm, as the counterpart of the human being, the microcosm; he draws attention to the complementary Sufi terms that refer to the cosmos as 'the big world' (*al-ʿālam al-kabīr*) and the human being as 'the small world'

(*al-ʿālam al-ṣaghīr*).[98] This nomenclature evokes the idea that what happens in the big world affects the small world, and vice versa.

With regard to sin, in the context of human accountability on the day of judgement, Q. 7:9 describes people whose scales of good deeds weigh only lightly as 'the ones who have lost themselves/their souls (*anfusahum*) because they used to wrong (*yaẓlimūn*) God's signs (*āyāt*)'. This may be taken as referring to humanity's mistreatment of the natural world (the earth and all its creatures, people included), as much as to humanity's disregard of scriptural guidance. The verb *ẓalama*, rendered in Q. 7:9 as 'wrong', means also to 'harm', 'oppress', 'treat unjustly', 'tyrannise', and 'do evil'; it denotes deep sin and the darkening of the soul.[99] Bakar observes that in the Qur'an the word *ẓulm* and its derivatives are used with the sense of injustice to self as well as injustice to others.[100] Taking the above altogether, then, the harm perpetrated against the natural world is a sin against 'God's signs', a sin against the Lord/Creator/Author of the signs, a sin against earth creatures, and a sin against the souls of the perpetrators.[101]

Q. 7:9 also brings to mind the words of al-Masīḥ Sayyidunā ʿĪsā ibn Maryam[102] (the Messiah, Jesus son of Mary) ﷺ: 'What will it profit a man if he gains the whole world, and loses his own soul?'[103] When people ravage the earth and its resources, and ill-treat animals and humans, all to gain wealth, then they may gain a world of wealth, but they lose their souls, and may also lose the earth itself in the process. This is not God's intention for humanity. But, as Q. 2:30 (cited in Part 3.4.iii) indicated, there is a divine wisdom in God's creation of the human being as His deputy on earth – may that wisdom now help us to repair the damage done, to rectify our ways, and restore the earth's climate health and its ecosystems as much as we are able to.[104] A reiteration in Q. 6:54 of God's self-obligatory mercy[105] offers hope and reassures us that 'when those who believe in Our signs come to you, say, peace be upon you, your Lord has inscribed mercy upon Himself, that if anyone has done a bad thing unknowingly then repents thereafter and makes amends,[106] verily, God is All-Forgiving (*ghafūr*), Merciful (*raḥīm*)'. Now that we know the ill-consequences of immoderate and unjust ways, humankind can still turn to more balanced and just ways of living, make amends, and choose to make mercy our default mode of living.

6) LS 9 and Qur'anic altruism

LS 9 notes that Patriarch Bartholomew drew attention to the ethical and spiritual roots of our present-day environmental problems, and that he proposed sacrifice, generosity, a spirit of sharing, asceticism, and global altruism as solutions to rectify fear, greed and compulsion.[107] These resonate with several Islamic designations of God, including, 'the Compassionate' (*al-Raʾūf*), 'the Benign' (*al-Ḥannān*), 'the Bestower' (*al-Mannān*), 'the Giver' (*al-Wahhāb*), 'the Magnanimous/Generous' (*al-*

Karīm), 'the Just' (*al-ʿAdl*), and 'the Equitable' (*al-Muqsiṭ*), among others.[108] These all designate values and attributes that humanity is endowed with and supposed to extend on earth. Saadia Khan Chishti points out that in Islam, charity is conceived of as part of human nature, with the implication that humans are innately altruistic.[109]

Q. 59:7 provides the basis for an altruistic Qur'anic principle of wealth distribution,[110] which advocates that wealth should not be circulated only among the rich:

> Whatever [wealth] God has bestowed upon His Prophet from the people of the towns, it is for God [i.e., for use for the good of all] and for the Prophet, and for relatives and orphans, and the poor and the homeless,[111] so that it (the wealth) does not become (a thing) circulated between the rich among you.

The definition of righteousness (*birr*) in Q. 2:177 includes altruistic terms:

> Righteousness (*al-birr*) is the one who believes in God, the last day, the angels, the scripture and the prophets, and (who) gives wealth, by/for His love,[112] to relatives, orphans, the poor, the homeless, those who ask, and to emancipate slaves, and (who) performs the prayers and gives charity, and those who fulfil their promises when they make them, and those who persevere through hardships, hurts and distressing times; those are the ones who are sincere; those are the ones who are God-fearing.[113]

Birr is intimately related to the divine name *al-Barr* ('the Righteous', 'the Good', 'the Dutiful'), found in Q. 52:28 as a pair with *al-Raḥīm* ('the Merciful'), which again shows how human virtue is connected to God's qualities in the Qur'an.[114]

7) LS 10 on St Francis, and Islamic reflections on the characteristics of the Prophet of Islam

In LS 10, Pope Francis describes Saint Francis' 'care for the vulnerable' and 'the poor and outcast', his generosity and simplicity, his living in harmony with God, others, nature and himself. This will strongly remind Muslim readers of descriptions of the Prophet Muḥammad ﷺ in Islamic tradition. Care for the poor and vulnerable members of society, and concern for justice, are prominent features of the Prophet's outlook and teachings. Regarding vulnerable members of society, a famous narration reports that the Prophet said that anyone who looks after an orphan will be as close to him (the Prophet) like his forefinger is to his middle finger.[115] An example of his concern for justice addressed both alleviation for the victims of injustice/oppression[116] as well as prevention of perpetration.[117] Similarly, his simplicity of life, and his care for animals and nature are well-known to Muslims familiar with narrations about the Prophet's life. He emphasised simplicity in life as being a part of one's faith,[118] he corrected those who mistreated animals,[119] and he advocated gentleness in all things.[120] He promoted conservation of trees,[121] careful use of water,[122] and encouraged planting, even if that be at the very end of time.[123]

Q. 9:128 describes the Prophet ﷺ as endowed with characteristics familiar from the divine names: protective care, empathy, compassion, and mercy, especially for those who believe. Q. 3:159 describes the Prophet's lenience as a mercy from God and Q. 21:107 proclaims that the Prophet has been sent only as a mercy to all worlds: 'We have not sent you except as a mercy to the worlds'. The Prophet is not only a messenger because he comes with a divine message, he is also an ontological messenger inasmuch as he manifests divine characteristics towards creation. The first testimonial of Islam is, 'There is no god but God' and the second is, 'Muḥammad ﷺ is His messenger'. Contemplating the significance of the name Muḥammad, which literally means 'praiseworthy', lends itself to a Sufistic interpretation of the second testimonial of Islam. The testament, 'Muḥammad is the messenger of God' not only indicates the prophethood of Muḥammad ﷺ, but also that everything praiseworthy is an ontological messenger of God, as it expresses something of Him, for He is the only one who is truly worthy of praise. The second testimonial thus expresses an affirmation of qualitative alignment with God: whatever is praiseworthy is a messenger from God directly. This is particularly relevant to the qualities and principles designated in the Islamic divine names; they are existential messengers of God in that wherever a quality attributed to God is present, there is present something of God, for 'to Him belong the most beautiful names' (Q. 7:180).

In addition to the Prophet's concern for social justice and his wholistic care of the earth and all it contains (human and non-human alike), there is the Prophet's mystical inclination. This was manifested even before his ministry formally began, for he was in the habit of retreating to a mountain cave for periods of isolation (*khalwah*) to come closer to God.[124] His personal spiritual practices continued and deepened through the course of his ministry. Q. 73:1–8 describe injunctions to the Prophet to stand in prayer for much of the night, to recite the Qur'an mindfully, to remember/invoke the name of the Lord and devote himself to Him wholeheartedly. The emphasis on night-time worship is explained in verses 6–7 as being more conducive to revelation, whilst also allowing the Prophet to fulfil his lengthy duties during the daytime.[125] The final and longest verse of the chapter, Q. 73:20, is addressed in the first instance to the Prophet and a group of his companions, but serves also as a call to all Muslims. This verse reiterates the earlier injunctions to the Prophet, and expands on them, while also allowing leniency regarding the vigils (for instance, in the case of those who are ill or travelling). The verse also contains a reminder to pray, to give charity, and to 'lend God a good loan', and that (people) will find whatever good they have sent on for their souls [i.e. the good consequences of what they have done], in God's presence, which is the best and greatest reward. The verse concludes with a call to seek God's forgiveness and a reassurance that He is Ever-forgiving and Merciful. In short, Q. 73:20 called for a very high level of devotion, prayerfulness and charitability from the Prophet and his close companions – and by extension, from Muslims in general.

In short, the Prophet's message was a wholistic one, addressing spiritual, societal and ecological matters, and manifestly relates to what the Pope calls integral ecology.

8) LS 11 and the Qur'an on creation's praise of God and perspectives on animals

i) Creation's praise of God

Pope Francis describes Saint Francis of Assisi as communing with all creation, inviting even flowers to praise God (LS 11). In several places, the Qur'an points to all creation and creatures praising God. Here are a few examples: 'whatever is in the heavens and the earth praises God' (Q. 57:1); 'the seven heavens and the earth and whoever is in them glorify God; there is not a thing but sings His praise, but you do not understand their praise' (Q. 17:44); 'thunder resounds with God's praise as do the angels, in His awe' (Q. 13:13). These verses, and the numerous other Qur'anic verses like them, show that the very nature of natural things is an act of praise to God. The sun and other stars, the moon, thunder and lightning on earth, and everything in the heavens and the earth, all praise and testify to God their Creator just by being what they are and functioning as they do. The natural world is in a relationship of existential praise with God its author.[126] Özdemir notes that according to Qur'anic verses such as Q. 44:38–39, 19:32–34 and 17:44, everything in the natural world, animate or inanimate, celebrates and declares God's praise.[127] Q. 24:41 provides another comprehensive description of creation as comprised of entities and communities all praising God, with the implication that they are therefore to be treated with respect: 'Do you not see that (it is) God whom all that is in the heavens and the earth and the birds in ranks glorify? Each knows its prayer and its hymn of praise. And God knows what they do.' The following significant eco-theological principle may be inferred from Q. 24:41, namely, that no part of creation should be damaged, because to do so would be to damage a unique form of praise to God.[128]

In keeping with the theory of creation as expressions/reflections of divine names and qualities, Said Nursi regarded nature and animals as 'mirrors that glorify God and reflect His attributes'; for him everything 'from stars to flies, angels to fishes, plants to particles' prostrate to God and worship and praise Him in different ways 'according to their capacities and the divine names which they manifest'.[129] Applying this to ecology, Nursi described microbes, ants and eagles as divinely appointed 'public health officials' who clear away corpses in nature; he dedicated a whole treatise to showing 'the importance of flies and their role in the eco-system'; and he advised humanity to 'take lessons from eco-systems and live wise and frugal life'.[130] As Özdemir points out, for Muslims the natural world is, 'alive, meaningful and purposeful… and *muslim* [submitted to God] like themselves'.[131] Bakar notes that the unique mode of every creature's submission to God pertains to its very existence and natural characteristics, which in turn display signs of divine power and

wisdom.[132] In short, nature praises God existentially and ontologically, and it is profoundly worthy of human respect and care.

ii) Scriptural perspectives on animals

Further in LS 11, Pope Francis cites Saint Bonaventure's description of Saint Francis' relationship with nature: 'from a reflection on the primary source of all things, filled with even more abundant piety, he would call creatures, no matter how small, by the name of "brother" or "sister".' The significance of nature in the Qur'an has already been much discussed in earlier parts of this book. The Qur'an also features several references to animals in particular. Six chapters of the Qur'an are entitled after an animal: Q. 2 is called 'The Cow'; Q. 6 is called 'Livestock'; Q. 16 is 'The Bee'; Q. 27 is 'The Ant'; Q. 29 is called 'The Spider' and Q. 105 is entitled 'The Elephant'. Three of these six titles refer to insects and Q. 2:26 states that God does not disdain to use even the tiny gnat as a symbol in His book, thereby elevating the humblest of earthly creatures. This dignification of insects is further seen in verses that depict God speaking to the bee (Q. 16:68–9), and the ant speaking to her community (Q. 27:18). Starting with the latter, the Scripture recounts a story about the Prophet Soloman marching with his armies through a valley of ants, and how a little ant, in seeing Soloman and his host approaching, called out the warning, 'O ants! Go into your homes! so that Solomon and his armies do not crush you unknowingly!'[133] Like other living beings on earth, the tiny ant lives its life as a member of a community and is duly concerned for the safety of that community.

The bee is mentioned in the Qur'an in especially evocative terms. Verses 16:68–69 state:

> [16:68]Your Lord revealed (*awḥā*) to the bee: 'Make dwellings among mountains, and trees, and in the roofs (people) make. [16:69]Then eat of every fruit and follow the easy ways of your Lord.' From their innards a drink of different colours emerges, in which there is healing for humans; verily, in that is a sign for people who think.

As briefly noted earlier,[134] the verb used here for God's revealed guidance to the bee is *awḥā*, which is also the word used for the revelation of the Qur'an. This creates an internal Qur'anic resonance between divine guidance revealed in the form of instinct to the humble honey bee and divine guidance revealed as 'scripture' to a human prophet. Moreover, the natural instinct of bees is here presented as tender speech from God, who addresses the small insect, infusing in her the instinctive knowledge of how to exist in this world, a world which she has to share with humankind and countless other types of creatures. A beautiful literary device must be highlighted, namely that upon reading that God guided bees 'to follow the easy[135] ways of your Lord', the immediate impact on the reader/listener is to perceive how gently God speaks to this tiny creature that He has made, and for whom He has made it easy to follow the ways she has to live. There is also a double invitation

in Q. 16:68–9 for 'people who think' to, firstly, appreciate the benefits that bees offer – in addition to the honey and propolis that bees produce, the pollinating impact of bees (of which the environmental importance is now well-known) is directed by God to every fruit, thus increasing the benefits to all who consume fruit. Secondly, there is the more subtle invitation: if God, Creator and Lord of the whole cosmos is so mindful of even the smallest of creatures, the humble bee, then so too should humanity follow the ways of our caring and careful Lord. Q. 6:38 states that, 'there is no crawling creature on earth nor winged bird flying except they are communities like yourselves; We have neglected nothing in Our book; then to your Lord you are gathered'. The above verses indicate that humankind is not the only species in a relationship with God; non-human animals, too, have their relationships with God.

A particularly poignant animal reference in the Qur'an is to 'the she-camel of God' (*nāqat Allāh*), which is found in the verses about the prophet Ṣāliḥ's message to his people. According to the Qur'an, Ṣāliḥ said to his people: '[This is] the she-camel of God, so let her drink, but they denied him and hamstrung [/crippled] her.' (Q. 91:13–14.)[136] He also said: 'This she-camel of God is a sign from your Lord, so leave her to feed in God's earth and do not touch her with harm lest a painful punishment consume you.' (Q. 7:73; 11:64.)[137] And he said of the she-camel: 'she has a share of water and you have a share of water, on a recognised day'. (Q. 26:155.)[138]

The she-camel may be interpreted as a symbol of all animals, wild and domesticated. The scriptural ascription of the she-camel to God directly, then, signifies that all creatures belong to God, Lord of the Worlds. The injunctions, 'so let her drink' and, 'leave her to feed in God's earth' indicate i) the rights of animals to natural sustenance, ii) that the earth belongs to God, and iii), the rights of animals to free movement and freedom from abuse. The injunction in Q. 7:74, 'do not behave wickedly on earth, causing corruption', embedded in the story of the she-camel, adds to the point about not abusing animals. Furthermore, shared animal/human rights to water are presented in Q. 26:155, which states of the she-camel that, 'she has a share of water and you [people] have a share of water, on a recognised day', and in Q. 54:28, in which Prophet Ṣāliḥ is instructed, 'And inform them that water is an allotted share between them; each time of drinking[139] is [to be] attended.' By designating a share of water for the she-camel and a share for humans, the Qur'an indicates that all animals and people have a right to the water on earth.[140]

When unpacked, the precedents in this story for animal rights are clear and they condemn the mistreatment that people continue to inflict on animals, both wild and domestic. In the past, the arrogant people of Thamūd rejected their prophet's message and crippled the she-camel, thereby inflicting pain on her (torture), disabling her (removing her freedom of movement), and denying her the ability to feed and drink (deprivation of basic necessities). Today also, people have, in various

ways, crippled too many of God's creatures. The caging and exploitation of domesticated animals; the appalling captivity and humiliation of wild animals in zoos and circuses; the destruction of their natural habitats, which God created and to which wild animals are naturally entitled, and on which their survival depends; the replacement of this precious natural environment with unnecessary plantations and industries that feed human greed (while many other people starve and the animals die out). This is all in direct contravention of the ecological message of the Qur'anic verses on the she-camel. Such exploitation occurs when the profound unity in creation is ignored or forgotten.[141] The divine significance of this unity is indicated in Qur'anic phrases such as the following: 'Wheresoever you turn, there is the Face of God' (Q. 2:115); and 'He (God) is the First (*al-Awwal*) and the Last (*al-Ākhir*), the Manifest (*al-Ẓāhir*) and the Hidden (*al-Bāṭin*)' (Q. 57:3). Such verses point to the deepest existential relationship between humans and the rest of creation, a unifying relationship founded in God Himself, who is also described as the One, the Only (*al-Wāḥid, al-Aḥad*).[142] If humanity could only recall this profound unity, how differently would we then treat animals, the planet, and one another? As Pope Francis has stated (LS 11), 'if we feel intimately united with all that exists, then sobriety and care will well up spontaneously'.

9) LS 12 and the Qur'an on nature as a divine book

St Francis' invitation, noted in LS 12, 'to see nature as a magnificent book in which God speaks to us and grants us a glimpse of His infinite beauty and goodness' echoes the Qur'an's own approach to nature as a book of revelatory divine signs, which are to be contemplated, much like Scripture itself. This scriptural view of nature has already been discussed at some length, especially in Parts 3.3 and 3.5, in which the resonances between the Qur'an and LS 5 and LS 7–8 were highlighted.

LS 12 also cites the Bible on how the observation of creaturely beauty leads people 'to know by analogy their Maker' and on how God's 'eternal power and divinity have been made known through His works since the creation of the world'. Similarly, Laura Hassan has remarked that the Qur'an is 'insistent on celebrating the natural world as the supreme manifestation of the sovereignty and mercy of God'.[143] While the designation of 'supreme manifestation' may be queried, there is no doubt that the Qur'an presents physical nature as a theatre for, and evidence of, the manifestation of many of God's attributes, not least His creative action, power, and knowledge, and His merciful, nurturing providence. 'The Qur'an may be regarded in a certain sense as a grand hymn in honour of Divine creation,' declared Toshihiko Izutsu.[144] If we consider the Qur'an as a grand hymn in honour of divine creation, and nature as a book of revelatory signs like the Qur'an, then nature itself is a grand hymn in honour of its Creator. Nasr stated that 'Nature [is] a book which is the macrocosmic counterpart of the Qur'an itself.'[145] Said Nursi went further and viewed creation as 'the original form of revelation',

and the Qur'anic scripture as containing an explanation of it.[146] Creation reveals the hidden treasures of God Himself, according to the Sacred Saying, 'I was a hidden treasure and I loved to be known, so I created creation'.[147] The natural world, part of God's creation, is part of a profoundly sacred and autographed account of its Author.

With God as the author of the self-revelatory book of creation, the human being was identified as the main intended audience of this cosmic book (Part 1b.ii). Nursi called the universe 'the mighty Qur'an' and described the face of the earth as 'one page of this mighty book'.[148] He drew comparisons between reading the book of nature and reading the Qur'an: 'if the natural world is observed through the Qur'anic lens, then everything in nature would appear as a book and letters which can be read and understood by any careful student of the Qur'an'.[149] Özdemir suggests that the very first verse of the Qur'an to be revealed,[150] namely, the command, 'Read (*iqraʾ*) in the name of your Lord and Sustainer who created'[151] (Q. 96:1), may also be interpreted as encouraging, 'a completely new way of looking at the world… and that this reading [of the world] should be in the name of our Sustainer.'[152] In other words, to recall Ibn ʿArabī, humanity should read the universe through the lens of God's names.

Osman Bakar too highlights the Islamic view that nature is a sacred book, which 'contains precious spiritual messages for man's constant reflection so that he will come to know better its Author and Creator and thereby, will get closer to Him.[153] Elsewhere, Bakar pointedly observes that while Muslims would never think of burning or damaging the Qur'an, many of them are silent while the other Book (of creation) is being damaged.[154] Referring to nature as, 'the book of the universe', Özdemir also observes the implication that the universe, like the Qur'an, reveals to us the existence of a Sustainer and Creator, and that it may therefore be deduced that the universe has been entrusted to humanity to preserve and protect it; just as Muslims treat the Qur'an with respect and awe, we should treat the book of the universe with love and respect.[155]

The way in which humanity has responded to the role of being the main intended audience (at least on earth) of the book of creation is, in effect, the story of human history. Generation by generation, we are each individually accountable.[156] Do we modern humans, in the reading of it, continue to desecrate this incredible and intricate, exquisite and thought-provoking, challenging and life-fulfilling book? Do we extinguish the diversity of characters, the diverse life-forms on earth? And do we ruin the life-sustaining setting of this book, planet earth? Do we spiritually and physically destroy the main audience and principal actors on earth, ourselves? Or will we think and behave reasonably, as urged to in so many Qur'anic verses? Will we 'read' the work, so wisely and lovingly authored, in a correspondingly loving and wise manner, and disclose the hidden divine treasures and use them in a balanced, measured way? Will we successfully turn (*tāba*) to a better way of living, so

that 'all manner of thing shall be well' (to echo the words of Sayyidnā ʿĪsā (Jesus) ﷺ to Dame Julian of Norwich)?[157] With the grace of God and the help of heaven, may we do so now; may the divine wisdom placed in the human being[158] manifest ever more increasingly in and through every person, all as pleases God. Amen.

Praise to God, Lord of the Worlds, and in Him we seek help. Amen.

Wa'l-ḥamdu li'Llāhi Rabbi'l-ʿālamīn, wa bihi nastaʿīn. Āmīn.

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[1] See 'The Canticle of Creatures', Francis of Assisi Academy for Planetary Health, https://www.laudatosi.org/the-letter/the-canticle-of-creatures/ and Pascal Robinson, (transl., 1905), 'The Canticle of the Sun', at sacred.texts.com, https://sacred-texts.com/chr/wosf/wosf22.htm.

[2] The Qur'an has 114 chapters and a total of 6,236 verses. St Francis' canticle has less than fifty lines in total, as found in English translations. This is not to place the two in the same category. Muslims make a sharp distinction between Revelation (*waḥy*) of the Qur'an's category on the one hand and, on the other, inspiration (*ilhām*), the category in which St Francis' canticle would be placed.

[3] The Qur'an's 'occasions of revelation' are technically called *asbab al-nuzūl*.

[4] The 'straight way' renders the Arabic phrase *al-ṣirāṭ al-mustaqīm*. The verb from which the word *mustaqīm* is derived is *istaqāma*, which denotes 'physical uprightness', 'moral soundness' and 'integrity'; hence 'straightness' and 'even-handedness'. There is a strong implication of 'balance': a path can only be level if it is balanced and a person who is morally sound is usually a balanced human being.

[5] The category of those 'upon whom is anger' refers primarily to those who through their own grave sins, and remaining unrepentant, incur divine righteous retribution. Reza Shah-Kazimi notes that 'in the mystical tradition of Islam it is said that the 'Anger of God' is nothing but the extrinsic consequence of the lack of the soul's receptivity to the mercy that eternally radiates from the very nature of being'; Reza Shah-Kazimi, *My Mercy Encompasses All* (Berkeley: Shoemaker & Hoard, 2007), p. 10. The category may also include perpetrators of sins or crimes who remain unforgiven by their victims.

[6] This English translation is taken from 'The Canticle of Creatures', Francis of Assisi Academy for Planetary Health, https://www.laudatosi.org/the-letter/the-canticle-of-creatures/.

[7] See Edward W. Lane, *Arabic-English Lexicon*, vol. 6 (London: Williams and Norgate, 1863-1893), pp. 2140–2141.

[8] The word *rabb* denotes both 'Lord' and 'Nurturer', as discussed in Part 1b.ii, under *Lordship and nurturing care*.

[9] See for example, Part 1a.iii, *Thematic summary of Laudato Si'*. In his article comparing the environmental care manifested by Pope Francis and by the 20th century Muslim spiritual master Said Bediuzzaman Nursi (d. 1960), Ibrahim Özdemir underlines how Said Nursi's profound attitude of thankfulness to God for His bounties in His creation is reflected in Pope Francis' choice of the words *Laudato Si'* for his encyclical *On Care for our Common Home*; see Özdemir, 'Common Care', pp. 91–94.

[10] For example, Q. 10:6; Q. 12:105; Q. 36:33. Much more on divine signs further in the book.

[11] Cf. LS 87, which cites part of St Francis' canticle, including his thanks for water: 'Praised be You, my Lord, through Sister Water, who is very useful and humble and precious and chaste.'

[12] For example, Q. 16:10–11; Q. 36:33–35; Q. 23:18–19; Q. 56:63–64, 68–69, 71–72.

[13] For example, Q. 13:16; Q. 21:56. Numerous Qur'anic verses ascribe everything that is in the heavens and the earth as belonging to God. See for instance Q. 5:17, 18; Q. 5:120; Q. 7:158, which describe God as 'the One to whom belongs the sovereignty of the heavens and the earth'; and Q. 2:117; 3:109, 129; 4:126, 131.

[14] Q. 114:1.

[15] As Brian Cox points out in his documentary discourses on the universe; see for example, Brian Cox, 'How did life begin on earth?', BBC, 2 November 2021.

[16] The topic of the physical and spiritual constitution of the human being is dealt with in more depth in Part 3.4 (on LS 6 and 9).

[17] In the Qur'an, the phrase 'what their/your hands have acquired/earned' (*mā kasabat aydīhim/aydīkum*) is used to refer to what people have done and the consequences of that. On Q. 30:41 see also Part 2a.ii.

[18] These qualities are indicated by the divine names: 'the All-Gracious' (*al-Raḥmān*), 'the Merciful' (*al-Raḥīm*), 'the Just' (*al-ʿAdl*), 'the Equitable' (*al-Muqsiṭ*), 'the Preserver' (*al-Ḥafīẓ*).

[19] More on this in 3.4.iii.

[20] Q. 114:1: *Rabbi'l-nās*; Q. 44:7: *Rabbi'l-samāwāti wa'l-arḍi wa mā bayna humā*.

[21] The implications of this verse for climate justice (with particular regard to inter-generational justice) and for the equitable shouldering of the economic costs of making changes to diminish the rate of climate change were discussed in Part 2a.ii.

[22] Discussed in part 2b.iii.

[23] The Arabic *innahū ʿalīmun bi-dhāti 'l-ṣudūr* literally rendered is: 'He knows the essence of the breast/chest', and signifies that God knows the deepest, most secret thoughts and emotions of His creatures. From this phrase comes the divine designation, 'Knower of the deepest thoughts and feelings', *ʿAlīmun bi-dhāti 'l-ṣudūr*.

[24] As noted by numerous scholars; see for example, Özdemir, 'Environmental Ethics', pp. 20–22.

[25] Cf. Zeshan Akhter, 'Wild in the Forest', *Critical Muslim 19: Nature*, edited by Ziauddin Sardar (London, 2016), p. 126.

[26] Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', p. 232.

[27] Cf. Özdemir, 'Environmental Ethics', p. 21.

[28] Özdemir, *The Ethical Dimension of Human Attitude Towards Nature*, 2nd ed. (Istanbul: Insan Publications, 2008), p. 159.

[29] See Part 3.8.ii for the full translation of Q. 16:68–69.

[30] These animal verses are discussed at greater length in Part 3.8 on LS 11 and Qur'anic resonances regarding creation's praise of God and perspectives on animals.

[31] While humanity definitely has a creative ability – thanks to God placing it in us – we cannot create ex-nihilo. We use what already exists and harness the God-endowed functions/capacities/properties already present in things. All human invention is a discovery of the pre-existing properties in things and their potential uses, combinations, and mutations, and how that might be manipulated to our advantage, or, to our disadvantage (for instance in biological/chemical warfare).

[32] While there are innumerable Qur'anic references to God creating/making things, these specific divine names are also presented in the Scripture. See for example, Q. 59:24; Q. 36:81; Q. 2:117; Q. 2:21; Q. 51:58; Q. 4:85.

[33] See for example, Q. 36:71–73; Q. 6.142; Q. 16:5–7, 18; Q. 40:80.

[34] The names of mercy stem from the verbal root *r-ḥ-m* (to be merciful), as does the word for mercy itself; see Part 1b.iii on mercy. The divine name of lovingness (*al-Wadūd*, 'the Deeply-Loving') and the word for 'love/loving friendship' (*mawaddah*) stem from the verbal root *w-d-d* ('to love'; 'to show friendship'); Badawi and Haleem, *Qur'anic Usage*, p.1017; Lane, *Lexicon*, pp. 2931–2932.

[35] The Arabic verb for 'knowing each other mutually' (*taʿārafa*) signifies 'mutual acquaintance, getting to know each other' and 'learning about each other'. Contextually, it has strong implications of mutual respect – far removed from fascism, disempowerment, slavery, ethnic cleansing, and genocide. The previous two verses (Q. 49:11–12) caution humanity against defamation of others, the use of offensive names (contemporary examples would be 'nigger', 'Paki', 'rag-head', 'freak'), excessive suspicion, spying on each other, and slander/gossip. Sadly, such behaviour is all too common (for instance, racial abuse continues to manifest in different parts of the world, be that at the state, institutional or individual level), and some types of behaviour are even normalised in many societies today, for instance, mutual spying is accepted as part and parcel of geo-politics.

[36] *ʿAlīm* and *khabīr* are among the divine names; see Appendix, 1(b) for the pertinent syntactical formulation.

[37] See Part 2b.iv for a detailed discussion of the concept of divine and cosmic unity (*tawḥīd*).

[38] Özdemir, 'Environmental Ethics', p. 22.

[39] As noted in the Introduction of this book, Q. 2:115 was revealed in the context of a historical issue concerning which way Muslims should turn during their prayers. Notwithstanding that, the literal wording issues an invitation to understand that we face God's face, whichever direction we turn in.

[40] Lane, *Lexicon*, vol. 1, p. 321. The opposite of *tāba* is *tawallā* (intransitive fifth form of the root *w-l-y*), meaning 'to turn away from' (Badawi and Haleem, *Qur'anic Usage*, p. 1047–1048; Lane, *Lexicon*, vol. 8, p. 3060). *Tawallā* is often used in the Qur'an with regard to those who turn away from God and His messengers,

rejecting their God-given guidance – an act which is condemned. See Q. 3:63, 'And if they turn away; verily God knows the corrupters (*mufsidīn*)'. Q. 8:40 has both the negative and positive aspects of the *w-l-y* verbal root: 'And if they turn away (*tawallaw*), then know that God is your Patron (*Mawlā*), the best Patron and the best Helper (*Naṣīr*)'.

[41] Lane, *Lexicon*, vol. 2, p. 680. *Aḥyā* is the fourth form of the verbal root *h-y-y*, which has the fundamental meaning of 'being alive', 'living' – hence the divine name 'the Living' (*al-Ḥayy*); Lane, *Lexicon*, vol. 2, p. 679.

[42] The same word - *muḥyī* – is used in a narrative ascribed to the Prophet, which states that at the start of every century (of the Islamic calendar), God will send a person who is a 'renewer of the faith' (*muḥyī'l-dīn*). Both al-Ghazālī and Ibn ʿArabī, much cited in Parts I and 2, were accorded this venerable title. Ghazālī's magnum opus is called *Iḥyāʾ ʿulūm al-dīn*, usually translated as 'The Revival of the Religious Sciences'.

[43] See Part 3.4.iii for a discussion of humankind as deputies, successors, and stewards on earth.

[44] See Part 2a.ii on climate justice, where it is noted that Farhana Yamin advises the ordinary person to help shift to a better, cleaner economy by altering habits of consumption of food, fashion, and fuel, and by divesting away from the 'dirty old economy and into a new, cleaner economy'; How We're Going to Solve Climate Change - Farhana Yamin | Farhana Yamin | TEDxKingsCross - YouTube.

[45] Australian Catholic Bishops' Conference, *A New Earth – The Environmental Challenge* (2002), cited in LS 218.

[46] Toshihiko Izutsu identified '*Allāh*' as the most important semantic concept in the Qur'an: the 'supreme focus-word […] which presides not only over one particular semantic field within the [Qur'anic] vocabulary but over the entire vocabulary comprising all the semantic fields, that is, all the smaller conceptual systems that fall under it'; Toshihiko Izutsu, *God and Man in the Koran: Semantics of the Koranic Weltenshauung* (Tokyo: Keio Institute of Cultural and Linguistic Studies, 1964), pp. 36–37.

[47] There are too many verses referring to that day to cite here, but in addition to the verses discussed in this section, see also, Q. 1:4; Q. 2:48, and Q. 2:123 which is translated in Part 3.2.

[48] See Part 3.1 on LS 1–2 for a full translation of this short chapter.

[49] It is this author's view that this verse may also be interpreted as a text for intercession by the innocent. A person burdened by sins, or by a particular type of sin, cannot take on the similar burdens of another person. However, the unstated implication of the Qur'anic words is that an unburdened person may take on the burden of those who are burdened. In other words, the person who is innocent of sin (*maʿṣūm*), or innocent of a particular type of sin, may take on the burdens of the sins of others and intercede with God for their forgiveness. For Christians, the example par excellence for such existential intercession is, of course, Jesus Christ himself.

[50] For other verses using similar terms, see Q. 6:152; Q. 7:42; Q. 23:62; Q. 65:7, among others.

[51] As scientists are now able to inform us, the chemical compounds of which the earth and our own physical bodies are made, are the very same as those found in our whole solar system, and in our sun; indeed in all stars as far as we currently know.

[52] See Part 2b.iv, and Part 3.3.

[53] 'In each living (human) there is what Ibn al-ʿArabī called a differentiated particular spirit (*rūḥ juzʾī*) born of the undifferentiated divine spirit which he also called "the Universal Spirit" (*al-rūḥ al-kullī*)'; William C. Chittick, 'The Self-Disclosure of God', p. 272, cited in Bakar, *Qur'anic Pictures*, pp. 159–160.

[54] Lane, *Lexicon*, vol. 2, pp. 797–798; Badawi and Haleem, *Qur'anic Usage*, p. 281.

[55] Mir, *Qur'anic Terms*, pp. 35–36. Koláček, pp. 243–4, also distinguishes two meanings for the term: 'anthropological' and 'political'.

[56] Mir, *Qur'anic Terms*, p. 35. The nature of this responsibility or trust (*amānah*) is interpreted as being either vicegerency, or free will, or intellect; see Badawi and Haleem, p. 52.

[57] Mir, *Qur'anic Terms*, p. 35.

[58] Mir, *Qur'anic Terms*, p. 35–36.

[59] 'To God belong the east and the west; wheresoever you turn, there is the face of God (*fa-aynamā tuwallū fa-thamma wajhu'llāhi*); verily God is comprehensive (*wāsiʿ*), knowing (*ʿalīm*).'

[60] Saadia Chishti relates 'the pervasive presence of Allah' particularly to the divine name *al-Muḥīṭ*, which she renders as 'the divine environment'; see Chishti, *Fiṭrah*, p. 73.

[61] For example, see Fakhr al-Dīn al-Rāzī, *al-Tafsīr al-kabīr aw Mafātīḥ al-ghayb*, ed. by Aḥmad Shams al-Dīn (Beirut: Dār al-Kutub al-ʿIlmīyah, Volume 13, Book 25), p. 105, where, in the comments on Q. 30:30, the exegete stated: 'He (God) expressed the 'essence' (*dhāt*) by (the word) 'face' (*wajh*), as the Most High said 'everything is perishing except His face', that is, His essence with His attributes (*dhātuhu bi-ṣifātihi*).'

[62] The full verse is 'So set your face to religion (*dīn*) rightly-inclined (*ḥanīfan*), God's nature/character according to which He cleaved/created humanity (*fiṭrata'llāhi'llatī faṭara'l-nāsa ʿalayhā*); no change to God's creation; that is the right religion (*dīn*), but most people do not know.'

[63] Bakar, *Environmental Wisdom*, p. 74.

[64] *Fī'l-arḍ*: 'in/on the earth'. The Arabic preposition *fī* means 'in' but can also denote 'on', especially in phrases such as this. There is no reason to discount either meaning for this clause, since both senses are pertinent.

[65] The Arabic verb *afsada* means to 'corrupt', 'spoil', 'ruin', 'destroy', 'weaken', 'denigrate', 'depreciate', 'act evilly'; see Lane, *Lexicon*, vol. 6, p. 2396.

[66] Bakar, *Environmental Wisdom*, pp. 75–76.

[67] See also Part 1b.ii and Part 1 endnotes 16 and 17.

[68] As noted earlier in this study (Part 1b.i), different interpretations of the same Qur'anic verses are not necessarily mutually exclusive, rather, each can be applicable in its own way.

[69] Bakar, *Environmental Wisdom*, p. 76.

[70] In Q. 43:60, the Qur'an states in the divine voice: 'Had We willed We could have placed among you angels as successive deputies on earth.'

[71] Echoing Q. 15:28–29, as discussed. This is why humanity may be considered to be a more complete expression of the divine names than the angels – because humans, made of earth, manifest the names in and on earth, as well as in our souls, spirits, and essence. According to different spiritual masters, not least Ibn ʿArabī and Jaʿfar al-Ṣādiq, these four microcosmic levels (body, soul, spirit, essence) correspond to the levels of the macrocosm, and to divine levels.

[72] Munjed M. Murad, 'Vicegerency and Nature', in *Critical Muslim 19: Nature*, edited by Ziauddin Sardar (2016), p. 94.

[73] As noted, Mir (p. 35) also observes this with regard to Q. 67:2.

[74] Inter alia, the last part of Q. 6:165 is a good example of how the principle of equipoise frequently marks the Qur'anic presentation of divine names, whereby a stern attribute is immediately followed by a reminder of a clement aspect of God. See Introduction, Part 1b.ii, for more on counterpoise between divine designations.

[75] Muḥyī'l-Dīn Muḥammad ibn ʿAlī ibn ʿArabī, *Fuṣūṣ al-Ḥikam*, edited by Abū'-lʿAlāʾ ʿAfīfī (Beirut: *Dār al-Kutub al-ʿArabī*, n. d.), p. 50, where Ibn ʿArabī discusses 'the divine wisdom in the Adamic word'.

[76] *Fa-fīnā binā yataṣarrafu kamā naḥnu bihi fīhi naẓharu*; (Ibn ʿArabī, *al-Futūḥāt al-Makkīyah*, vol. III, p. 451), where Ibn ʿArabī is discussing God's names. James W. Morris has the following translation of this passage: 'so it is in us and through us that He acts, just as we (only) appear in Him and through Him' (Morris, *Spiritual Ascension*, vol. I, p. 641).

[77] This relates to what Mir said about human free will – that it has been granted to see if humans choose to follow divine guidance or not (Mir, *Qur'anic Terms*, pp. 35–6). Koláček notes that deputyship points to the limited nature of human authority, and to humanity's responsibilities and obligations to follow the divine will (Koláček, 'The Qurʾān as a Source for Contemporary Islamic Environmental Ethics', p. 244.)

[78] Bakar, *Environmental Wisdom*, p. 36.

[79] Bakar, *Environmental Wisdom*, p. 38.

[80] Bakar, *Environmental Wisdom*, p. 38.

[81] This can be related back to Q. 7:172, discussed in Parts 2a.ii and 3.2.i.

[82] See Part 2b.v and 2b.vi.

[83] Özdemir, 'Environmental Ethics', p. 17.

[84] Saadia K. Khan Chishti, '*Fiṭrah*: An Islamic Model for Humans and the Environment', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge MA: Harvard University Press, 2003), p. 80.

[85] To give one example, see al-Rāghib al-Iṣfahānī (d.c. 1108), *al-Mufradāt fī gharīb al-Qurʾān*, eds. Aḥmad Maṭlūb & Khadījah Al-Ḥarīthī (Tehran: al-Maktabah al-Murtaḍīyah, 1953), p. 274, where al-Iṣfahānī describes the phrase 'God's anointment' (*ṣibghat Allāh*; Q. 2:138) as an indication of the intellect (*ʿaql*) which God has engendered in humanity (*al-nās*) and by which (humanity) is distinguished from beasts; Iṣfahānī adds 'like the *fiṭrah*'.

[86] Seeking refuge from the punishment of fire is particularly poignant today when rising global temperatures are exacerbating wildfires around the globe, causing increasing droughts and heatwaves in parts of Africa, and causing record levels of heat in parts of the Middle-East (Patrick Wintour, '"Apocalypse soon": Reluctant Middle East forced to open eyes to climate crisis', *The Guardian*, 29 October 2021,

https://www.theguardian.com/environment/2021/oct/29/apocalypse-soon-reluctant-middle-east-forced-to-open-eyes-to-climate-crisis).

[87] 'We [humans] are nature's most magnificent creation', Brian Cox, *Universe* (BBC2, 2021), Episode 1, God-Star aired 27 October 2021. As noted in an article in *The Guardian*, Cox warned that 'humans might be the only intelligent beings in our galaxy'. Cox also suggested it is possible that 'if this planet [earth] weren't here, we'd live in a meaningless galaxy… There's a difference between life and intelligent life'; see Tara Conlan, 'Earth's demise could rid galaxy of meaning, warns Brian Cox ahead of COP26', *The Guardian*, 19 October 2021.

[88] Elmore, 'Four Texts', pp. 7–8; see Part 1b.ii.

[89] Bakar, *Environmental Wisdom*, p. 51.

[90] For example, Q. 13:16; 21:56, and similar designations are found in Q. 5:17, 18; 5:120; 7:158.

[91] Q. 114:1.

[92] This triple relationship has been noted by many scholars in different religious traditions. For some Muslim perspectives, see Sajad Rizvi, 'God, Cosmos, and Humanity: Muslim Perspectives on Divine Providence' in *Abrahamic Reflections on Randomness and Providence*, edited by Kelly James Clark and Jeffrey Koperski (Palgrave Macmillan, 2022), pp. 199–220, https://doi.org/10.1007/978-3-030-75797-7_10, in which the author addresses the 'plurality of Muslim voices, of interpretations on scriptural and rational grounds to understand the three realities' (p. 201) which he has earlier defined as 'God, the microcosmic human that is both the face of the divine and the reflection, the mirror, of the cosmos back to God, and the cosmos that manifests the signs of God in the horizons' (p. 200).

[93] Özdemir, 'Environmental Ethics', p. 8.

[94] The relationship between humanity and the rest of creation delineated by these Qur'anic passages resonates with the phrase 'sublime fraternity with all creation' in LS 221.

[95] See Part 3.3.i, on *Physical nature as signs of God*.

[96] See Part 3.3.ii, on *Humanity itself as a sign of God*.

[97] Cf. Charles Upton, 'Concepts and Symbols' in Ziauddin Sardar (ed.) *Critical Muslim 19: Nature*, p. 23: 'We think of nature as something outside of us which also contains us, instead of realising that the Spirit of nature – God in His Names… – is within us as well as all around us, that He holds both us and the universe we are a part of between His two hands.'

[98] Bakar, *Environmental Wisdom*, p. 74.

[99] See Lane, *Lexicon*, vol. 5, p. 1920–1921. The verbal root *ẓ-l-m* denotes, 'oppression', 'injustice', 'to act wrongly', 'to cause suffering'; 'moral and physical darkness'; see Badawi and Haleem, *Qur'anic Usage*, p. 585.

[100] Bakar, *Qur'anic Pictures*, p. 137.

[101] See Part 2b.vi, where I note how a person's choice to act in harmony with a divine quality extends the spiritual light of that quality, while the choice to act in opposition to a divine quality blocks the spiritual light of that quality and creates an equivalent darkness, all of which have tangible consequences.

[102] This is how the Qur'an refers to Jesus Christ; see for example, Q. 3:45: 'When the angels said, O Maryam, indeed God gives you good, gladdening news of a Word from Himself, whose name is al-Masīḥ ʿĪsā ibn Maryam, exalted in this world and the hereafter; among those near (to God).'

[103] Mark 8:36.

[104] For instance through terrestrial and marine rewilding, which presents one of the most realistic hopes of coming out of the human-made global crisis; see Global Rewilding Alliance - WILD Foundation and famous marine biologist and ecologist Enric Sala's *The Nature of Nature: Why We Need the Wild*, of which Cardinal Turkson states that the author 'is inspired by the wonder and the miracle that he discovers our planet to be and argues that we are able to recover and safeguard this gift of God – the planet's uniquely distinctive endowment with life – only through our joyful contemplation of the mystery of our planet's being and functioning, as Pope Francis has also observed.' See Enric Sala, *The Nature of Nature* (Washington, D.C.: National Geographic, 2020), https://www.enricsala.com/the-nature-of-nature.

[105] Cf. Q. 6:12: 'He has inscribed mercy upon Himself', which is discussed in Part 1b.ii, in the subsection on *raḥmah* (mercy).

[106] The verb *aslaḥa*, rendered here as 'makes amends', denotes all the following: to make good, put right, rectify, redress, place in a good, sound state, to restore to soundness, to adjust, repair, amend, improve (Lane, *Lexicon*, vol. 4, p. 1714); to make peace, reconcile, to agree to a settlement, to mend, put right, cure heal, to cause to be good, upright, to make amends, to do right, behave justly (Badawi and Haleem, *Qur'anic Usage*, pp. 531–532); and making reparations, restitution, rebuilding, mending, improving, remedying, making peace, reconciliation (Hans Wehr, *Dictionary*, pp. 521–522).

[107] Cf. Pope Francis' statement in *Querida Amazonia,* paragraph 58: 'A sound and sustainable ecology, one capable of bringing about change, will not develop unless people are changed, unless they are encouraged to opt for another style of life, one less greedy and more serene, more respectful and less anxious, more fraternal.'

[108] See Part 2 of the Appendix for more divine designations.

[109] Saadia Khan Chishti, '*Fiṭrah*: An Islamic Model for Humans and the Environment', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge MA: Harvard University Press, 2003), p. 77. Cf. my discussion of Q. 30:30 and *fiṭrah* in Part 2b.v and 2b.vi.

[110] Even though the verse has a specific historical and contextual reference, nonetheless it points to a general principle that wealth should not be circulated/distributed only among the rich.

[111] The Arabic for what I have translated as 'homeless' is literally 'the son of the road'. Some translators render it as 'wayfarer'. Taken idiomatically the phrase refers to those who have no home but the street; hence my rendition.

[112] The two common renditions of '*alā ḥubbihī* are 'for His love' or 'despite (the person's) love of wealth' – either of which is perfectly acceptable. My preferred reading is based on the fact that the preposition '*alā* can also mean 'according to, in keeping with' and can be used as a synonym for the particle *bi*, e.g., '*alā yadihi* means 'by the hand of' (Lane, *Lexicon*, vol. 5, pp. 2145–2146). This interpretation of being generous by or through God's own loving generosity seems to me more congruent. Moreover, in light of the polysemous nature of many Arabic words, it is entirely conceivable that '*alā* was used deliberately in this phrase, as opposed to *bi* or *li*, in order to simultaneously imply all three meanings – which is difficult to capture in translation, as Joseph Lumbard notes (Joseph Lumbard, 'The Qur'an in Translation', in Nasr et al., *The Study Qur'an: A New Translation and Commentary* (HarperOne, 2015), p. 1603).

[113] *Muttaqūn*, has the fundamental meanings of being: 'God-fearing', 'godly', 'devout', 'pious'; see Ambros & Procházka, p. 294; Badawi & Haleem, p. 1043. Having discussed *birr* as positive piety, Mir frames *taqwā* as a 'negative virtue' that restrains a person from sinful actions (Mir, pp. 156–57). Leah Kinberg posits *birr* as 'anchored in and stimulated by the feeling of fear of the one God (*taqwā*), which is the fear of the consequences of actions that violate the values included under *birr*' (Kinberg, 'Piety', *Encyclopaedia of the Qurʾān*, pp. 90–91). Nicolai Sinai identifies *taqwā* – 'an attitude of fearful wariness' – as the central, transformative virtue of early Qur'anic verses, often linked to material charity and devout prayerfulness; he further notes the strong affinity of Qur'anic *taqwā* with the Syriac-Christian concept of *deḥlā* (Sinai, *Historical-Critical Introduction*, pp. 165–166).

[114] The idea of a continuity of divine qualities in human virtue, and the word *barr*, were discussed in Part 2b.vi, section 'From theological descriptions to normative prescriptions'.

[115] 'The Prophet said, "I and the guardian of an orphan will be in the Garden [Paradise] like that," indicating his forefinger and middle finger.' Muḥammad al-Bukhārī, *Al-Adab al-Mufrad*, Book 7, *Ḥadīth* #135, https://sunnah.com/adab/7. Accessed 7 November 2022.

[116] The Arabic verb is *ẓalama*, which is discussed in Part 3.5.

[117] It is reported that the Prophet ﷺ advised helping both the oppressed and also the oppressor (with the latter to be advised on how to stop oppressing others). See Kori Majeed & Saarah Yasmin Latif (compilers), *Forty Green Ḥadīth: Sayings of the Prophet Muḥammad ﷺ on Environmental Justice and Sustainability* (n.p., 2020), p. 39. Available at forty-green-hadith.pdf (cambridgecentralmosque.org). Accessed 7 November 2022.

[118] al-Nawawī, Yaḥyā ibn Sharaf, *Riyāḍ al-Ṣāliḥīn*, Book 1, *Ḥadīth* #516; https://sunnah.com/riyadussalihin:516. Accessed 7 November, 2022.

[119] Majeed & Latif, *Forty Green Ḥadīth*, pp. 14–23 present several narrations on the Prophet's sayings regarding the treatment of animals.

[120] The Prophet is reported to have said: 'Verily God is gentle and He loves gentleness in all things'; *Ibn Mājah*, Book 33, *Ḥadīth* # 3689, https://sunnah.com/ibnmajah:3689.

[121] Majeed & Latif, *Forty Green Ḥadīth*, p. 11

[122] Majeed & Latif, *Forty Green Ḥadīth*, p. 1.

[123] Majeed & Latif, *Forty Green Ḥadīth*, p. 10.

[124] Tradition has it that it was in one such retreat that the Archangel Gabriel first manifested to Muḥammad and inspired him with the first verses of the Qur'an (Q. 96:1–5); see Muḥammad al-Bukhārī, *Ṣaḥīḥ Bukhārī*, Book 1: Revelation, *Ḥadīth* #3, https://sunnah.com/bukhari/1. This vision and another exalted one are referred to in some of the most mystical passages of the Qur'an, namely, Q. 53:1–18.

[125] His wife ʿĀishah reported how the Prophet 'used to pray for a long time standing and for a long time sitting in the night' and would recite the Qur'an standing and sitting; see *Ṣaḥīḥ Muslim*, Book 4, Chapter 109, Ḥadīth #1587.

[126] This is in addition to the Qur'anic exhortation to humanity 'to extoll the praise of your Lord, before the rising of the sun and before its setting, and at times of the night praise (God), and at the edges of the day, that you may be content' (Q. 20:130). These, together with Q. 17:78, delineate the timeslots for the five daily Islamic canonical prayers. Moreover, the Qur'an also describes how those in God's presence do not deem themselves too proud to worship Him, nor do they tire of praising Him, rather 'they glorify (God) night and day and are not remiss' (Q. 21:19–20). This may refer to angels, or to humans, or both. It should be borne in mind that praise is not to be understood only in terms of formal prayer. Rather every good action aligned with divine attributes is an act of praising God. As noted in Part 2b.vi, when environmentalists and conservationists work to preserve the earth, its nature and endangered species, thereby protecting the planet and its bio-diversity, or when vets look after the health of animals, or when governments enact policies favourable to social justice, or (as is more often the case) individuals help look after and empower the poor and marginalised – these are all acts that glorify God because they extend His attributes of care (*tarbiyah*), provision (*rizq*), enablement (*qudrah*), preservation (*ḥifẓ*), justice (*ʿadl*), balance and equality (*taʿādul*), equitableness and moderation (*qisṭ*).

[127] Özdemir, *Ethical Dimension*, pp. 161–162.

[128] A distinction should be understood between 'reasonable use of' and 'damage'. Reasonable use is sustainable, moderate, and respectful. Damage is rapacious, exhausts the resource, and is disrespectful towards the entity being used, e.g., animals. Cf. LS 33.

[129] Özdemir, 'Common Care', p. 102.

[130] Özdemir, 'Common Care', pp. 102; 100; 105 respectively.

[131] Ibrahim Özdemir, 'Towards an Understanding of Environmental Ethics from a Qur'anic Perspective', in *Islam and Ecology: A Bestowed Trust*, edited by Richard C. Foltz, Frederick M. Denny and Azizan Baharuddin (Cambridge, MA: Center for the Study of World Religions, Harvard Divinity School, 2003), p. 19.

[132] Bakar, *Environmental Wisdom*, p. 56.

[133] Q. 27:18. Q. 27:19 tells of Solomon hearing and understanding the tiny ant's warning; he laughs and immediately prays to God, thanking Him for His gifts… and that he, Solomon, will do good that is pleasing to God.

[134] See Part 3.3.i (section on 'Physical nature as signs of God').

[135] The Arabic plural *dhululan* in this verse, signifies something being 'easy', 'manageable', 'tractable' (Lane, *Lexicon*, vol.3, p. 973).

[136] The other places in the Qur'an which refer to the she-camel of God and Prophet Ṣāliḥ's message regarding her are: Q. 7:73–77; 11:64–68; 17:59; 26:155–158; 54:27–30. The gist of all is the same.

[137] The warning of a painful punishment that consumes humanity in the wake of the latter's abuse of animals and their rights cannot be ignored. The cataclysmic consequences of climate change currently manifesting in increasing wildfires, floods, and other such changes, are interwoven with human industrial exploitation of animals.

[138] See also Q. 54:28. Both these verses present shared animal/human rights to water.

[139] Alternatively, the word '*shirb*' could be translated as 'use of water'.

[140] Cf. LS 27–31, which address the issue of water and access to it. On the subject of water, with the Qur'an being revealed in a desert landscape, there is no need to state how important the role of water is for all inhabitants of such a dry landscape. There are sixty-three instances of the word for water (*māʾ*) in the Qur'an (see Muḥammad Fuʾād ʿAbd al-Bāqī, *Al-Muʿjam al-mufahras li-alfāẓ al-Qurʾān al-karīm,* Cairo, Dār al-Kutub al-Miṣrīyah, 1364/1945, p. 684), referring to rain water, freshwater, saltwater seas, and, in a few instances (e.g., Q. 77:20; 86:6), the bodily fluid from which humans are conceived. Q. 21:30 states categorically that God made every living thing from water, and Q. 24:45 states that every animal has been created by God from water. Regarding access to water, James L. Wescoat Jr. unpacks the issue of animals' access to water as an 'Islamic right' in his article dealing with 'the right of thirst' (James L. Wescoat Jr., 'The "right of thirst" for animals in Islamic law: a comparative approach', *Environment and Planning D: Society and Space* 13 (1995), pp 637–654.) He notes (pp. 641–2) that the Qur'anic verses on water for animals can be categorised into four groups: 1) verses on rain as a blessing for both animals and human beings; 2) verses on water that is used for domestic animals, in particular livestock; 3) verses on Moses defending the right of the Midianite shepherdesses to water their flocks at the well; and 4) the verses on the she-camel of God.

[141] For the discussion of divine unity (*tawḥīd*), Q. 112, the divine names *al-Aḥad* and *al-Wāḥid*, and the inter-connection of creation, see Part 2b.iv.

[142] See Q. 112:1 for *al-Aḥad*; and Q. 16:22, among several other verses, for *al-Wāḥid*.

[143] Laura Hassan, 'Investigating God, Investigating Nature', *Critical Muslim 19: Nature*, edited by Ziauddin Sardar (London, 2016), p. 55.

[144] Toshihiki Izutsu, 'God and Man in the Koran: Semantics of the Koranic Weltenshauung' (1964), pp. 127–8, also cited in Laura Hassan, 'Investigating God, Investigating Nature', in *Critical Muslim 19: Nature* (London, 2016), p. 56.

[145] Seyyed Hossein Nasr, *An Introduction to Islamic Cosmological Doctrines*, (revised edn), London, Thames and Hudson, 1978, p. 2, footnote 2.

[146] Özdemir, 'Common Care', p. 103.

[147] See Part 2 endnote 210 for details on this Sacred Saying (*ḥadīth qudsī*).

[148] Özdemir, 'Common Care', p. 105.

[149] Özdemir, 'Common Care', p. 105.

[150] Chronologically, the first words of the Qur'an that were revealed to the Prophet ﷺ are contained in the 96th chapter. As explained in the Introduction Part 1b.i, the canonical arrangement of the Qur'anic text is not chronological.

[151] This is Özdemir translation, 'Environmental Ethics', p. 7. *Iqra'* means both 'read' and 'recite'. Traditionally it is held that the Prophet ﷺ was illiterate and that when commanded by the Archangel Gabriel to 'Read', the Prophet replied, 'I cannot read'.

[152] Özdemir, 'Environmental Ethics', p. 7.

[153] Bakar, *Environmental Wisdom*, p. 26.

[154] Osman Bakar, speaking at the webinar launch of his book, 'Special Lecture & Book Launching: Environmental Wisdom for Planet Earth-The Islamic Heritage' [video], *YouTube*, 9 February 2022 (CCD UM, 2022), https://youtu.be/JmPDV29T_cU?t=4380, at 1hr:13ff mins of the video. Accessed 18 October 2022.

[155] Özdemir, 'Environmental Ethics', pp. 21–22.

[156] Cf. Q. 2:141, and the discussion of human accountability in Part 3.4.i.

[157] Julian of Norwich, *Revelations of Divine Love*, 'The Thirteenth Revelation', Chapter 27, pp. 55, 56; Chapter 31, p. 60; Chapter 32, pp. 62–63.

[158] Cf. Q. 2:30, and the discussion of repentance in Part 3.4.iii.

Part 4

Conclusion

Part 4: Conclusion

After a summative overview, this concluding part recapitulates, in point form, the key findings and recommendations of the study. This is followed by a similar summary of the resonances between the Qur'an and Catholic social teaching found in *Laudato Si'*. Part 4 ends with some concluding comments on a 'Qualitative Regeneration'.

4a) Summative overview

This study has presented clear and strong Qur'anic guidelines to address the ethical, ecological and environmental issues faced today. It has linked the key encyclical idea of integral ecology to several Islamic concepts, foremostly the fundamental Islamic belief of divine unity (*tawḥīd*), which is the unitive foundation of Islamic integral ecology (Part 2b.iv). The principle of unity relates to the profound interconnection between all of creation, and between creation and the Creator. Another key component of integral ecology is the term *fiṭrah*, which is often understood to mean 'innate nature/disposition' and 'primordial nature'. This study has related *fiṭrah* to both the divine and the human character (Part 2b.v). Furthermore, interpretations of *fiṭrah* which apply it to the external natural world have also been discussed; and the wholistic (internal and external) application of the term has been explained. The Islamic divine designations, derived from the Qur'an, have been demonstrated to be the very threads of both *tawḥīd* and *fiṭrah*, extending from God, their source and very being, and running throughout God's creation, above all in humankind. This study has shown the sanctity of principles like mercy, nurturing care, protective preservation, compassion, justice, equity, and goodness, which are enshrined in Islamic divine designations. The divine designations have been explained as not only theological descriptions of God but the highest ethical benchmarks for people, and a principial framework within which the wisdom on the issues at hand can be positioned (Part 2b.vi).

The study has also elucidated the core Qur'anic principles of mercy (*raḥmah*) (Part 1b.ii) and balance (in Part 1b.ii as counterpoise; in Part 2a.i as *mīzān*; in Part 2b.iii in relation to justice, equitability, and moderation (*ʿadl*, *qiṣt*, *wasaṭīyah*). *Raḥmah* has been emphasised as the intrinsic default mode of being, chosen by God for Himself (Q. 6:12), and this has been explained as indicating that people too should choose to make *raḥmah* intrinsic to the way in which we relate to one another and the rest of creation. Balance (*mīzān*) is highlighted in the Qur'an as inherent in God's creation of the universe, and as something that God wants humankind to maintain (Q. 55:5–9). Justice and equitability are central to both balance and mercy and are foundational for sustainability and healthy socio-economic conditions. The principle of moderation advocates against excess, such as greed or

waste, all forms of which are condemned in the Qur'an (Q. 102). These Qur'anic virtue-principles are at odds with the pursuit of 'endless' materialistic growth or 'progress', and the accumulation of evermore wealth and power; and they are at odds with the selfishness and greed which fuel such pursuits, and with the disrespect and exploitation (of people, animals, natural resources, and the planet) that accompany such pursuits.

Key Muslim faith-based views on the philosophical roots of such pursuits and how these have led to the advent of the Anthropocene era have been presented (Part 2a.ii). Recent centuries saw profound changes in humanity's attitude to nature and in how it views its own place in the world; these changes have led to an instrumentalization of nature and the emergence of a utilitarian view of the natural world. Coupled with technological advances, this instrumentalization of nature and utilitarianism in turn has led to humans wielding technology with an increasing lack of restraint. The similarities between LS and the Muslim faith-based critiques of the human causes of the environmental crisis have been noted; and scientific information which supports the critiques has been provided. The study has also affirmed that climate justice is vital for our immediate and long-term future and has noted how some Muslim voices have positioned climate injustice along the trajectories of historical imperialism and colonialism (Part 2a.ii).

The significant common ground that exists between the Qur'an and *Laudato Si'* has also been demonstrated in this study. Part 3 has shown that the encyclical themes laid out in LS 1–12 evoke many and profound resonances with the Qur'an. For instance, on perceptions of the natural world as a precious and valuable part of God's creation; the interrelatedness of all creation; the understanding of humankind as the being in whom earth and spirit are conjoined; humankind's custodial role on earth; the need for divine guidance; and the need for ethical care to be manifested by people towards other humans, towards all living creatures and towards the earth itself. These conceptual overlaps provide a strong foundation for Catholic-Muslim interfaith partnerships, from which we can work together as we seek to care for our common home and its remaining bio-diversity.

4b) Summary and recommendations

4b.i: Qur'anic principles and perspectives

1. Islamic ecology is profoundly theocentric.
    - *Therefore, ecological awareness, responsibility and good practices are part and parcel of Islamic faith.*
2. Qur'anic ecology is founded on the principles of unity, mercy, moderation, balance, and justice.
3. The essential Islamic principle of *tawḥīd*, i.e., the unity of God, unity in God and within His creation, is the fulcrum principle of Islamic integral ecology. God's presence is perceived 'wheresoever you turn' (Q. 2:115). (Part 2b.iv).
4. Creation (the whole universe), the natural physical world, and the human being, are all conceived of as dynamic repositories and expressions of God's qualities; they are called, 'the signs of God' (*āyāt Allāh*), and are considered an existential revelatory book. (Parts 3.3; 3.9)
    - *Points 2–4 reinforce the idea that there should be an assumption of potential inherent sanctity in everything and everyone, as indications or signs of God. This in turn translates into respectful attitudes towards other people, non-human beings on earth, and the natural environment itself, including the planet.*
5. The divine names and designations indicated in the Qur'an (known as the most beautiful names of God), and the principles that they enshrine, permeate the cosmos and human nature. They have been presented here as an overarching framework of values within which to situate human endeavours to enhance socio-ecological awareness and responsibility, and related good practices. This framework of sacred principles is presented as the ultimate scales of 'balance' (*mīzān*) on which Muslims are to gauge their actions and the potential outcomes. (Part 2b.vi)
6. The human being contains something of the divine spirit as well as elements of the characteristics described in the divine names, which themselves are part of God's nature (*fiṭrat Allāh*). At the same time, the human is also made of the very same substance as the earth and the whole physical cosmos. (Part 2b.vi)
    - *On the basis of points 5 and 6, we should endeavour to live in accordance with our inherent sanctity and extend the divine qualities, which means using our God-given characteristics, abilities, and capacities in ways that respect God, ourselves, and the rest of God's creation.*
7. The human being has a particularly special status as the earthly being who is divinely chosen to be the deputy or steward on/in earth (*fi'l-arḍ khalīfah*; Q. 2:30). (Part 2a.ii, 3.4.iii, 3.5) At

the same time, the Qur'an recommends that humans do not walk on the earth insolently and that people do not treat other people contemptuously (Q. 17:37; 31:18). (Part 2a.ii)

- *As deputies on earth, humans have stewardship responsibilities towards the earth and all that is therein. This involves treating other people and the natural world, in all its diversity, in a way that is respectful and sustainable, in other words, treating others with dignity, using resources moderately, and engaging in progress judiciously. Stewardship includes behaving responsibly by addressing the climate crisis and all related socio-ecological issues.*

8. The human being has been given the capacity to come to know God the Creator through His creation – this is a primary goal of creation according to Islamic spirituality. (Part 2b.iv, 3.4.iv)
    - *Knowing God through His creation is not supported by damaging that creation through insolent abuse and greedy exploitation. Therefore, we Muslims should use the world in a way that remains mindful of the purpose of knowing God through His creation. Such God-awareness, if applied adequately, would pre-empt so many negative actions, not least on socio-ecological fronts.*
9. Part of the human being's remit is also to understand, respectfully use, and preserve creation as a divine book. This includes the physical planet – which is our God-given home – and its bio-diversity. (Parts 2a.i, 3.9)
    - *On the basis of points 7–9, it behoves humankind to properly understand and assume the mantle of stewardship on earth. This involves i) taking care not to damage the planet when using natural resources; ii) not exploiting people or animals, and not overusing land or natural resources; and iii) ensuring that the rights of all people and creation are respected in a reasonable and balanced manner. It further involves reducing that which damages the world, e.g., reducing our carbon footprint and greenhouse gas emissions.*
10. The Qur'an views all creatures as 'signs of God' in their own right, as part of God's existential revelatory book. All creatures are conceived of as communities with their own relationship with the Creator. The Qur'an describes all creation as, 'communities of praise' (Q. 24:41). (Parts 3.3, 3.8)
    - *Therefore, all creatures are to be treated with due care and kindness; with gratitude to God for them; and with respect for their rights as co-inhabitants of this God-given, life-sustaining planet. Nothing should be damaged[1], since that would amount to damaging a particular form of praise of God.*

- *The following are all contrary to the divine spirit and to the sacred principles of Islam: wild-life trafficking, abusive methods of farming of animals, abuse of animals for purposes of human entertainment, the destruction of natural habitats of animals, the destruction of forests, the pollution of the waters of the earth, enslavement of people or animals, endless pursuit of excessive profits through industrial and commercial ventures which cause damage to people, animals, and the environment.*

11. The principles of balance, justice, and moderation (*ʿadl*, *qiṣt, wasaṭīyah*) are promoted in the Qur'an; they are key to the Qur'anic perspective of the cosmos, the planet earth, and human society. (Part 2b.iii)
    - *Therefore, we should, in as much as we are able, seek to uphold and promote these principles in our lives at all levels: individual, familial, communal, societal, national, and international.*
12. Greed, immoderation, injustice, oppression (*ẓulm*), and the desire for accumulating excessive wealth (*takāthur*), are condemned in the Qur'an. (Part 2b.iii)
    - *Therefore, Muslims should seek to live in ways that eschew these vices. Such changes of lifestyle will have a positive socio-ecological impact and also mitigate climate change.*
13. Reasonable and sustainable use of natural resources is permitted. (Part 2a.ii, 2b.iii, 2b.iv)
14. Damage and destruction of the natural world is contrary to the ethos of Islamic integral ecology. (Part 2a.ii, 3.5, 3.8, 3.9)
    - *Abstaining from such damage and destruction includes ceasing with practices such as deforestation*, *overmining, over-farming, and over-fishing. It includes reducing as much as possible the pollution of land, air and sea. Not least, greenhouse gas emissions should be reduced, as needed to prevent climate change from becoming worse.*
15. Respect for all peoples on earth and their rights to the use of land are in keeping with Qur'anic teachings that we be neither arrogant nor insolent (Q. 17:37), that we do not treat people contemptuously (Q. 31:18), and that different peoples mutually acknowledge each other (Q. 49:13), and by extension, mutually acknowledge each other's rights, and offer mutual understanding and support to each other. (Part 2a.ii)
    - *Points 11, 12, and 15 are particularly pertinent to the need for both social and climate justice*.

4b.ii: Resonances between the Qur'an and Laudato Si'

Correlations between Qur'anic principles and Muslim faith-based voices, on the one hand, and *Laudato Si'* on the other, have been pointed out throughout this work. Part 3 has disclosed, in detail, the strong and manifold Qur'anic resonances with the themes set out in Pope Francis's introduction to the *Laudato Si'* encyclical (LS 1–12). With references to over 170 Qur'anic verses in Part 3 alone, the density of Qur'anic resonances is evident. The summary below shows in point form some of the key commonalties between the two traditions.

1. In form and spirit, there are innumerable resonances between the Islamic sacred Scripture, the Qur'an, and the socio-ecological Catholic teachings found in *Laudato Si'*.
2. Both faith traditions call for a more respectful and caring attitude towards the natural world as part of our duty to God the Creator and Lord of All, who cares for all His creation.
3. Both traditions condemn the unethical practices that have led to the current eco-environmental crisis.
4. Both traditions provide a wholistic approach to address socio-economic and ecological matters.
5. There are strong structural and semantic similarities between the first chapter of the Qur'an and the Canticle of St Francis of Assisi, both of which combine praise of God with a prayer for guidance. (Part 3.1)
6. The concern for humanity's assumption of lordliness over the earth expressed in LS 2 finds a counterpart in the frequent Qur'anic affirmations of God, not humanity, as the 'Lord of the heavens and the earth' and 'Lord of humankind' too. (Part 3.1)
7. Similarly, the encyclical cautions against unchecked human action found in LS 4 have equivalents in the Islamic scripture. Both sources emphasise human accountability. (Part 3.2)
8. With reference to LS 5, numerous relevant Qur'anic passages have been cited which highlight the Qur'anic ecological perspective in which humankind and the natural physical world (both animate and inanimate) are intimately interwoven as parts of God's creation, and as 'signs of God'. The topics of ecological repentance and conversion (i.e., turning away from harmful ways of living), highlighted in LS 216–221, are addressed from the Qur'anic perspective too. (Part 3.3)
9. The composition of the human being (comprising spirit, soul, and physical matter) features in LS 6 and 9, and also in several Qur'anic verses. There is agreement between LS and the Qur'an that humans bring together the spiritual and the physical in their very constitution, and there is agreement that a sin against the natural world is a sin against God, as well as a sin against

humankind. Both traditions indicate the human need for higher divine guidance. (Parts 3.4 and 3.5)

10. The tripartite relationship between God, humanity, and the rest of the cosmos is contained in both LS and the Qur'an. (Part 3.5)
11. Altruism, sharing, a spirit of generosity, a sense of justice, and asceticism are shared features of both traditions. (Part 3.6)
12. The characteristics of the Prophet Muḥammad ﷺ and St Francis of Assisi exemplify socio-ecological virtues we should strive for in our present day. They include: an awareness of God through all things; love/mercy, compassion, gentleness; simplicity of lifestyle; a sense of justice; care and support for vulnerable members of society; protection of and sustainable use of natural resources. (Part 3.7).
13. The love and care for animals is also a common feature of both traditions. (Part 3.8)
14. Both the Qur'an and the Catholic traditions view the natural world as a divine book that manifests God's power and beauty, His wisdom and blessings; it is to be loved, contemplated, respected and cared for by humanity. (Part 3.9.)

With such strong thematic resonances, there is a promising basis for interfaith fraternity between the Catholic and Islamic faiths as, together, we help tackle the socio-ecological crises that humanity and all on planet earth face. LS 118 states, 'there can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate anthropology.' The same LS paragraph (LS 118) also states, 'Human beings cannot be expected to feel responsibility for the world unless, at the same time, their unique capacities of knowledge, will, freedom and responsibility are recognised and valued'. These encyclical messages relate to two key aspects for resolving our global crises. Firstly, humanity urgently needs to alter its approach towards nature, from one of utilitarian exploitation to one of duty of care. This would inevitably involve tackling the existential challenge of climate change, including cutting down greenhouse gas emissions (adequately and swiftly), with all the many changes this would require. Secondly, LS 118 highlights the need for people to change themselves for the better, and to render to everyone the respect and dignity that they themselves would wish to enjoy. The concluding thoughts of my theological study pertain to this second vital aspect, in particular, the 'renewal of humanity itself'.

4c) Concluding thoughts: a qualitative regeneration

As noted in earlier sections of this work,[2] the ontological threads that run through Qur'anic ecology are the very same that permeate all of creation, including the human being, namely, the qualities of God, which in the Islamic tradition are enshrined in the divine names and designations derived from the Qur'an. These articulate the most sacred Islamic principles. Furthermore, these principles have been shown (Part 2b.vi) to be moral benchmarks that all of humanity, irrespective of race, gender, religion, creed, or any external circumstance, has been infused with and is meant to bring into action. This study has therefore presented the divine names as an overarching principial framework within which relevant scriptural and ethical wisdom can be positioned. It is, in this author's view, the just and balanced actualisation of these principles by people (individuals, communities, governments, international organisations etc.) everywhere, in their diverse fields and circumstances, that will ensure that the necessary balances in all of life are regained, with all the benefits that will result from that. This may be termed a 'Qualitative Regeneration' of humankind. Examples of this regeneration are ever present in humanity at large, and can be seen, to varying extents, at all times, in all places, in different cultures and traditions (faith traditions and non-faith traditions), among all peoples, and within every person. While the latent presence of these qualities are, according to faith perspectives, endowed to humanity by God, the manifestations of this Qualitative Regeneration in human conduct and life depend in no small part on human choices. And, inasmuch as humans are the dominant species on earth, the quality of life on earth depends ultimately on which qualities humans choose to manifest.

Human free will comes at a terrible price. People can, and unfortunately too often do, choose to do all manner of awful things, including genocide, ethnic-cleansing, violent discrimination against whole races, communities and species, and crimes and abuses against individuals. There is also the awful mistreatment, neglect, and exploitation of animals, the destruction of wildlife habitats, and damage of the physical planetary environment as a whole. All human-afflicted misery and degradation is, ultimately, the result of someone's free-will, when the face of mercy and goodness does not shine through the face of power,[3] and when the desire for progress is not balanced by moderation.[4]

Conversely, the fruits of human free will are in all 'good, virtuous things' (*khayrāt*/*ḥasanāt*) – when humanity manifests goodness, mercy, care, compassion, equity, justice, and other virtue-principles. Moment by moment, people need to consciously choose which aspects they will align themselves with. Yet, since choices by definition require assessing and negotiating multiple options and opinions, the application of free will is a very difficult and challenging balancing act. Thus, the exercise of human free will boils down to what people choose to prioritise individually, collectively,

privately, and publicly, as organisations, governments and countries; at root, *this choice is determined by what people consider to be the purpose of their life, and indeed of all life, be that on earth or elsewhere in the universe*. This is why recent Popes (from John XXIII to Francis) and the Muslim faith-based voices cited in this work, trace the roots of the current global crisis back to the changes in how humans viewed themselves, their purpose, and the purpose of life and creation (Part 2a.ii).

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Climate change has had a catastrophic impact on every aspect of human life on earth (social, political, economic, existential) and all life-forms on earth. Any possibility of avoiding doomsday scenarios will need a dedicated and impactful modification of current lifestyles, and that means a change of priorities. Excessive profit, wealth, and land accumulation cannot be the goal. Domination cannot be the aim. Yet, a brief glance around the world shows how both the desire to dominate and the goals of materialistic accumulation are still prevailing, revealing a qualitative deficit. At the same time, the alternative principles noted in this study (e.g., justice, equitability, moderation, mutual respect, co-operation, goodness, generosity, and compassion) chime with a great many people across the world and, thankfully, there is an increasing reaffirmation of these principles, which is off-setting the substantial qualitative deficit.[5] This upswing in ethical prioritisation is continuing to manifest in diverse sectors, and among people of all faiths and no faith, for example, among human rights activists, climate justice and environmental activists, the numerous people involved in addressing climate concerns, animal conservationists, the leaders and countless civil society actors working towards ensuring socio-environmental justice and the alleviation of poverty, and all the people making seemingly small yet helpful ethical choices in their individual lives. Hopefully, the reaffirmation of these principles will increasingly be expressed among more and more people globally, not least those in power and authority, who have the wherewithal to make significantly impactful decisions.

Distilled, the 'Qualitative Regeneration' highlighted in this study is a matter of common sense; at the same time, it is a great challenge. Sayyidnā ʿĪsā ibn Maryam al-Masīḥ (Jesus Christ) ﷺ spoke of the Kingdom of God as being 'within you'.[6] Defining the Kingdom of God in light of the discussions in this study, and from a faith perspective, it may be inferred that the Kingdom of God within humanity consists of the divine spirit in us, along with the principles and powers, and the virtues and capacities endowed to humankind in our *fiṭrah*. These are enshrined in the names of God. In other words, on the basis of this study, one can interpret the divine qualities *themselves as* the Kingdom of God. Consequently, the reign of the divine kingdom within humankind would be achieved to the extent that humanity lives in harmony with God's most beautiful qualities.[7] When, with the help and grace of God,

this unique, privileged creature – the human being – chooses to become more fully aligned with God's qualities, then humanity can help to make all manner of things on earth become well.

May all people freely choose to extend the wise and beautiful divine principles that are inherent in all humans. May they do so benignly and beneficially to all, justly and caringly, wisely and mercifully, strong in goodness. May it all be as pleases the Lord of Humanity, the Lord of the Worlds, All-Gracious and Merciful, Majestic and Magnanimous, the Just, the Equitable, the Kind and Deeply-Loving, the Nurturing, Protective Preserver, the Restorer and Revivifier, the Powerful Creator Himself; He who is nearer to the human than the jugular vein is (Q. 50:16).

Praise to God, Lord of the Worlds, and in Him we seek help. Amen.

Al-ḥamdu li'Llāhi Rabbi'l-ʿālamīn wa bihi nastaʿīn. Āmīn.

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[1] As noted earlier (Part 3 endnote 128), there is a distinction between reasonable use and damage.

[2] For example, Part 2b.v and vi.

[3] Cf. Part 1.2.ii (on counterbalance and equipoise).

[4] Cf. Part 2.ii (on excessive progress) and 2.iii (on Qur'anic fundamental principles).

[5] See Part 2b.iii for how the Qur'an presents increase in virtue (*khayrāt*) as the counterbalance to materialistic excessiveness (*takāthur*).

[6] Luke 17:21. In Romans 14:17 it is said, 'The Kingdom of God is not a matter of eating and drinking; but righteousness, and peace, and joy in the Holy Spirit'.

[7] This state of being in harmony with the God was described in the Qur'an comments ascribed to Jaʿfar al-Ṣādiq as '*muwāfaqah bi'llāh*' (Mayer, *Spiritual Gems*, pp. xxxvi–xxxviii; p. 134, fn. 219); see Part 2 endnote 252.

Appendix: The Islamic Divine Names and Designations

This technical Appendix offers a categorisation of the syntactical structures in which divine names and other divine designations are used in the Qur'an. A selection of Qur'anic phrases that exemplify such usages are also provided. Where pertinent, the relevance of these examples to ecological matters is pointed out, for instance in Section 1 (d) below.

1) Qur'anic syntactical formulations used for referencing God

The Qur'an uses different types of syntactical formulations to reference God; by 'reference' I mean that through such expressions the Qur'an refers to God in a way that tells us something about Him and His nature, and His characteristics and attributes. As expounded in Part 1b.ii, the Qur'anic references to God's names and designations, therefore, serve an informative purpose, whilst also having a hermeneutical impact on the contextual scriptural material and accommodating the rhyme of the contextual verses.[1] In the course of my research, I have identified four major categories of such syntactical articulations: 1) 'The most beautiful names of God'; 2) Formulaic doctrinal proclamations or rhetorical statements that affirm God as the single and sole Deity (relevant to *tawḥīd*); 3) Divine personal self-references using the first person singular in nominal sentences; 4) Compound structures denoting divine ownership, authority, favour, and proximity (relevant to human accountability to God 'to whom belongs the kingdom of the heavens and the earth' (Q. 2:107). Of these four categories, the most frequently occurring group is that of 'the most beautiful names of God', so we start with them.

i) 'The most beautiful names of God' (asmāʾ Allāh al-ḥusnā)

As references to God, the divine names provide information on the nature, qualities, and characteristics of God. In addition, they also serve as moral benchmarks for humanity, as discussed in Part 2b.vi. The derivations and pairings of the divine names have been explained in Part 1b.ii, above. Here I will focus on the different grammatical components and structures used in the Qur'an for presenting divine names. The divine names comprise adjectives, nouns, predicates, and active participles which delineate divine characteristics, functions, and moral stances.[2] With the exception of a few cardinal names, such as *Allāh* and *al-Raḥmān*, the names of God are mostly descriptors rather than proper nouns or personal theonyms proper. Their affiliation to God in the Qur'an is established through context and the syntactical forms given below. The divine names in the Qur'an can have the following grammatical forms: (a) definite predicates; (b) indefinite predicates; (c) active participles; and (d) elative phrases.

(a) Divine predicates appearing with the definite article. For example, 'the All-Compassionate, the Merciful' (*al-Raḥmān al-Raḥīm*; Q. 1:1); 'the Living, the Preserving Sustainer' (*al-Ḥayy al-Qayyūm*;

Q. 2:255); 'the Mighty, the Wise' (*al-ʿAzīz, al-Ḥakīm*; Q. 5:118); 'the Provider … the Steadfast' (*al-Razzāq … al-Matīn*; Q. 51:58); 'the All-Forgiving, the Deeply-Loving' (*al-Ghafūr al-Wadūd*; Q. 85:14).

(b) Indefinite predicates, which occur in four formats: i) in nominal phrases like, 'God is witness over what you do' (3:98), in which the divine designation 'witness' (*shahīdun*) is in the nominative case; ii) as predicates of the particle *inna*, which means, 'indeed' or 'verily', for instance, 'verily, God is comprehensive, knowing' (*inna'llāha wāsiʿun ʿalīmun*; Q. 2:115), in which the divine designations 'comprehensive' (*wāsiʿun*) and 'knowing' (*ʿalīmun)* are predicates of *inna*; iii) as predicates of the verb *kāna*,[3] which means, 'to be', for example, 'Indeed, God is always knowing, wise' (*inna'llāha kāna ʿalīman ḥakīman*; Q. 33:1), with the divine names 'knowing' (*ʿalīman*), 'wise' (*ḥakīman*) in the accusative case as predicates of *kāna*; and iv) as predicates in other verbal clauses, e.g., 'sufficient is God as witness' (*kafā bi'llāhi shahīdan*; Q. 4:79) in which the divine name 'Witness' (*shahīdan*) is in the accusative as the predicate of the verb *kafā*.

(c) Divine names also appear as active participles in other general descriptions of God, such as, 'the forgiver of sins, the acceptor of repentance, the strong in retribution' (*ghāfiri'l-dhanbi wa qābili'l-tawbi, shadīdi'l-ʿiqāb*, Q. 40:3); 'prompt in reckoning' (*sarīʿu'l-ḥisāb*; Q. 40:17); and 'extensive in forgiveness' (*wāsiʿu'l-maghfirah*; Q. 53:32). These extended descriptive names are all counted among the names of God.

(d) The divine names are also found in elative phrases such as, 'The Most Merciful of the merciful' (*Arḥam al-rāḥmīn*; Q. 7:151); 'Best Protector/Custodian' (*Khayrun ḥāfiẓan*; Q. 12:64); 'Most Judicious of judges' (*Aḥkam al-ḥākimīn*; Q. 95:8); 'Best of providers' (*Khayr al-rāziqīn*; Q. 62:11). The elative nature of these designations of God show that the qualities of God are to be found in creatures too, albeit in delimited manner, and that God's attributes should serve as benchmarks for humanity to aspire towards. With this in mind, Q. 62:11 – 'What is with God is better than entertainment (*lahw*) and better than trade (*tijārah*), and God is the Best of providers' – may be interpreted in an ecological sense. It teaches us that learning to seek and follow God and His ways (for instance by emulating His characteristics) is preferable to gaining vain things and wealth; or to put it another way, the pursuit of trade and entertainment is not to be prioritised over the ethical application of God's principles, such as justice, equity, preservation of life etc. These virtue-principles have been discussed in Part 2b.iii, as was the pursuit of excessive wealth at the cost of equitability, and justice. Here, I would note that the full implications of this verse (Q. 62:11), if implemented, would be life-changing for the victims of some of the grossest forms of 'entertainment', such as the coercion of people for carnal 'services', the requisitioning of indigenous lands for building golf courses for the rich, and keeping animals in captivity in zoos and marine centres for the entertainment of people.[4] Similarly, Q. 62:11 can be applied to critique big European industries that forcibly seize or purchase land used by indigenous

people, to repurpose such land for carbon sequestering plantations, in order to allow the European industries to continue as normal without having to make changes to cut carbon emissions. Such dubious practices that protect big trade interests and profits disregard the principles of equity, justice, and other principles enshrined in the divine names.

Qur'an surah 95 (discussed in Part 2b.iii), contains the elative designation, 'the Most Judicious of judges', and is a short chapter consisting of only eight verses. It highlights that the human being has been created in the best form of uprightness, but then cast down to the lowest of the low, except for those who believe and do good; for them there shall be an ongoing reward. This too can be applied to integral ecology: if humans believe in God and adopt His ways and do good, rather than exploiting the earth, its resources, and inhabitants, then humanity will be able to enjoy the God-given blessings of the earth for longer. These Qur'anic guidelines resonate with the Christic benediction, 'Blessed are the meek, for they shall inherit the earth' (Matthew 5:5), which takes on a deeper significance, in the light of the crisis brought on by humankind's exploitative, excessive, and presumptuous manner of living. The Greek Biblical word for 'meek', *praus,* denotes being 'mild' and 'gentle';[5] it is closely related to *praios*, which also denotes being 'gentle', 'humble', and 'kind',[6] and to *praotés*, which denotes being 'temperate', 'avoiding harshness', and 'having the right blend of strength and gentleness'.[7] This describes being balanced and moderate.[8] The blend of strength and goodness is also reminiscent of the divine designation, 'Possessor of Majesty and Magnanimity' (*Dhū'l-jalāli wa'l-ikrām*).[9]

ii) Formulaic doctrinal proclamations of divine singularity and unity

These are set rhetorical statements that affirm God as the single and sole deity. For example: Q. 2:163 has, 'your[pl] God is one God, there is no deity except for Him, the All-Gracious, the Merciful' (*wa ilāhukum ilāhun wāḥidun lā ilāha illa Huwa'l-Raḥmānu'l-Raḥīm*); Q. 27:60–64 has the rhetorical question, 'Is there a deity along with God?' (*a-ilāhun maʿa'llāh?*); Q. 38:65 affirms, 'There is no deity whatsoever except for God, the One, the Irresistible' (*wa mā min ilāhin illā'llāhu'l-Wāḥidu'l-Qahhār*); and Q. 112:1 has the famous foundational doctrinal statement, 'Say, He (is) God (is) One' (*qul Huwa Allāhu Aḥad*), discussed at length in Part 2b.iv.

iii) Divine personal self-references using the first person singular in nominal statements

The statements in which God speaks in the first person singular are among some of the most powerful and intimate expressions of divine closeness in the Qur'an. For example, in Q. 2:186, God says to the Prophet, 'When My worshipper asks you about Me, then indeed, I am near (*fa-innī qarīb*); I respond to the call of the caller when he calls Me; then let them respond to Me and believe in Me that they may be rightly-guided'. Q. 20:12 has the potent and emphatic statement, made to Moses on

Mount Sinai, 'Indeed, I, I am your Lord' (*Innī Anā Rabbuka*), while a broader divine declaration is given to Moses at the Burning Bush in Q. 28:30, 'Indeed, I, I am God, Lord of the Worlds' (*Innī Anā'llāhu Rabbu'l-ʿālamīn*). At the end of a series of verses about the earlier Biblical prophets – which include Mary, mother of Jesus – Q. 21:92 contains the declaration, 'Indeed, this community of yours is one community and I am your[pl] Lord' (*Anā Rabbukum*).

iv) Compound structures denoting divine ownership, authority, favour and proximity

This category of formulations that reference God include the following subsidiary grammatical sets:

(a) Genitive-construct phrases indicating divine 'titles' of possession. For example, 'Possessor of Majesty and Magnanimity' (*Dhū'l-jalāli wa'l-ikrām*; Q. 55:78); 'Possessor of tremendous grace' (*Dhū'l-faḍli'l-ʿaẓīm*; Q. 2:105); 'Supreme Sovereign' (*Mālik al-mulk*; Q. 3:26); 'Light of the heavens and the earth' (*Nūru'l-samāwāti wa'l-arḍ*; Q. 24:35); 'Knower of the hidden and the witnessed' (*ʿĀlimu'l-ghaybi wa'l-shahādati*; Q. 32:6).

(b) Designations of particular divine proximity, favour, and intimacy. For instance: 'God is kind to worshippers' (*wa'llāhu raʾūfun bi'l-ʿibād*; Q. 2:207); 'Indeed, my Lord is close, responsive' (*inna Rabbī qarībun mujīb*; Q. 11:61); 'Hold fast to God, He is your Patron, the perfect patron, the perfect helper' (*wa'ʿtaṣimu bi'llāhi Huwa mawlākum fa-niʿma'l-mawlā wa niʿma'l-naṣīr*; Q. 22:78).

(c) The possessive ascriptions '*la-hū/li'llāhi*', which mean 'belong to Him/belong to God' are used to describe God's ownership of things. For example: 'To Him (God) belongs the kingdom of the heavens and the earth' (*lahū mulku'l-samāwāti wa'l-arḍ*; Q. 2:107); 'To God belong the east and the west' (*li'llāhi'l-mashriqu wa'l-maghrib*; Q. 2:115); 'To God belongs the heritage of the heavens and the earth' (*li'llāhi mīrāthu'l-samāwāti wa'l-arḍ*; Q. 57:10). These possessive formulations are particularly pertinent for human ecology, since they remind humankind that it is not people but God who owns not just the earth but also the heavens and the solar horizons, in other words, the whole cosmos.

Q. 28:70 – 'He is God there is no deity but Him; to Him belongs the praise in the first [world] and in the later [realm] and His is the (decisive) judgement and unto Him you are returning' (*Wa huwa Allāhu lā ilāha illā Huwa; lahu'l-ḥamdu fī'l-ūlā wa'l-ākhirati wa lahu'l-ḥukmu; wa ilayHi turjaʿūn*) – combines elements from different categories of divine designations. It starts with a category 2 formula, then continues with two category 4c structures, and ends with a reminder that humanity will return to God to answer for how we acquitted ourselves during our time on earth. This is followed by verses about God's grace and power in establishing the patterns of day and night on earth, and an invitation for humans to be grateful.

May we gratefully recognise God's power and grace in His creation and to us, and may our gratitude also manifest itself in reasonable living that does not exploit planet and creatures through the desire for endless, excessive material gain, and domination. Enough is as good as a feast, as the old English proverb wisely teaches.

May we 'hold fast to God our Patron' through emulating His benign, equitable, and just characteristics; may we be strong in goodness, and endeavour to make mercy our default mode of living even as God 'inscribed mercy upon Himself' (Q. 6:12). May we no longer spoil the balance, but endeavour to rectify it. Along with Sister Bee, may we easily and gently follow the ways of our Lord.[10] May humanity care for God's creation as He intended us to and as pleases Him. *Āmīn, wa bi'llāhi nastaʿīn*.

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[1] See Part 1b.ii and the endnotes 36, 37.

[2] Robinson, *Discovering the Qur'an*, pp. 200, ff., makes a brief foray into grouping the divine names according to seven 'principal characteristics of God (omniscience, omnipotence, beneficence, indulgence, uniqueness, perfection and reliability)' to which the majority of the names refer, later noting a further six major attributes (lordship, creator, existence, eternity, justice, generosity) – reminiscent of the categorisations of divine names by Daniel Gimaret in his book *Les noms divins en Islam: exégèse lexicographique et théologique* (Paris: Éditions du Cerf, 1988). Gimaret does not study the names in their Qur'anic context; nor does Robinson delve into the details of the hermeneutical, contextual functions of divine names, focusing rather on their role in Qur'anic rhyme.

[3] While there are multiple instances in the Qur'an when *kāna* does denote a specific moment in time (e.g., Q. 21:79), it often expresses an eternal, continuous tense, especially with reference to God (Badawi & Haleem *Qur'anic Usage*, p. 825). Yehudit Dror refers to Muslim sources and western academics, who explained *kāna*'s indication of continuity, among its other uses (Dror, 'The Perfective Indication of kāna in Clauses of the kāna llāhu ʿalīman raḥīman Type', *International Journal of Arabic Linguistics* 3, no. 1 (2018), pp. 37–80). Dror also notes the use of *kāna* as the 'prophetic perfect' tense, when eschatological references are referred to in the past tense (Dror, 'The Structure of Legal Passages in the Qur'an', *International Journal for the Rule of Law* 2, no. 1 (2018), p.74). Other scholars highlight the function of *kāna* in producing appropriately rhyming verse-endings in places where the past tense is not particularly needed (Devin Stewart, 'Rhymed Prose', in *Encyclopaedia of the Qurʾān*, vol. 4., edited by J.D. McAuliffe (Leiden/Boston: Brill, 2004), p. 483; Robinson, *Discovering the Qur'an*, pp. 198–199). Temporal and rhyme uses are not mutually exclusive; for instance, in Q. 73:18, 'His (God's) promise is already done', *kāna waʿduhū mafʿūlan* refers to the day of judgement as a promise already accomplished, while simultaneously providing a verse-ending that fits those of all other verses in surah 73, except the last. In Q. 33:1, *kāna* indicates the eternal tense, hence my rendition, 'is always' (which expresses that God always was as described, always is so, and always shall be so); at the same time, the use of *kāna* in this context facilitates the rhyming scheme.

[4] These are just a few examples. Even sports such as horse-racing are not innocent; see 'Five reasons why horse racing is cruel', World Animal Protection, 29 October 2019, https://www.worldanimalprotection.org.nz/news/five-reasons-why-horse-racing-cruel. Camel-racing used to involve the abuse of child jockeys in addition to the stress to the animal; Ishaan Tharoor, 'Camel Racing', *Time*, 20 June 2011, https://keepingscore.blogs.time.com/2011/06/20/top-10-evil-sports/slide/camel-racing/. Bridling animals, the use of bits (so painful and harmful to the tongue), forcing animals to do things against their will – these are all profoundly grave issues which humanity needs to address.

[5] Strong's Greek Lexicon, #4239; Strong's Greek: 4239. πραΰς (praus)

[6] Strong's Greek Lexicon, #4235; Strong's Greek: 4235. πρᾶος (praos)

[7] Strong's Greek Lexicon, #4236 Strong's Greek: 4236. πραότης (praotés)

[8] See Part 2b.iii for the discussion of balance, moderation, justice, and moral uprightness.

[9] See 4 (a) and the discussion of equipoise in the divine designations in Part 1b.ii.

[10] Cf. Q. 16:69, and see the Part 3.8 on LS 11.

2) Index of divine names/designations used in this book

As Arabic is a polysemous language, one Arabic word can be translated by any of several English words. Translators offer various English renditions of the divine names. The renditions given below are mine and reflect the fuller implications of the Arabic. Page references are for the Arabic.

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About this book

An Introduction to Qur'anic Ecology and Resonances with Laudato Si' presents Qur'an-based theological and ethical principles that are applicable to integral ecology. This study presents clear and strong Qur'anic guidelines that can be referred to by Muslims in addressing the ethical, ecological and environmental issues faced today. The study relates the central encyclical idea of integral ecology to several Islamic concepts, particularly the interconnected unity of all creation, the innate nature of God and humankind, and the Qur'anic principles of mercy, balance, justice, and moderation. Key Muslim faith-based critiques of the human actions that have led to the current global predicament are also discussed. These critiques accord with aspects of Catholic social teaching.

This study unpacks the Qur'anic resonances with the foundational themes presented in the preliminary section of Pope Francis' encyclical, *Laudato Si': On Care for our Common Home* published in 2015. It demonstrates that significant common ground exists between Qur'anic and encyclical perspectives with regard to these themes, including perceptions of the natural world as a precious part of God's creation; the interrelatedness of all creation; the understanding of humankind as the being in whom earth and spirit are conjoined; the need for divine guidance; and the need for people to manifest ethical care towards other humans, all living creatures and the earth itself. Conceptual overlaps such as these provide a strong foundation for Catholic-Muslim interfaith partnerships, as we seek to care for our common home.

About the author

Farhana Mayer has had a long-standing involvement in interfaith dialogue, and in promoting understanding within and among different faiths. She was formerly a lecturer in Sufism at the School of Oriental and African Studies (2010–2012) and at the Institute of Ismaili Studies, where she also lectured in Qur'anic Exegesis and headed the Graduate Programme in Islamic Studies and Humanities (2012–2015). Farhana is a published author in her field of Qur'anic Hermeneutics. Her publications include: *Spiritual Gems: The Mystical Qur'an Commentary Ascribed to Ja`far al-Sadiq* (Louisville: Fons Vitae, 2011); *Anthology of Qur'anic Commentaries: On the Nature of the Divin*e with F. Hamza and S. Rizvi (Oxford: Oxford University Press/Institute of Ismaili Studies, 2008). Her recent research at Oxford University explores the qualitative and ontological relationship between God and humankind from a Qur'anic perspective.