

**A
CATHOLIC-SHIC'A
DIALOGUE:**
Ethics in Today's Society

edited by
Anthony O'Mahony, Timothy Wright
and
Mohammad Ali Shomali



**A CATHOLIC-SHIC'A
DIALOGUE: Ethics in Today's Society**

edited by Anthony O'Mahony,
Timothy Wright and
Mohammad Ali Shomali



MELISENDE

ENVIRONMENTAL ETHICS: AN ISLAMIC VIEWPOINT

Gholam Reza Raeisian

One of the most important problems in today's society is the crisis of the environment. It would appear that the root of this problem goes back to the relationship of the human being to him/herself and to nature. To achieve personal benefits, pleasures and enjoyment it seems that humankind has decided it can use nature in such manner as it wishes and likes. But if we regard nature in this manner it will be very harmful to both us and the environment. In this present century we are now beginning to see some of the detrimental effects of this perception. It seems that the best way to preserve and protect the environment from destruction is to popularize and establish the religious perspective on the relationship between humans and nature. We should refer to the instructions of the divine religions and teach people, especially the young and children, so that they can learn how to use the natural phenomena in a more responsible way. In this paper, I will try to present the viewpoint of Islam regarding this subject by highlighting some of the Qur'anic verses as well as some Islamic *hadiths* in this regard. The paper consists of three parts: (i) nature from an Islamic viewpoint; (ii) humanity from an Islamic viewpoint; and (iii) instructions and recommendations.

NATURE FROM AN ISLAMIC VIEWPOINT

In the Qur'an, which is the most important source of knowledge and instruction in Islam, there are more than 750 verses related to natural phenomena. For example, there are many cases in which God takes oath by some of them, such as: 'the dawn' (89.1) and 'the fig and olive' (95.1). It should be noted that fourteen chapters of the Qur'an have been named after animals and other natural phenomena like: 'The Cow', 'The Cattle',

© Melisende Publishing 2008

All rights reserved. No part of this work, its text any or part of the illustrations and drawings, may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

A Catholic-Shi'a Dialogue: Ethics in Today's Society

First published 2008

Melisende Publishing

London EC1N 8QU

England

Tel: +44 (0)20 7269 9870

e-mail: melisende@btinternet.com

ISBN 978 1 901764 53 6

Melisende Publishing Ltd, London

and

Rimal Publications, Nicosia

For information on our publications, visit our website

www.melisende.com

and for

Rimal Publications, Cyprus, www.rimalbooks.com

Printed and bound in England at The Cromwell Press

ENVIRONMENTAL ETHICS: AN ISLAMIC VIEWPOINT

Cholam Reza Raisian

One of the most important problems in today's society is the crisis of the environment. It would appear that the root of this problem goes back to the relationship of the human being to him/herself and to nature. To achieve personal benefits, pleasures and enjoyment it seems that humankind has decided it can use nature in such manner as it wishes and likes. But if we regard nature in this manner it will be very harmful to both us and the environment. In this present century we are now beginning to see some of the detrimental effects of this perception. It seems that the best way to preserve and protect the environment from destruction is to popularize and establish the religious perspective on the relationship between humans and nature. We should refer to the instructions of the divine religions and teach people, especially the young and children, so that they can learn how to use the natural phenomena in a more responsible way. In this paper, I will try to present the viewpoint of Islam regarding this subject by highlighting some of the Qur'anic verses as well as some Islamic *hadiths* in this regard. The paper consists of three parts: (i) nature from an Islamic viewpoint; (ii) humanity from an Islamic viewpoint; and (iii) instructions and recommendations.

NATURE FROM AN ISLAMIC VIEWPOINT

In the Qur'an, which is the most important source of knowledge and instruction in Islam, there are more than 750 verses related to natural phenomena. For example, there are many cases in which God takes oath by some of them, such as: 'the dawn' (89:1) and 'the fig and olive' (95:1). It should be noted that fourteen chapters of the Qur'an have been named after animals and other natural phenomena like: 'The Cow', 'The Cattle',

'The Thunder', 'The Bee', 'The Ant', 'The Daybreak', 'The Sun', 'The Night', 'The Fig' and 'The Elephant'.

In numerous verses, the Qur'an states that all the natural phenomena have awareness of God and glorify God:

And there is not a thing but that it glorifies Him with His praise but you do not understand their glorification. (17:44)
Whatever exists in the heavens and whatever is in the earth declares the glory of God and He is the Mighty, the wise. (59:24)¹

In one verse the glorification of God by thunder is mentioned: 'And the thunder declares His glory with His praise.' (13:13) Two verses mention that the mountains and the birds along with the Prophet David glorified God: 'And We made the mountains and the birds to celebrate our praise along with David.' (21:79 and 38:18)

In some verses the natural phenomena are specified as divine signs stating the knowledge, the wisdom and the power of God, such as:

Most surely in the creation of the heavens and the earth and the alternation of the night and the day, and the ships that run in the sea with that which profits men and the water that God sends down from the cloud, then gives life with it to the earth after its death and spreads in it all (kinds of) animals, and the changing of the winds and the clouds made subservient between the heaven and the earth, there are signs for a people who understand. (2:164)²

There are some verses which invite mankind's attention to the resurrection of nature following the rain and to the creation of the heaven, the earth and the alternation of the night and the day and also point to how God is able to bring about the Resurrection, e.g:

And among His signs is this, that you see the earth still, but when We send down on it the water, it stirs and swells: most

¹ See also verses 24:41, 17:44, 59:1, 61:1, 57:1, 64:1 and 62:1.

² See also verses 3:191-192, 6:97, 14:32-34, 16:10-16, 31:31, 35:12 and 13, 42:32-35, 45:3-6, 51:20 and 55:19-25.

surely He who gives it life is the Giver of life to the dead surely
He has power over all things. (41.39)³

Some verses state that natural phenomena have diverse benefits for human beings, like the rain which provides water to drink and causes different fruits to grow and provide herbage for the animals. And the sea is subservient so that man may eat fresh flesh from it and bring forth from it ornaments.

There are some traditions that recommend that Muslims should plant, farm and dig wells. This shows that these activities are regarded by Islam as being very important in human beings' lives and these play a key role in the environment. Some of these traditions are set out below. The holy Prophet (s.a.w.a.s) said:

There are six things that will be useful for the believer even after his death: a child who ask God's forgiveness for him, a book (knowledge) that he leaves behind after him, a tree that he plants, a well which he digs, a charity to which he gives, and good conduct that he establishes and is acted upon after him. 'Whoever plants a tree then a human or a creature of God eats its fruit, it will be considered as a charity and almsgiving for him.'⁴

Imam Sadiq (a.s) said:
Farm and plant! I swear by God that there is not any action more lawful and better than it.⁵
The best action is the farm.⁶
The greater alchemy and elixir is the farm.⁸

Sanctity of water

In Islamic culture the earth and especially the water are very important. The word water is used in the holy Qur'an about 60 times. Water is the

origin and the source of life (21.30). Water is pure and purifying (25.48). Imam Sadiq (a.s.) said: 'Surely God made the earth pure as he made the water pure.'⁹ A Muslim who wants to perform a prayer anywhere or to circumambulate the Ka'bah in Mecca should be ritually pure and to be ritually pure he needs to use water (or earth if water is not available) in a special manner. He needs to be ritually pure to touch the holy Quran as well. In some traditions the expression 'the flowing water' in the verse 67.30 is taken as an indication of the hidden Imam, al-Mahdi (a.s.). And also the expression 'the abundant water' in the verse (72.16) is taken as an indication of abundant knowledge and faith. These show the importance and sanctity of water in the Islamic culture.

Significance of earth

The earth is also important. Every Muslim in his prayer has to perform prostration (*sajdah*) on the earth, and he should use it in a special manner to perform the prayer if he could not find water or if using water is harmful. The earth is the origin of the human being. The Qur'an says:

From it (earth) We created you and into it We shall send you back and from it will We raise you a second time. (20.55)
God made the earth for the human being a cradle (resting place). (20.53 and 78.6)

The earth is the mother of the human. The holy Prophet (a.s.) said: 'Preserve the earth because it is your mother.'¹⁰

Such emphasis in the Qur'an on nature and natural phenomena shows the importance and the worthiness of them, but it does not mean that human beings should not use and dominate them. Indeed, God has created them in the way that man can benefit from them, subject, however, to instructions and guidelines expressed in religious sources. These will be discussed later. For example, the Qur'an says:

And the earth, He has set it for living creatures. (55.10)
He it is who created for you all that is in the earth. (2.29; 45.13;
31.20; 16.10-14; 22.65; 14.32-34)

⁹ Hurr Amili, *Wasai'i al-Shi'ah*, Vol. 1, p. 133.
¹⁰ *Nahj al-Faakh*, No. 1130.

³ See also verses: 46.33, 16.65, 17.98-99, 40.57-59, 50.9-11.
⁴ Hurr Amili, *Wasai'i al-Shi'ah*, Vol. 2, p. 44. In another *hadith*, giving water to a plant is likened to giving a drink to a thirsty believer (*ibid.*, Vol. 12, p. 25).
⁵ *Nahj al-Faakh*, No. 567.
⁶ *Al-Kafi*, Vol. 5, p. 260.
⁷ *Ibid.*
⁸ *Ibid.*

In some verses the benefits of these phenomena for human beings in particular are mentioned:

And He created the cattle for you, you have in them warm clothing and many (uses) advantages, and of them do you eat. And there is beauty in them for you when you drive them back home and when you send them forth to pasture. And they carry your heavy loads to places and lands which you could not reach but with distress of the souls, most surely your Lord is Compassionate, Merciful. And (He made) horses and mules and asses that you might ride upon them and as ornament, and He creates that which you do not know. (16:5-8).

That We pour down the water pouring (it) down in abundance, Then We cleave the earth, cleaving (it) asunder, then We cause to grow therein the grain, and grapes and (green fodder) clover and the olive trees and the palm trees and gardens of thick foliage and fruits and herbage a provision for you and for your cattle. (80:25-32)

There are some Qur'anic verses and Islamic *hadiths* which state the spiritual or psychological benefits of the plants:

And send down for you water from the cloud; then we cause to grow thereby beautiful and delightful gardens. (27:60; 50:7; 22:5)

The holy Prophet (a.s.) said:

There are three things which cause the brightness of the eyes: to look at the greenery, the running water and the beautiful face.¹¹

In Islamic culture, nature and natural phenomena are important, worthy and sacred. By reflecting upon them as signs of God and manifestation of the divine attributes and names, human beings can understand and discover God's majesty and lordly unity and remember the Day of the Resurrection. In addition, man can use nature and natural phenomena in his physical as well as spiritual life. Every Muslim in his

11 *Nahy al-Fushah*, No. 1291, and *Bihar al-Anwar*, Vol. 3, p. 129.

prayer and sacred rites is familiar with nature because in his ritual ablution he uses water and he prostrates on the earth and for the determination of the time of the prayer and the direction of Mecca he observes and seeks the aid of the sky and the position of the sun.

HUMANITY FROM AN ISLAMIC VIEWPOINT

Here I will not present the Islamic viewpoint on all aspects of human beings but only focus on the specific aspects which are related to the current subject. From an Islamic point of view, the human being is the vicegerent of God on the earth (2:30; 6:165; 35:39). When we say that the human being is vicegerent of God and He has made subservient to him whatsoever is in the heavens and whatsoever is in the earth, it does not mean that he can use them as he wishes without any limitation. As the vicegerent and representative of God on earth he has to be responsible and accordingly subject to God's commands to cultivate the land and construct towns and cities in which to live. The holy Quran says:

He is the one who created you from the earth and settled you upon it so that you might cultivate it and construct towns. (11:61)

As a vicegerent of God, human beings should follow God's instructions and commands and behave according to God's will and consent. There are some who attribute the destruction and crisis of the environment to divine religions, and argue that religious doctrine that introduces the human being as a vicegerent of God permits human beings to act as they wish. In my view this is not so, because the very same religions have also provided instructions and enjoined man to act according to them. Moreover, the crisis of the environment has manifested itself in the last two centuries but this doctrine of vicegerency of God dates to the advent of divine religions.

The guidance of God is set out in the holy Qur'an. The holy Qur'an states that God has created men for worship (51:56). It is in the light of the worship and through worshipping God that they achieve proximity to God and come near to God. Nearness to God has been sought by the infallible Imams. For example, Imam Sajjad (a.s.) says:

My God, so make us travel on the roads that arrive at thee and set us in motion on to the paths that nears to reaching thee! (The whispered prayer of the Devotes)

God has created nature for human beings so that they can use it to achieve nearness to God. So to reach that supreme goal he should observe the rights of fellow human beings and present and future generations to use the resources of nature. Nobody is permitted to use nature in a manner that tangles on another's rights. Natural phenomena have rights as well. So to be the vicegerent of God limits and restrains the behaviour of human beings. The main cause of the destruction of the nature is not its domination or subjugation but failure to observe the moral principles for the appropriate use of nature. If human beings submit to divine law and obey it, it will help to solve environmental problems. The holy Quran says that the result of following carnal desires is corruption:

And should the truth follow their low (carnal) desires surely the heavens and the earth and all those who are therein would have perished and been corrupted. (23.71)

According to the Quranic verses, there is a close relationship between the action and the behaviour of man and natural phenomena, i.e. good actions and behaviour have a positive effect on nature and bad actions and behaviour have a negative effect on it. The holy Qur'an says:

And if the people of the towns had believed and guarded (against evil) We would certainly have opened up for them blessings from the heaven and the earth, but they rejected, so we overtook them for what they had earned. (7.96)

INSTRUCTIONS AND RECOMMENDATIONS

As highlighted in the two previous sections, natural phenomena are signs of God and manifestation of His divine attributes and names. They are important and worthy and are created for man so that he can utilize them to achieve his supreme goal, i.e. to obtain nearness to God. Such use and outlook requires responsible behaviour. Moreover there are specific

Raesian—Environmental Ethics: an Islamic Viewpoint

instructions, recommendations and guidance in the religious sources which guide human beings as to how to use nature and natural phenomena. We can categorize these instructions into two main groups:

- I General instructions
- II Particular instructions

I GENERAL INSTRUCTIONS

I.1 To observe purity and cleanliness

Purity and cleanliness are very important in Islam. Prescribed prayer is most important in Islam but without ritual purity (which is a precondition for prescribed prayer) such prayer would be void. There are three words which have the same meaning 'The Most Holy' (*Quddus*), 'The Purified' (*Muthhar*) and 'The Pure' (*Tayyib*). These all mean and connote purity. Purity in Islamic culture has two meanings: exoteric and esoteric. In the holy Qur'an, God is characterized by holiness (59.23; 62.1). The angel of revelation who strengthened Jesus is characterized by holiness as well (16.102; 2.87 and 253:5.110). The holy Qur'an is characterized by purity as well (98.2; 80.14). The holy Prophet and his household (*Ahmad bayt*) (a.s.) are characterized by purity also (33.33). The word of God is introduced as a purified word (14.24). The life of the faithful and believer is a purified life: (16.97). The reason for being lawful or unlawful is to be pure or impure (7.157; 5.4-5). Paradise (Heaven) is characterized by purification (61.12). The holy Qur'an states:

Surely God loves those who turn much (to Him) and He loves those who purify themselves. (2.222)

Surely those who are esoteric and spiritually purified are exoterically purified as well. In respect to cleanliness, the Prophet said: 'Surely God is clean and loves the clean, so clean your courtyard.'¹² He also said: 'Be clean as you can.'¹³ He also said: 'Cleanliness is next to godliness.'¹⁴ He also said: 'Surely Islam is clean so be clean, because nobody

¹² *Nahj al-Fasahah*, No. 703.

¹³ *Ibid.*, No. 1182.

¹⁴ *Ibid.*, No. 3161.

can enter Paradise except Who is Clean.¹⁵ The Prophet told his wife: 'Surely the clothes glorify, (but) when they are dirty and unclean they do not glorify.¹⁶ Imam 'Ali (a.s.) said: 'The tidy (clean) clothes eliminate the grief and the sorrow.¹⁷ This *hadith* mentions the spiritual effect of cleanliness on the human's soul. Thus, to be a believer requires one to be clean and purified.

1.2 To observe trust

The believer is a trustee. The holy Qur'an states: 'Those who faithfully observe their trusts and covenants' (23.8). God commands the believer to make over trusts to their owners (4.58). It is clear that nature is the divine trust and the trust of future generations in our hands so we should not use or utilize it in the manner that the next generation's rights are trampled on or in such manner that does not recognise the rights of the next generations.

1.3 Being moderate and balanced

Moderation is recommended in the religious texts. The believer should be a moderate person in all aspects of his life including the use or utilization of nature. The holy Qur'an introduces the Islamic nation as a moderate nation (2.143). Describing the servants of God, the holy Qur'an says: 'Those who, when they spend are not extravagant and not miserly, but hold a just (balance) between those extremes.' (25.67) The holy Prophet said: 'The best of the affairs is the medium (median) one.'¹⁸ He also said: 'Whoever is moderate he will not become poor.'¹⁹

1.4 Thankfulness

One of the recommendations emphasised in the holy Qur'an is exhorting gratefulness and forbidding ungratefulness. The quality of gratefulness is not only oral and verbal but it should be practical as well. Real gratefulness is that one appreciates and uses the grace of God according to His will and consent; otherwise it will be ungratefulness. Among signs of ungratefulness are the destruction of natural phenomena and resources. This is forbidden and has a detrimental effect. In this regard, God says: 'And whoever changes the grace of God after it has come to him, then surely God is strict in punishment.' (2.211) 'Have you not seen those who have changed God's favour for ungratefulness and made their people to alight in to the abode of perdition?' (14.28) 'Eat of the good things we have given you for sustenance and be not inordinate with respect to them ...' (20.81).

1.5 To forbid extravagance

One of the dangers and perils that threaten society, and in particular the environment, is extravagance. The origin of this is greed and avarice. It is controlled by religious teachings. Exceeding bounds in using nature is extravagance, something that is forbidden in many Quranic verses, such as: 'And eat and drink and be not extravagant, surely He does not love the extravagant' (7.31); 'And do not squander wastefully. Surely the squanderers are the fellows of the Satans and the Satan is ever ungrateful to his Lord' (17.26-27) and 'And He it is who produces gardens (of vine) trellised and untrellised and date palms and seed—crops of diverse flavours the produce of which fruits are of various sorts. And olives and pomegranates, like and unlike, eat of its fruit when it bears fruit and pay the due of it on the day of its reaping and do not act extravagantly surely He does not love the extravagant.' (6.141)

1.6 To forbid damage

One of the most important legal principles is that nobody can damage and hurt human beings and other creatures. This is the content of the well-known *hadith* of *La zarara wa la zirara fi al-Islam* of the Prophet. According to this *hadith*, nobody can inflict any damage or harm to himself and to others.

15 *Ibid.*, 612.

16 *Mizan al-Hikmah*, Vol. 10, No. 3898.

17 *Masa'il al-Shi'ah*, Vol. 3, p. 346.

18 *Nahj al-Fasahah*, No. 1481.

19 *Ibid.*, No. 2509.

In many verses corruption is forbidden. It has a broad meaning and it is not limited to moral corruption only. So contaminating and destroying stock also constitutes corruption. The holy Qur'an says: 'Whenever they endeavour to fill the earth with corruption, slaughtering men and laying waste to their crops, generation after generation and God does not love corruption.' (2:205) and 'do not sow the seeds of corruption on earth after God has made it safe and secure.' (7:56 and 85)²⁰

II PARTICULAR INSTRUCTIONS

II.1 To recommend to construct, build on and develop the earth

God created the earth and He has set it for living creatures (55:10). He it is who made the earth manageable and tractable (67:15). God has provided means for people's livelihood and so man should exploit the earth and construct in it. The holy Qur'an says: 'He is the one who created you from the earth and settled you upon it, so that you might cultivate the land and construct towns and cities in which to live.' (11:61). Imam 'Ali (a.s.) in his letter to his governor said: 'You should be more considerate towards the construction (physical development) of the land than the obtaining of the land tax.'²¹ Elsewhere, he said: 'Fear God regarding His servants and lands, so you are responsible for the lands and the animals.'²²

II.2 To observe the rights of animals

Animals are part of the environment, they have rights and human beings are responsible for them. In addition to the previous *hadith* from Imam 'Ali (a.s.), one may refer to a *hadith* from Imam Sadiq (a.s.): 'There are six rights for beasts that their owners should observe: He should not overburden that which has not the strength to bear and should not ride her while he is speaking and when stops he should begin to give her provisions and he should not brand and burn her and should not strike her face because

20 See also verses 13:25; 16:88; 26:152; 27:48; 47:22.

21 *Nahj al-Balaghah*, Letter No.53.

22 *Ibid.*, Sermon 167.

she glorifies God and when passing by the water he should let her to drink.²³ Imam 'Ali condemned urinating in the water because there are animate creatures in it.²⁴

II.3 To forbid harming animals and birds

There are some Islamic *hadith* that forbid harming animals and birds. The holy Prophet (a.s.) said: 'Whoever kills an sparrow without any reason God will question him about it on the day of judgment.'²⁵ It is forbidden to hunt birds for fun.²⁶ There is a *hadith* which states that the holy Prophet (a.s.) said: 'A woman will be put in the hell because she imprisoned a cat till the cat died.'²⁷

II.4 To forbid water pollution

Water has a key role in our life and other creatures' life as well, so Islam emphasises keeping it pure and clean. In addition to previous *hadiths*, one may refer to the following *hadith* from Bagir (a.s.), in which he said: 'Do not urinate in pure water!'²⁸

II.5 To forbid to cut down trees

Trees have a key role in our life: they make the area green and the air pure and keep the earth from flooding. So we should plant trees and preserve them. According to Islam planting a tree is worship, so a special prayer should be recited. Cutting down trees is forbidden; the holy Prophet (a.s.) said: 'Do not cut down a tree except you are compelled to!'²⁹ Before battles, he always gave instructions to his soldiers not to harm women, children, the elderly, and those who surrendered and not to destroy farms

23 *Al-Kafi*, Vol. 6, p. 537.

24 *Wasa'il al-Shi'ah*, Vol. 1 p. 240.

25 *Nahj al-Balaghah*, No. 2224 and No. 2610.

26 See e.g. *Wasa'il al-Shi'ah*, Vol. 8, p. 481.

27 *Nahj al-Balaghah*, No. 1559.

28 *Wasa'il al-Shi'ah*, Vol. 1, pp. 240 and 241.

29 *Wasa'il al-Shi'ah*, Vol. 11, pp. 43 and 44.

and gardens. From these instructions we can understand the importance of not destroying farms and gardens.

II. 6 To forbid noise pollution

Speaking loudly is condemned. The holy Qur'an states that Luqman said to his son while he admonished him: 'Lower your voice, surely the most hateful of voice is braying of the asses.' (31: 19). Imam 'Ali (a.s.) said: 'One of the signs of the faith is the lowering of the voice.'³⁰

REFLECTIONS ON ISLAMIC BIOETHICS: A SHI'ITE PERSPECTIVE¹

Mohammad Ali Shomali

WHERE DOES AUTHORITY LIE IN ISLAMIC BIOETHICS?

Islamic bioethics is an extension of Islamic ethics, which is itself based on the Qur'an, the Sunnah and reason. Instead of reason, Sunni Muslims may refer to things like *ijma'* (consensus) and *qiyas* (analogy). For the Shi'a, *ijma'* and *qiyas* as such are not accepted, since they by themselves cannot prove anything. On the whole bioethical rulings of the Shi'a and Sunni do not differ fundamentally, especially in respect to those problems in which direct guidance has been received from the Qur'an and Sunnah. When problems become more speculative the positions are more likely to differ.

In Shi'a Islam, the determination of valid religious practice, including bioethical issues, is left to Grand Ayatollahs (*maraji' taqlid*) who are the most qualified jurists/prudents of each generation. They provide rulings on whether a given action is forbidden, discouraged, neutral, recommended or obligatory. It should be noted that every Ayatollah is required to refer directly to the main sources i.e. the Qur'an, the Sunnah and reason, and discover the Islamic teachings in every case. Although he studies carefully and respectfully the works of his predecessors, an Ayatollah must develop his own original understanding and must not follow any other Ayatollah, however great the other might have been. As said above, even consensus among people or scholars by itself is not a proof. This has given some kind of dynamism and vitality to Shi'a thought. Elsewhere I have written:

Thus, for the Shi'a consensus in itself is not a proof. It only works when it leads to the discovery of Sunnah. Accordingly,

¹ Some aspects of Islamic bioethics are studied in M. A. Shomali, 'Value of Life in Islam', in *Catholicism and Shi'a in Dialogue: Studies in Theology & Spirituality*, Melbourne, 2004. Also at the conference Professor Celia Deane Drummond presented a paper 'Seeking Practical Wisdom: A Roman Catholic Approach to Genetics as a Case Study in Bioethics'. Her main thoughts can be found in *Genetics and Christian Ethics*, Cambridge University Press, 2006.

³⁰ *Chunur al-Hikam*, Vol. 3, p. 453.