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JOHN MUIR

SCIENTIST OR THEOLOGIAN?

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Submitted in fulfilment of the requirements for the
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Abstract

John Muir (1838 - 1914) is widely known as the spokesperson of the American movement for the preservation of wilderness, mainly as a result of his leadership of the campaign opposing the creation of a dam in the Hetch Hetchy Valley in the Sierra. Born in Scotland, Muir was brought up in a strict household which adhered to the Reformed Protestant tradition. At the age of eleven years he moved to America where his family settled. Muir integrated Biblical language and imagery, Romanticism and science to develop his idiosyncratic theology of nature during his years in the Sierra, while studying the natural history and geology of that place. This thesis examines Muir's books in order to answer the question: Is Muir a Scientist or a Theologian? It concludes that Muir's personal understanding of God and Creation formed the basis of his writing, that his religious ideas infused his scientific thinking, and that these were evident in his arguments for preservation of wild places.

Contents

Abstract.....	1
Contents	2
Acknowledgements	4
Author’s Declaration.....	5
Introduction.....	6
Aim of thesis	7
Sources of information consulted for this thesis	8
The Development of the Argument.....	9
Chapter 1: John Muir’s Early Religious Beliefs and Experiences of Nature: 1838 - 1863	11
Chapter 2: The 1000 Mile Walk to the Gulf	33
Prologue	33
The One Thousand Mile Walk: Botanic Observation and Religious Interpretation of Nature	38
The One Thousand Mile Walk: Muir challenges Biblical Doctrines	45
The Merging of Science and Religion	55
Chapter 3: John Muir in the Sierra	57
Science and Religion in The Mountains of California	60
Reading Sacred Nature in Yosemite	66
‘Reading Nature’ - Muir and the English and American Romantics	75
Reading Nature Scientifically in Yosemite.....	78
Muir - Scientist or Religious Thinker?.....	84
Chapter 4: Preaching Preservation	87
Context	87
Preserving forests and other wilderness areas.....	87
The Battle for Hetch Hetchy	94

Conclusion: John Muir Scientist or Theologian of Nature?	101
Bibliography	108

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Author's Declaration

I declare that, except where reference is made in the citations to the contribution of others, this thesis is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

P A Noone

August 2017

Introduction

Debates about the damage which can be done to the natural environment as a result of schemes intended to improve people's lives, e.g. building pipelines to carry oil, the construction of windmills providing renewable sources of power, largescale mining developments and fracking for oil deposits, have become increasingly common in the twentieth and twenty first centuries. A debate which occurred in the United States of America between 1906 and 1913 was the first widespread public debate of this kind. It had been proposed that a river in the Hetch Hetchy Valley in the Sierra should be damned to provide a source of water for the inhabitants of San Francisco. The debate ended with a vote in the Senate which agreed the creation of the dam. John Muir (1838 - 1914), a preservationist who advocated the retention of the landscape as it was, and a naturalist, was the leader of those opposing the creation of the dam.

John Muir was a key spokesperson in the movement to create national parks in America and the first president of the Sierra Club, the world's first national conservation society, founded in 1892. In broad terms, the arguments which were used on either side in the Hetch Hetchy debate can be described as 'utilitarian', that is action which benefits human wellbeing, or 'idealist', that is, the preservation of an ideal which has its origin beyond the human mind. The ideal can have a religious basis, e.g. in the case of natural world, an acceptance that this is the product of a Creator and therefore sacred. In the debate, John Muir took both idealist and utilitarian positions. He argued that the Hetch Hetchy Valley was 'sacred' and should not therefore be destroyed, and also that natural places provided physical and spiritual enrichment to those who visited them. Muir's idealist view at this time was a succinct expression of the personal theology of nature which he had been developing throughout his adult life.

Muir is now well known in the United States and beyond as a conservationist - one who advocates wise use of the natural landscape consistent with maintaining it - and his writings are widely read. There is therefore an emphasis on his

utilitarian perspective. This emphasis acknowledges his nature writing which has contributed to the development of an ecological perspective. This perspective allows attitudes to the natural world to be assessed in terms of their benefits to human wellbeing, and, in addition, to the wellbeing of the whole earth. The religious content of Muir's nature writing receives much less attention. Muir's theological approach to humankind's relationship with the natural world was one of symbiosis, rather than the then prevalent biblical perception of humankind's dominance.

Aim of thesis

Muir, born in Dunbar, Scotland, was brought up in an authoritarian Christian household. In this household, the Bible was read regularly and its words were the sole source of guidance on how the family should live. Muir was made to memorize the texts of both books of the Bible and its words and imagery became deeply embedded in his memory. But as a result of a variety of personal and cultural influences, Muir developed his personal theology of nature. This infused and underpinned his perceptions and interpretation of the natural world. Religious themes and ideas are persistently present in Muir's nature writings.

It will be argued that John Muir was first and foremost a 'theologian of nature', defined as one who interprets the 'presence and attributes of God', in 'nature', defined as, 'a place of plants, animals and non-living products of the earth itself, on which humankind's intervention is minimal'.¹ In his writing this took precedence over his observations as a scientist - 'a person who engages in the systematic collection through observation and/or experimentation of classifiable and reproducible facts about the natural world'.²

¹ Definitions adapted from Oxford English Dictionary, <http://www.oed.com.ezproxy.lib.gla.ac.uk/>. Muir would have had his own views as to the extent to which man intervened in 'nature'

² Adapted from *ibid*.

Sources of information consulted for this thesis

Muir's books, published in the closing decade of his life and also posthumously, are the primary sources of information used in this account of the development of his religious and scientific ideas. They provide the narrative Muir created of his life. He described his upbringing and early adult years in *The Story of My Boyhood and Youth* (1913).³ *The Thousand Mile Walk to the Gulf* (1916)⁴ provides Muir's account of how he first challenged the religious beliefs of his upbringing. Material from Muir's journal account of his journey between Wisconsin and Florida contained in the Holt-Atherton Collection of John Muir's papers, has also been accessed.⁵ Other primary sources are *My First Summer in the Sierra* (1911),⁶ *The Mountains of California* (1894),⁷ *Our National Parks* (1901),⁸ *The Yosemite* (1912)⁹ and *John Muir - Nature Writings*, selected by William Cronon¹⁰, which contains a selection of Muir's essays.¹¹ These primary sources are supplemented by *John of the Mountains - The Unpublished Journals of John Muir*, *John Muir - His Life and Letters and Other Writings*, and *Kindred and Related Spirits - The Letters of John Muir and Jeanne C Carr* which are all sources of Muir's journals and letters.¹² Secondary sources include: Donald Worster's biography *A Passion for Nature. the Life of John Muir*,¹³ Michael P

³ John Muir, "The Story of My Boyhood and Youth," in *The Eight Wilderness Discovery Books*, ed. Terry Gifford (Great Britain and The United States: Diadem Books Ltd, 1913).

⁴ "A Thousand Mile Walk to the Gulf," in *John Muir. The Eight Wilderness Discovery Books*, ed. Terry Gifford (London and Seattle: Diadem Books Ltd, 1916).

⁵ "John Muir Papers," <http://www.pacific.edu/Library/Find/Holt-Atherton-Special-Collections/John-Muir-Papers.html>. Accessed August 2016.

⁶ "My First Summer in the Sierra," in *John Muir the Eight Wilderness Discovery Books*, ed. Terry Gifford (Great Britain and The United States: Diadem Books and The Mountaineers, 1911).

⁷ "The Mountains of California," in *John Muir. The Eight Wilderness Discovery Books*, ed. Terry Gifford (London, Seattle: Diadem Books, 1894).

⁸ "Our National Parks," in *John Muir the Eight Wilderness Discovery Books*, ed. Terry Gifford (London and Seattle: Diadem Books, 1901).

⁹ "The Yosemite," in *John Muir the Eight Wilderness Discovery Books*, ed. Terry Gifford (London and Seattle: Diadem Books, 1912).

¹⁰ *Nature Writings* (United States: Library of America with Penguin Books, 1997).

¹¹ In this thesis the sources of quotations from Muir's writing are the texts of these books in Terry Gifford, ed. *John Muir. The Eight Wilderness Discovery Books* (London and Seattle: Diadem Books, 1992).

¹² Linnie Marsh Wolfe, *John of the Mountains. The Unpublished Journals of John Muir* (Wisconsin, United States: The University of Wisconsin Press, 1966); William Frederick Bade, "John Muir - His Life and Letters and Other Writings," in *John Muir: His Life and Letters and Other Writings*, ed. Terry Gifford (Great Britain and the United States: Baton Wicks Publications London and The Mountaineers Seattle, 1996); Johnna Gisell, ed. *Kindred and Related Spirits. The Letters of John Muir and Jeanne C Carr* (Salt Lake City: University of Utah Press, 2001).

¹³ Donald Worster, *A Passion for Nature. The Life of John Muir* (New York: Oxford University Press, 2008).

Cohen's *The Pathless Way - John Muir and the American Wilderness*,¹⁴ which examines Muir's journey towards his place in the wilderness, Dennis C Williams' *God's Wilds - John Muir's Vision of Nature*,¹⁵ which argues for Muir's strong Christian perspective and Steven Holmes' *The Young John Muir - An Environmental Biography*,¹⁶ which seeks to understand the influences on Muir of psychological relationships with 'significant others' and with the physical environments in which he wandered. Other secondary sources used are referenced in the appropriate place within the text and are listed in the Bibliography.

In this thesis, the model used in examining Muir's writing is that of a late eighteenth century/nineteenth century cultural sensibility in which Biblical texts, aesthetics, romanticism, science and practical experience are combined to give an interpretation of the beauty of nature incorporating harmony, unity and the sacred. This culminates in an environmental ethic of how humankind might exist in the natural world. In the thesis the term 'nature' is used to refer to the natural world, while 'Nature' is used refer to an actively creating 'natura naturans',¹⁷ to a sacred nature to which Muir referred in his writing. This latter term will be discussed in the thesis.

The Development of the Argument

The thesis documents the way John Muir's theology of nature emerged. It examines Muir's scientific development and knowledge and how his developing theology of nature is critical to his science. Chapter One provides an account of the way the religion of the household dominated John Muir's childhood and adolescence, his interest in nature from an early age, his attempts to educate himself through reading and the practical skills he taught himself. The chapter also includes the influence of university and the start of his lifelong interest in

¹⁴ Michael P Cohen, *The Pathless Way: John Muir and American Wilderness* (University of Wisconsin Press, 1984).

¹⁵ Dennis C Williams, *God's Wilds John Muir's Vision of Nature* (Texas: Texas A & M University Press, 2002).

¹⁶ Steven J Holmes, *The Young John Muir: An Environmental Biography* (United States: The University of Wisconsin Press, 1999).

¹⁷ The term 'natura naturans' was used by Samuel Taylor Coleridge to refer to refer to an actively creating nature as opposed to 'natura naturata', that is nature as a already created.

botany and his early wanderings following up this interest. It culminates with the episode of loss of vision which led him to seek a new direction in his early adult life. Chapter Two shows how Muir examined his orthodox protestant beliefs while on a solitary walk from Wisconsin to Florida, all the while practising his botanical skills and merging his increasing botanical knowledge with his emerging interpretation of the divine in the natural world. In Chapter Three the way in which Muir's exposure to the Sierra landscape led to his most extensive articulation of his eclectic, multifaceted theology of nature is examined. This was influenced to a great degree by prevailing romantic interpretations of the relationship between man and nature. But in the Sierra his scientific perspective is also evident in his geological investigations and his then controversial conclusion concerning the role of glaciers in the formation of Yosemite Valley. The close relationship of his religious and scientific perspectives is revealed in his conception of *continuing* creation - the work of an active Nature. Chapter Four examines Muir's opposition to the damming of the Hetch Hetchy Valley to provide a source of water for the population of San Francisco. Muir's arguments in this debate illustrate the merging of the mature Muir's scientific and religious perspectives, the latter remaining a powerful influence in his arguments. It also illustrates the complex problems involved in arguing for preservation. I conclude that Muir's strong personal religious perspective underpinned his science. This is illustrated with respect to his main religious themes - God and Creation, from which he derived the position he took in the Hetch Hetchy controversy. Muir's inventive way of thinking led him to connect science and religion in a way which was not generally characteristic of the nineteenth century.

Chapter 1: John Muir's Early Religious Beliefs and Experiences of Nature: 1838 - 1863

'When I was a boy in Scotland I was fond of everything that was wild and all my life I've been growing fonder and fonder of wild places and wild creatures'.¹ This, the opening sentence of the first chapter of John Muir's *The Story of My Boyhood and Youth*, reflects his appreciation of 'wild places' in the natural world which, he recalled, was present throughout his life. The book was published in 1913, the year before he died at the age of seventy-six years. Elsewhere in that book, he described how 'father made me learn so many Bible verses every day that by the time I was eleven years of age I had about three fourths of the Old Testament and all of the New by heart and sore flesh', the latter the result of severe thrashings as punishment for poor performance.² He revealed in his books his thorough knowledge of biblical texts which were engraved in his memory from his earliest years. When he entered university, Muir was keen to learn about developing scientific understanding of the physical and natural sciences and the methods for investigating these. Biblical texts, the natural world and science shaped the whole of Muir's life work and his writing.

In his books and other writings, John Muir interpreted the natural world from two closely related perspectives, that of a religious thinker and that of a scientist. As the quotations show, this approach had its origins in the experiences of his childhood and youth. It is not surprising that his autobiography, conceived in his late sixties and early seventies after a life spent engaging with the natural world, should open with a statement about the origins of his fondness for wild places, but it is clear that his knowledge of Biblical texts also dates back to his earliest childhood and may be as important or even more important in determining his interpretation of the natural world. The origin and development of Muir's twin perspectives, from his childhood in 1838 to 1863, when he left the university is the subject of this chapter.

¹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 27.

² *Ibid.*, p 36.

Muir's retrospective account of his life in *The Story of My Boyhood and Youth* is the main source of information about his early years. William Bade's *John Muir His Life, Letters and Other Writings*, published in 1924³ and Linnie Marsh-Wolfe's *John of the Mountains The Unpublished Journals of John Muir* (1938)⁴ and *Son of the Wilderness The Life of John Muir* (1945)⁵ supplement Muir's own story. These latter three books were written at the request of Muir's family and will incorporate accounts of his life as Muir and his family recounted it to them. Bade's book incorporates material from a second volume of his autobiography which Muir was in the process of preparing before his death. Donald Worster's well researched biography, *A Passion for Nature The life of John Muir* (2008) has also been consulted.

In his autobiography Muir describes his childhood as dominated by the Bible, which his father Daniel believed provided all the guidance needed for the conduct of daily life and for determining one's future aspirations. It was Daniel Muir's interpretation of these texts to which his family was obliged to adhere, in Dunbar, Scotland and later in America where the family moved when John was eleven and after he had received about eight years of formal education. Daniel Muir's authoritarian control over the organisation of the household was directed towards enacting his interpretation of Biblical guidance. In the evenings, the family attended prayers led by him. On Sundays, a sermon was preached to the family by their father. As referred to above memorization of Biblical texts played a key role in educating his children in a Christian way of life. Biblical language and imagery would emerge in Muir's journals and books throughout his life. The older Muir's control of family routine went far beyond daily Bible readings. He controlled every aspect of their lives, from the sparse diet which was allowed to his children's opportunities to mix with the world outside the home, all ostensibly to ensure that God's word prevailed. Practically, he was concerned for his sons' moral and physical welfare. Mingling with other children, Daniel Muir believed, might result in them learning immoral behaviour such as

³ Bade, "John Muir - His Life and Letters and Other Writings."

⁴ Linnie Marsh Wolfe, *John of the Mountains. The Unpublished Journals of John Muir* (USA: The University of Wisconsin Press, 1938).

⁵ Linnie Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir* (Wisconsin: University of Wisconsin Press, 1945).

swearing and fighting. But John and his brothers escaped from these restrictions as often as they could and were not restrained by the knowledge of the ‘thrashing’ which would result if their father found out that they had been beyond the confines of the home and garden. Muir’s mother, who surprisingly received little mention in the autobiography, protected her children when she could from their father’s punishments. She was a gentle caring woman, talented in the arts, but one who appeared to accept the subservient role given her by her husband. If she ever countermanded his wishes, it was in his absence.

Biblical texts as interpreted by Daniel Muir gave his son an image of a God whom Muir rejected in his teenage years. He was later to construct his own image. Muir’s father’s God was a wrathful being, who demanded retribution for ‘sin’. Trivial misdemeanours were seen as disobedience not only to his father, but also to God, and the boys received severe physical punishment for these. In Wisconsin, America, Muir worked long hours as a farmhand for his father between the ages of eleven and twenty-three years, receiving no more formal schooling in this period. He recounts how as father and sons watched the bonfire they had made to burn the wood they had collected when clearing the land, Daniel Muir commented, ‘Now John, just think of hellfire, that is so many times hotter. Into that fire *all bad boys*, with sinners of every sort who disobey God, will be cast....and their sufferings will never, never end, because neither the sinners nor the fire can die’ [my italics]. Muir’s response in his book was that ‘those fire lessons quickly faded away in the blithe wilderness air; for no fire can be hotter than the heavenly fire of faith and hope that burns in every healthy boy’s heart’.⁶

Daniel Muir’s views as to how religious communities should be organised was at variance with that of many of his contemporaries in Dunbar. He vehemently opposed the hierarchical structure of the Church of Scotland, especially the fact that the members of the Kirk and other councils were appointed by the landed gentry, and that the clergy were the only ones acknowledged as having the theological training and thereby the authority to interpret biblical teaching. He

⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 49.

vociferously rejected the Church of Scotland, a matter of great concern to his father-in law, an elder in that Church. Instead, Daniel Muir attended the Secession Church in Dunbar. Above all he wanted to be a preacher and interpreter of the Bible himself.⁷ In 1847, he heard a sermon preached by Alexander Campbell (1788 - 1862), one of the founders of the Campbellites, a religious congregation which subsequently became known as the Disciples of Christ. The widely quoted 'motto' of the Disciples of Christ, 'Where Scripture speaks, we speak; where Scripture is silent, we are silent' was derived from an address which Thomas Campbell (1777 - 1844), the father of Alexander Campbell, gave in 1809. Daniel Muir recognized this 'motto' as consistent with his own thinking. He promptly joined the Disciples of Christ, and in 1847 he moved his family to a part of America where the Disciples had an active following, including several Scots from in and around Dunbar with whom Daniel was acquainted.

At that time, the Disciples of Christ was a rapidly growing Christian sect in America, which had emerged in the first decade of the nineteenth century. It was led by Thomas and Alexander Campbell, joined in 1832 by Barton Stone (1772 -1844). Alexander had been educated at Glasgow University and had been exposed to Scottish Common Sense Philosophy, which underlay the religious practice of the Disciples. Bradley Pickens summarises this philosophy as 'an innate faculty of the mind that is found in all humans, which gives an observer the ability to immediately and directly comprehend the existence and character of external objects through the five senses, without the need for reason to prove their existence'.⁸ This was consistent with the Disciples of Christ's concept of an egalitarian and autonomous Christian congregation, without clergy or hierarchy, in which every member had the capacity to read and understand the scriptures for him/herself, to base his/her life on its teachings and to preach to others. The congregation of the Disciples of Christ was conceived as consistent with the purity of the organisation of the early Christian church. New Testament

⁷ Worster, *A Passion for Nature. The Life of John Muir*, p 37.

⁸ Bradley J Pickens, "The Emergence of an American, Capitalist Ecclesiology in the Independent Christian Churches: An Analysis of How the Stone-Campbell Restoration Movement Created a New Theological Tradition Based on Scottish Common Sense Philosophy" (University of Glasgow, 2005), p 36.

teaching and practice was the basis of the Disciples' religious practices. They hoped, optimistically, that ultimately there would be unity among all Christian believers. But differences between the doctrines of the Disciples of Christ and those of many Christian sects meant that this hope was unrealistic. For example, the doctrine of original sin was rejected by Alexander Campbell. He accepted the Lockean concept of the human mind at birth as a '*tabula rasa*' - a blank sheet. Original sin did not exist. Sin had its causes in humankind's behaviour and/or was the result of misguided human institutions and traditions.⁹ This doctrine was not acceptable to other protestant sects, some of whom believed in original sin and pre-destination. The nature of 'sin' was a topic which Muir would later address in his journals and books. Another facet of the Disciples' perspective of every individual's experiential basis of understanding of Biblical texts is evident in the adoption in their schools of the Baconian method of inductive thinking. The first college of the Disciples of Christ, founded in 1837, was named Bacon College. In their second - Bethany College, founded in 1840 - the courses of the college, which included mathematics, geology and natural sciences, were designed to promote the students' ability to perform empirical observations.¹⁰

That doctrine of the Disciples' theology which Muir's father's life reflected was the authority of the Bible. His interpretation of their teaching was that humankind must work hard to atone for its sinfulness in life, hence Daniel Muir's ruthless endeavours to clear land and make a living when he moved to join the Disciples' community in America. Striving to be successful economically was to be strongly and single-mindedly pursued. Yet within ten years of moving to Wisconsin Daniel Muir became an active, busy, itinerant preacher leaving his family to run the farm.

What is particularly relevant to the young John Muir's religious interpretation of nature, as it emerged in his later writing, is the view of Alexander Campbell, the

⁹ John Pierce, "'Christianity and Mountaineity': The Restoration Movement's Influence on John Muir," *Religion and the Arts* 17 (2013): p 117.

¹⁰ *Ibid.*, p 118.

Disciples' doctrinal leader, that Nature as well as the Bible is a source of revelation. He recognized the beauty and harmony of all creation. In *The Christian System*, Campbell described the universe as being composed of 'innumerable systems ...in perfect concert...a system of systems...running into each other and connecting themselves with everything...in the whole universe of God'. 'Nature and religion' he wrote 'are the offspring of the same supreme intelligence, bear the image of one father - twin sisters of the same divine heritage. The voice of Nature will never contradict the voice of revelation'.¹¹ Campbell found God in the beauty of the woods and mountains, writing that 'the sun, moon and stars are celestial officers ministering to' the planet.¹² Campbell admitted that it was possible to misinterpret Nature, whereas the Bible could not be misinterpreted by its readers if they exposed themselves to its 'self-evident' facts.¹³ In a letter written from Yosemite in 1866, Muir admitted, 'I take more intense delight from reading the power and goodness of God from "the things which are made" than from the Bible. The two books harmonise beautifully, and contain enough truth for the study of all eternity'.¹⁴

It is difficult to be clear how far the Disciples of Christ's interpretation of the revelation of Nature diverged from that of natural theologians such as John Ray (1627 - 1705) and William Paley (1743 -1805) who saw in Nature evidence of the omniscience and omnipotence of God, or whether Nature also communicated moral lessons, as Romantic writers such as William Wordsworth (1770 -1850) believed. Certainly, Daniel Muir did not adhere closely to the Disciples of Christ's doctrine that *both* Nature and the Bible were sources of divine revelation. For him the Bible was the sole source of moral and spiritual guidance. However, like the natural theologians, he sometimes acknowledged the activity of God in the beauty and complexity of the natural world. In Wisconsin on one occasion he called his children to see a wood duck that he had just shot, 'Come, bairns, and admire the work of God displayed in this bonnie bird. Naebody but God could paint feathers like these. Just look at the colours

¹¹ quoted in Worster, *A Passion for Nature. The Life of John Muir*, pp 38,39.

¹² Pierce, "'Christianity and Mountaineity': The Restoration Movement's Influence on John Muir," p 121.

¹³ quoted in *ibid.*, p 118.

¹⁴ Bade, "John Muir - His Life and Letters and Other Writings," p 83.

hoo they shine, and hoo fine they overlap and blend together like the colours o' the rainbow'.¹⁵ On another occasion he called the family outside to see an aurora crying, "Come! Come, mother! Come bairns! And see the glory of God. All the sky is clad in a robe of red light. Look straight up to the crown where the folds are gathered. Hush and wonder and adore, for surely this is the clothing of the Lord Himself, and perhaps he will even now appear looking down from his high heaven".¹⁶

Daniel Muir was strongly opposed to his son occupying his life in an exploration of the natural world. In 1874, on reading a published account of his son's storm night on Mount Shasta he wrote to him saying that it was not 'God's work' that his son was doing. 'All that you are attempting to show the *Holy Spirit* of God gives the believer to see at one glance of the eye'. He pleaded, 'O, my dear son come away from them to the Spirit of God and His holy word, and he will show our lovely Jesus unto you, who is His finished work presented to you' [Daniel Muir's italics].¹⁷ The letter was accompanied by a suitable religious tract. Muir senior appeared unaware that the Disciples of Christ were actively interested in the science of the natural world and were teaching their students to learn to observe it.¹⁸ Daniel Muir died in 1885. In his obituary, his son John described his father as 'a soldier, merchant, and farmer as well as an evangelist,..an enthusiastic believer and upholder of the gospel and it is this burning belief that formed the groundwork of his character and its apparent contradiction. He belonged to every protestant denomination in turn...not in search of a better creed' but 'ever in search of a warmer and more active zeal among its members....The Bible was his guide and companion and almost the only book he ever read'.¹⁹ In later life John Muir acknowledged and accepted his father's over-riding pre-occupation with Biblical truth and his unfulfilled ambition to find a protestant religious community that lived up to his ideals.

¹⁵ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 70.

¹⁶ Ibid., p 87.

¹⁷ Bade, "John Muir - His Life and Letters and Other Writings," p 26.

¹⁸ Pierce, ""Christianity and Mountaineity": The Restoration Movement's Influence on John Muir," p 118.

¹⁹ Bade, "John Muir - His Life and Letters and Other Writings," pp 21,22.

In his youthful recognition of the beauty and complexity of the natural world John Muir came closer than his father to the themes of the Disciples of Christ, including emphasizing in his later years, the beauty and harmony of nature. But first he had to develop his own interpretation of orthodox Christian doctrines and themes. In his youth he remained an active member of the Disciples of Christ, attending services, running Sunday School and reading the group's publications. These texts contained extensive discussions of the Disciples' theology to which John Muir therefore had ample access. The articles would have been broader in perspective than Muir's father's conservative interpretation of the Disciples' teachings. And Muir was not exposed solely to the views and literature of the Disciples. Interaction between the settlers on the frontier was common. The Disciples believed that their commitment to living life and practising their faith as the early Christians had done required them to evangelise other Christian sects and seek unity with them. They preached to and had discussions with a wide range of Christians including Methodists, Baptists, Presbyterians, Episcopalians, United Brethren, German Reformed and others. Daniel Muir is likely to have brought his oldest son along to such meetings which occurred regularly after Sunday church service.²⁰ John Muir may have reflected on the intricate and subtle differences which existed between the Christian sects in their interpretation of God and the way He related to humankind. Was God wrathful or good, loving and caring? Was humankind essentially sinful and ever in need of God's forgiveness? How could forgiveness of sins and salvation be achieved, if ever? And by all? Numerous other institutional behaviours such as baptism and its meaning would be discussed. That John was aware of these debates is revealed in a poem which he wrote in 1860, *The Old School House*. In it he refers humorously, perhaps scathingly, to 'Every ism and doxy' which 'hath been sounded on every key within thy patient walls', to 'souls being saved and pulled and twisted all out of shape, til they no longer fitted the frightened bodies that to each belonged'. John saw that certain religious dogmas could be perplexing and frightening to timid souls and recognized the power that preachers could have over their congregations.²¹

²⁰ Holmes, *The Young John Muir: An Environmental Biography*, p 59.

²¹ Bade, "John Muir - His Life and Letters and Other Writings," p 46.

There is evidence that John's adolescent view of God was of a gentle, caring Being. In a long and detailed letter to a young friend, Alfred Bradley Brown in 1856, he described an isolated, homeless traveller who is taken in and cared for by a 'lord of a princely mansion'. If Brown were that traveller, argued John, he would never forget that 'lord'. All the more reason therefore to remember 'Jesus, the son of God' who left his heavenly home to come to earth, who 'seeks you and suffers to save you'.²² Muir's analogy with the 'lord of the princely mansion' is of a caring God. He reminds Brown of the need to give his heart to 'Christ our Saviour', to love him and follow in his footsteps. Muir was eighteen when he wrote this letter, possibly as a response to a crisis of faith which his friend was experiencing. He was clearly a devout and thoughtful young Christian, anxious to advise and reassure a friend, portraying God's loving kindness rather than a vengeful God seeking retribution as Muir's own father saw God. It is also clear from this letter, as Limbaugh has pointed out, that Muir's religious beliefs were consistent with theological dogmas such as the Divinity of Jesus, Incarnation, Redemption and Resurrection, Salvation and Immortality.²³ On Immortality Muir wrote of meeting again in the 'home of our saviour and father to part again no more forever'.²⁴ In later life Muir appeared to lose or discount his acceptance of Jesus' part in Christian doctrine.

At university Muir continued in his practice of orthodox Christianity. 'In disposition Muir was gentle and loving - a high minded Christian gentleman', wrote a friend from that period, 'clean in thought and action. While he was not a very regular attendant at church, he read his Bible regularly and said his morning and evening prayers each day, and led the kind of life which all this implies'.²⁵ He was elected president of the Young Men's Christian Association. He was opposed to the Civil War, writing in 1862 to his sister and her husband of the 'unnatural' deaths of soldiers 'slaughtered upon a battlefield'.²⁶ According

²² John Muir, "Letter to A. Bradley Brown," <http://digitalcollections.pacific.edu/cdm/search/collection/muirletters/searchterm/A%20Bradley%20brown/field/contri/mode/all/conn/and/order/nosort/ad/asc/cosuppress/1>. Accessed 20 August 2017

²³ Ronald H Limbaugh, "The Nature of John Muir's Religion," *The Pacific Historian* 29, no. Summer/Fall (1985): p 18.

²⁴ Muir, "Letter to A. Bradley Brown".

²⁵ Bade, "John Muir - His Life and Letters and Other Writings," p 57.

²⁶ *Ibid.*, p 58.

to Bade, 'Fragments of an extensive correspondence show that he became a tender and solicitous adviser to numerous enlisted men who craved this service....The fearful toll of life exacted by unsanitary conditions in the military camps weighed heavily on his mind'. Bade suggests that this may have been a factor in his 'long-cherished purpose to enter the profession of medicine', a career which Muir did not eventually pursue.²⁷ From soon after his birth in 1838 to 1863, when he left university, there is strong and consistent evidence that the Biblical texts were an important part of Muir's daily life. A full engagement with the 'wild' natural world emerged later.

As mentioned at the start of this chapter Muir began his autobiography with the claim that 'all his life' he was 'fond of everything that was wild'. But Dunbar in Scotland, and the landscape around it was not 'wild' in the sense of humankind not having disturbed the natural landscape to any great extent. The agricultural industry flourished in the East Lothian countryside around Dunbar and the town itself was engaged in this industry. Muir's father was a prosperous grain merchant. Admittedly the waves which lashed the shore could at times be 'wild'. But for the child it was likely to have been his father's conception of the land beyond his home territory as being a place of moral and physical danger which led him to think of the countryside into which he escaped, as 'wild'. He described his father as 'always trying to make his garden as much like 'Eden' as possible'.²⁸ John escaped beyond this Eden on Saturdays, knowing full well that severe punishment would result if his father found out that he had 'strayed'. Outside, he was beyond the reach of his father and this must have engendered exhilaration and also an underlying sense of fear. With his friends, the young Muir climbed trees, listened to the songs of skylarks and of other birds and explored bird's nests, at times enacting childish cruelty on the wildlife. He could find solace in his walks with his maternal grandfather who introduced him to the natural history of trees, flowers and wildlife. The land around Dunbar was an Arcadian paradise beyond the home, not dissimilar to that described by Gilbert White (1720 - 1793) in his book *The Natural History of Selbourne* which was published in 1789. Nonetheless, as Muir looked back to his childhood in Dunbar,

²⁷ Ibid.

²⁸ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 30.

he wrote, 'Wildness was ever sounding in our ears and nature saw to it that besides school lessons and church lessons some of her own lessons should be learned, perhaps with a view to the time when we would be called to wander in wildness to our heart's content'. Muir was clearly referring to the freedom to roam which he would later experience in Wisconsin after his family left Scotland. Summing up his childhood in Dunbar he wrote of 'the blessed enchantment of those Saturday runaways....We were free - school cares and scoldings, heart thrashings and flesh thrashings alike, were forgotten in the fullness of Nature's glad wildness'.²⁹ As a child in Dunbar 'freedom' from his disciplinarian father and 'wildness' were closely associated in Muir's mind.

When, as a boy of eleven, John Muir arrived in Wisconsin where his father had chosen to settle, he and his brothers did find themselves free to explore true wilderness around them, curiously, without any restrictions imposed by a father, now fully occupied with clearing land to make it cultivable and with building a home for his family. The land in which he had settled had yet to be heavily disrupted by settlers. Bible readings and Sunday sermons - and thrashings - continued, but the children were now farmhands, working long hours to help their father with the intensive programme of manual labour which he had taken on. As long as they did their work on the farm their pre-occupied father did not concern himself too much with their wanderings in the countryside. From a distance of decades, and in language, reminiscent of that he used in his Yosemite journals, Muir wrote,

This sudden splash into pure wildness - baptism in Nature's warm heart - how utterly happy it made us! Nature streaming into us, wooingly teaching her wonderful lessons, so unlike the dismal grammar ashes and cinders so long thrashed into us. Here, without knowing it we were still at school; every wild lesson a love lesson, not whipped but charmed into us. Oh, that glorious Wisconsin wilderness! Everything new and pure in the very prime of spring when Nature's pulses were beating highest and mysteriously keeping time with our own! Young hearts, young leaves, flowers, animals, the winds and the streams and the sparkling lake, all widely, gladly rejoicing together.³⁰

In this quotation Muir wrote, retrospectively, of Nature as an active force, a theme which was basic to all his later writings.

²⁹ Ibid., p 41.

³⁰ Ibid., p 45.

As a result of his early schooling in Dunbar, Muir was well placed to learn about and become absorbed by the natural life he found in Wisconsin. He wrote that the grammar-school reader which he had used in Dunbar between the ages of eight and eleven years, 'called, I think Maccoulough's Course of Reading, contained a few natural-history sketches that excited me very much and left a deep impression'.³¹ This is very likely to have been *A series of lessons, in prose and verse, progressively arranged: intended as an introduction to the 'Course of elementary reading in science and literature'* by J M M'Culloch, which was published in 1839. This reader contained an interesting range of texts, extracts from many well established authors, theological (including texts on the history, content and interpretation of the Bible), exhortations to and guidance on being a good student, moral tales, extracts from natural theologians such as William Paley and Reverend Thomas Dick (1174 - 1857)³², accounts of cosmology, natural history and geography, as well as poetry. All these would have had an impact on an attentive young scholar. Muir wrote that his interest in birds was stimulated by reading extracts from the writings of two ornithologists, John James Audobon (1785 - 1851) whose *Birds of America* was published between 1827 and 1838, and Alexander Wilson (1766-1813), a Scottish American poet and ornithologist, while he was at school in Dunbar.³³ The wide variety of birds he saw around him in America - their nests, their songs, their behaviour - were of particular interest and had a chapter to themselves in his autobiography entitled 'A Paradise of Birds'. His rich and enthusiastic descriptions of all the natural life, the appearances and sounds of the wildlife and of the natural world reveal how much he was learning. In his autobiography Muir writes extensively, and from memory, on the wildlife he found there. At this age he had not yet begun to keep journals. Every kind of animal and plant life which Muir found in the 'wild' interested him. He also came to observe and relate closely to the domestic animals which were kept on the farm, describing what he called their 'humanity', their individual responses - facial expressions, the sounds they made, the way they moved - which reflected their moods. In this book Muir's first challenges to what he saw as humankind's vision of itself as superior to

³¹ Ibid., p 41.

³² When he was a teenager Daniel Muir attempted to forbid him to read Thomas Dick's book *The Christian Philosopher, or the Connexion of Science and Philosophy with Religion*, first published in 1823, because it was written by a 'philosopher', an objection which Muir overcame.

³³ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 41.

animals are evident. This was later to become Muir's strong conviction that all living things, humans, animal and plants were of equal importance and that humankind did not occupy a superior position with respect to these. His pet dog, Watch, was put down because he had been eating the neighbour's chickens. Muir commented on this episode, 'None of our fellow mortals [sic] is safe who eats what we eat, who in any way interferes with our pleasures, or who may be used for work or food or clothing or ornament, or mere cruel, sportish amusement', adding that 'it is a great comfort to learn that vast multitudes of creatures, great and small and infinite in number, lived and had a good time in God's love before man was created'.³⁴ He was distraught when one winter his father overworked one of his horses, Nob, to the extent that it became ill and died from pneumonia. Muir had read, memorized and loved the poems of the Scottish poet Robert Burns (1759 - 1796) from whom he obtained the phrase 'fellow-mortals'. Burns' concern for his fellow non-human creatures was the subject of several of his poems.³⁵ Muir would have absorbed these sentiments early in his life when first exposed to this very popular Scottish poet and he soon came to share them. He wrote, 'Of the many advantages of farm life for boys is the gaining of real knowledge of animals as fellow mortals, learning to respect them and love them'. This 'godlike sympathy' he found to be contrary to the 'mean, blinding doctrine...that animals have neither mind nor souls...no rights...and were made only for men to be petted, spoiled, slaughtered or enslaved'.³⁶ These thoughts are probably not those of a child, but the reflection of the grown man who later had taken a firm position on the subject of the equality of all living beings and was retrospectively identifying evidence for this position. But as he explored the natural world and his domestic environment in his childhood, events which made a strong impression were retained in Muir's memory selectively to be interpreted later. These were the seeds of a Muir's religious 'value' of nature which he would begin to articulate about a decade or so later.

In Wisconsin, Muir was discovering wider cultural and scientific interests. The fifteen-year-old Muir was a voracious reader and his tastes were broad,

³⁴ Ibid., p 51.

³⁵ Worster, *A Passion for Nature. The Life of John Muir*, pp 31, 32.

³⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 59.

encompassing science and literature. He managed to obtain and read books other than the Bible, despite his father's objections, using argument and deception, and sometimes with the help of his mother and siblings. More enlightened neighbours with well-stocked libraries were helpful in providing him with books which he read for several hours very early in the morning, before starting on his work on the farm. He writes, 'I remember as a great and sudden discovery that the poetry of the Bible, Shakespeare and Milton was a source of inspiring, exhilarating, uplifting pleasure: and I became anxious to know all the poets and saved up small sums to buy as many books as possible. Within three or four years I was the proud possessor of parts of Shakespeare's, Milton's, Cowper's, Henry Kirk White's, Campbell's and Akenside's work'.³⁷ With his close friends 'the twa Davies' he began to read, recite and write poetry. His cultural background was being widened. Even if these books were not directly about natural history, they will have given him new perspectives on the way the natural world was perceived in literature. Milton's *Paradise Lost*, with its theological account of the beauty and harmony of the Garden of Eden, became a particular favourite. Allusions to this book would emerge later in his journals. Muir also read about the travels in West Africa of the Scottish Explorer Mungo Park (1771 -1806), and the exploration of South America by Alexander von Humboldt (1769 -1859). These whetted his appetite to explore distant places.

John Muir's reading also included books about mathematics including algebra and geometry. He had persuaded his father that mathematics was important. How else, he argued, could his father's spectacles, required so that he could continue to read the Bible in later years, be designed except with the guidance of mathematics? As a result, this type of reading was permitted allowing him to develop theoretical skills.

The young John Muir had a particular aptitude for woodworking and an ability to use this creatively. His woodworking skill was well developed through building fences, sheds etc. on the farmstead. Wood was freely available from the trees which were being cut down when clearing the ground for cultivation. Using the

³⁷ Ibid., p 99.

simple tools available - files, hammers, a coarse saw - and later making his own tools, he began to 'invent' labour saving devices. He took a clock apart to investigate its mechanism and became adept at designing clocks. Thermometers, pyrometers, hygrometers followed, as did other more whimsical, but practical inventions. He devised a bed which was timed to rise vertically and tip him out at a pre-set time - before he was due to start work on the farm - thus allowing him the time to read. His mechanical inventions, one or two of which were erected outside the house with his father's permission, were the talk of the neighbourhood. These inventions were to lead indirectly to his entering the University of Wisconsin. One summer evening in 1860 when John was in his twenty third year, a neighbour, William Duncan, who had always taken an interest in John's welfare and evident inventive and mechanical skills, suggested that John display his inventions at the State Agricultural Fair in Madison, Wisconsin in September that year. This, he urged, might well lead to the offer of paid work. Hesitantly, Muir decided to do this and told his family of his decision, which could possibly lead to his leaving home.

Muir's father was not happy with his decision. In the opening words of the chapter in his autobiography entitled, 'The World and The University', Muir recollects how his father refused to give him any money were he to be in financial difficulties in the future, telling him, 'depend entirely on yourself'. The following paragraph reads, 'Strange to say father considered us poor worms of dust, conceived in sin, etc., and devoutly believed that quenching every spark of pride and self-confidence was a *sacred* duty, without realising that in doing so he might be at the same time *quenching everything else*' [my italics].³⁸ One cannot know to what Muir was referring by the term 'everything else'. Was it the quenching of his acceptance of his father's view of the duty of a Christian father, love of his father, or was it something deeper - the erosion of his own personality? Linnie Marsh-Wolfe writes that the final meal was eaten in silence and was followed by a sad goodbye to his mother and siblings, the former giving

³⁸ Ibid., p 104.

John a gold sovereign which had been his maternal grandfather's parting gift to John in 1849.³⁹

In fact, John Muir's 'pride and self-confidence' was considerably buoyed up by his experiences over the next few days. When he was set down by his brother at the railway station he was carrying a 'strange package' of 'two clocks and a small thermometer made of a piece of old washboard, all three tied together, with no covering or case of any sort, the whole thing looking like one very complicated machine'. This aroused a great deal of interest and comment, especially when he told onlookers that he had made the machines himself. One commented, 'Mark my words, you'll see all about it in the newspapers some of these days'. This did happen. Over the three days of the Fair he attracted the largest crowds to his stand - 'John Muir, Midland, Marquette Co'. After the first day, 24 September 1860, the 'Evening Patriot' reported that the inventions 'could only have been executed by genuine genius', and in 'The Wisconsin Journal', under a heading 'The Ingenious Whittler', it was reported that 'the clocks of our Marquette and Co friends were the objects most surrounded by crowds'.⁴⁰ When he read this Daniel Muir wrote his son a long homily on the sin of vanity, and John made haste to allay his father's fears saying he had 'refrained from reading the newspaper praise lest it go to his head'.⁴¹ John Muir was still accepting of his father's interpretation of sin.

One of the judges of the exhibits was Mrs Jeanne Carr, the wife of Professor Ezra Carr who would teach John Botany and Geology when he entered the University of Wisconsin in February 1861. Mrs Carr would become a close friend and mentor of Muir. At the fair, John was awarded an honorarium of fifteen dollars. He wrote, retrospectively, in his autobiography that 'from his arrival in Madison, he was attracted by the impressive campus of the university and the sight of the students of the University of Wisconsin at Madison going and coming with their books'. He wondered whether he might be able to earn enough money to pay for

³⁹ Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 58.

⁴⁰ Ibid., p 59.

⁴¹ Ibid., p 60.

his studies. If he could join the students it would be ‘the greatest joy of my life. I was desperately hungry and thirsty for knowledge and willing to endure anything to get it’.⁴² He failed to find suitable work after a period of about four months spent at the nearby town of Prairie du Chien, from where he had written to his sister Sarah in October 1860, ‘I am now adrift on this big sinning world and I don’t know how I feel jumping out of the woods’.⁴³ Muir was bewildered and confused about where his future lay after leaving the security of home and the natural world he had been living in.

On a visit to Madison in early 1862, a student he met when wandering on the Wisconsin’s Madison campus pointed out that very little money was required to be a student as accommodation and food could be cheap. Muir promptly sought an interview with the Acting Principal and was welcomed into ‘the glorious University’. He continued to work in the fields during long vacations and, in his second year, taught in an elementary school while working at his studies. He continued to invent machines. When it became clear to his family that he was having difficulty feeding himself, his father changed his mind and sent him two gifts amounting to ninety dollars. It appears that at this time, Daniel Muir was beginning to be a little more understanding, not least because John’s siblings, following his example, were beginning to seek some freedom from paternal restraints for themselves. By this time Daniel Muir had, for several years, been leaving the work on the farm to his wife and children while he himself had become a full-time preacher and religious leader. Being settled economically, albeit through the hard work of his family, it is possible that he may have had time to think more deeply about his religious beliefs and interpretations of these, especially as he met and talked with persons from other Christian sects whom he attempted to persuade to join him.

At the university of Wisconsin, where Muir enrolled in February 1861, he chose to study Chemistry and Geology with Mathematics and Physics, alongside Greek

⁴² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 107.

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<http://digitalcollections.pacific.edu/cdm/compoundobject/collection/muirletters/id/18096/rec/3> accessed 14 September 2017. Accessed 21 August 2016.

and Latin, the latter two subjects to please his mother who harboured ideas that he might enter the ministry. His teacher of Chemistry and Geology, Professor Ezra Carr in his Inaugural Address to the University of Wisconsin Board of Regents, had said, 'Earth Knowledge has more spiritual value for the youth of America than erudition concerning the amours of Jupiter and Venus...When I walk with students in green fields and forests, and show them Nature's basement rooms, how the foundations of the earth were laid, I see in them tokens of mental animation which are the strongest stimulants to my own exertions'. Carr's method of teaching was to walk to the hills and to the sea with his pupils, a practice which encouraged his pupils to develop the 'seeing eye' to observe the natural landscape.⁴⁴ He had learned this approach from Louis Agassiz (1807 - 1873), a biologist and geologist and the son of a Swiss pastor. Agassiz had moved to the United States to teach in 1846. In 1840, Agassiz had proposed a theory of glacial origin to account for the 'Drift phenomena', the observation of the extensive layer of soil, rock etc which was found in eastern Canada as far south as forty degrees latitude, but which had clearly originated much farther north in the continent. The widely quoted saying, 'A physical fact is as sacred as a moral principle' is attributed to Agassiz and appears in a paper published shortly before his death. It continues 'Our own nature demands from us this double allegiance'. According to his daughter 'every part of nature was sacred to him'.⁴⁵ Both Carr and Agassiz attributed a moral or spiritual value to the study of the natural world and thereby to Nature itself. Not long after he left the university, in a letter to Professor Carr's wife in 1865, Muir wrote, 'We remember in a peculiar way those who first gave us the story of *Redeeming Love* from the great book of revelation, and I shall never forget the Doctor, who first laid before me the great book of Nature....he has shown me where those mines of priceless knowledge lie and how to reach them' [my italics],⁴⁶ demonstrating, among other things, that Muir associated 'Love' closely with the experience of nature. Muir's classics teacher, Professor James Davie Butler, advised him to keep a journal regularly, a practice which he began when he set out on his walk from Wisconsin to Florida on 1 September 1867 and continued for virtually all his

⁴⁴ Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 76.

⁴⁵ Elizabeth Cary Agassiz, *Louis Agassiz His Life and Correspondence*, vol. 2 (Boston: Houghton, Mifflin & Co, 1885), p 781.

⁴⁶ Bade, "John Muir - His Life and Letters and Other Writings," p 81.

life. Editing of these journals was to become the basis for much of his published work.

John Muir traced the origin of his deep interest in the practical activity of botany - the detailed observation of plants - to his chance meeting with a fellow student by the name of 'Griswold', in June 1863. According to Muir, Griswold's self-declared 'greatest enjoyment' was 'imparting instruction'. In their lesson, Griswold taught Muir about the classification of species of plants and flowers, leading him through the process of recognizing and identifying the family to which a particular flower belonged, in this instance to the Pea Family. According to Muir, Griswold then commented, that the similarities of plants in a family was not arbitrary. Instead they showed that 'the Creator in making the pea vine and the locust tree had the same idea in mind...Man has nothing to do with the classification. Nature has attended to all that, giving essential *unity with boundless variety*, so that the botanist has only to examine plants to learn the *harmony of their relations*' [my italics].⁴⁷ The order implied in botanical classification would have appealed to Muir as would the role attributed to the 'Creator'. Stephen Holmes has looked at the original journal which recounts this episode and finds that it is Muir, rather than Griswold who noted the connection between Botany and Religion.⁴⁸ Muir comments that Griswold's lesson 'charmed him' and sent him 'flying to the woods and meadows in wild enthusiasm...I was always fond of flowers, attracted by their external beauty. Now my eyes were opened to their inner beauty, all alike revealing glorious traces of the thoughts of God, and leading on and on into the infinite cosmos'. He 'wandered away at every opportunity' on 'long excursions' gathering specimens, keeping them fresh in his room and studying them.⁴⁹ This single lesson led Muir to what became his life's work, a study of the natural world which involved close observation and reflection on what was before him. Shortly afterwards Muir equipped himself with the 1860 edition of Alfonso Woods' widely used *Class-Book of Botany*, a book which he would carry with him and refer to for many years. According to Steven Holmes, Woods 'begins his book' with a discussion of the religious

⁴⁷ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 110.

⁴⁸ Holmes, *The Young John Muir: An Environmental Biography*, p 108.

⁴⁹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 110.

meaning of Botany. Woods argues that ‘the natural sciences in general train the human mind for the recognition of Intelligence by intelligence, the discernment of the God-given design in nature making it all luminous with the Divine Presence’.⁵⁰

Muir, now independent of his family, was faced with deciding what his next steps would be towards life as an independent adult. He had learned a scientific method based on observation from men like Ezra Carr, who did not see a distinction between the natural world and religious thinking. Botany was not yet a scientific discipline in the sense that it was still practised by amateurs as well as professionals such as teachers. Muir had now learned to use the language of science. He had learned of ‘the attraction and repulsion of the atoms composing the globe, marching and retreating - the harmony, the oneness, of all life of the world etcetera - the methods by which Nature builds and pulls down in sculpting the globe; one form of beauty after another in endless variety’.⁵¹ Scientific ideas, and words like ‘force’, ‘power’, ‘energy’, ‘conductor’ entered his vocabulary, taking their place alongside the biblical language with which he had been brought up. He had gained some self-confidence at the University. He was recognized as eccentric and clever. His room, which contained several of his inventions as well as a chemistry laboratory, had become a museum to be shown by teachers and students to weekend visitors to the university. Muir’s close friendship with the Carr family allowed him to spend time in their home, including in their extensive library. He met their friends and talked with them. The Carrs were familiar with the writings of the foremost American Transcendentalists, Ralph Waldo Emerson (1803-1888) and Henry David Thoreau (1817-1862). The best-known books by these two Transcendentalists had been published relatively recently, Emerson’s *Nature* in 1836, and Thoreau’s *Walden* in 1854. These could well have been the subject of some of the discussions in the Carr household into which the young Muir might have entered.

⁵⁰ Holmes, *The Young John Muir: An Environmental Biography*, p 108.

⁵¹ *Ibid.*, p 106.

But in the United States Muir's university years were increasingly troubled ones. The Civil War had begun in 1861 and had intruded into his life. Late in 1861 he began to visit Camp Randall, close to the University at Madison, where young recruits lived. He became friends with the young soldiers and was more aware than they were of what faced them. As mentioned earlier, he counselled them. He wrote to a friend about what lay ahead of them, 'the gallant charge, the well-directed grape shot, the exploded mine rendering hundreds limb from limb in a moment'.⁵² By the spring of 1862, Camp Randall was filled with sick and dying soldiers and with prisoners. Muir was strongly opposed to war as his letters from that period illustrate.

John Muir left Wisconsin University in April 1863, probably in a state of confusion rather than confidence. Whether he left 'having got all I could get from the University' as recorded in an early version of his autobiography,⁵³ or reluctantly, is not clear. Many years later, in the published version of his autobiography, he wrote, 'I was far from satisfied with what I had learned, and should have stayed longer. Anyway I wandered away on a glorious botanical and geological excursion which has lasted nearly fifty years...urged on and on through endless, inspiring Godful beauty...I gained a last wistful, lingering view of the beautiful University grounds where I had spent many hungry and happy and hopeful days...with streaming eyes I bade my Alma mater farewell. But I was only leaving one University for another, the Wisconsin University for the University of the Wilderness.'⁵⁴

John Muir had grown up with the language of the Bible in his memory. This was a language he often used in his journals and books. But, as noted above, in his adolescence, and later, in a more formal manner at University, he had begun to learn the language of a naturalist - a scientist. He would begin to interpret what he observed on his 'glorious botanical and geological excursion' in the language and ideas of science. He would also continue to use the biblical ideas and

⁵² Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 70.

⁵³ Holmes, *The Young John Muir: An Environmental Biography*, p 103.

⁵⁴ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 111.

language which he knew well. These two languages would become closely intermeshed in his writing.

Chapter 2: The 1000 Mile Walk to the Gulf

Prologue

John Muir left on a solitary walk from Indianapolis to Florida on the first of September 1867. He gives an account of this in *My One Thousand Mile Walk to the Gulf*.¹ There is no published record of what he did between leaving university in April 1863 and starting out on his one thousand mile walk in 1867. But it is clear from his journals that during these years Muir went through an intense period of soul-searching about his future. His ecstatic statement in the penultimate paragraph of his book *The Story of My Boyhood and Youth* that he ‘wandered away on a glorious, botanical and geological excursion that has lasted fifty years’² conceals the many doubts he had between 1863 and 1867 about his future - how to live his life as an independent adult, how to choose between industry and science. Friends advised that he should choose his profession, ‘Doctor, Lawyer, Minister?’ Muir, in his indecision, replied, ‘No, not just yet’.³ Now on his own, he was also reflecting deeply on the religious traditions in which he had been brought up.

In the summer of 1863 Muir went on a three-week long trip down the Wisconsin River with three naturalist friends to ‘botanize’. That summer he returned home and worked on Fountain Lake Farm, his original homestead. He continued to agonize over whether his future was to be in industry or in botanical exploration. On 1 March 1864, he wrote to his friend Emily Pelton ‘I am about to take the cars [rail]..I really do not know where I shall halt. I feel like Milton’s Adam and Eve - “the world was all before them where to choose their place of rest”’.⁴ This was John Muir’s early use of the penultimate words of *Paradise Lost* ⁵ by the theologian-poet John Milton (1608-1674), one of only four books Muir would take

¹ Ibid., pp 119 - 83.

² Ibid., p 111.

³ Robert Engberg and Donal Wesling, *John Muir. To Yosemite and Beyond* (Salt Lake City: University of Utah Press, 1999), p 27.

⁴ Bade, “John Muir - His Life and Letters and Other Writings,” p 70.

⁵ John Milton, *Paradise Lost* (1667), Book XII ll 646,47.

with him on his walk from Indianapolis to Florida in 1867.⁶ Like Adam and Eve in the closing line of *Paradise Lost*, Muir would for many years make his ‘solitary way’ through the natural world.⁷ In a letter in February 1864, Muir confided in a friend who was a minister, writing, ‘I do not keep the shortness and uncertainties of life sufficiently in view, and it seems too that *I do not think of heaven sufficiently as a reality. I have faith but surely it is weak*’ [my italics].⁸ Here is evidence of John Muir’s growing questioning of his ‘faith’, after he left the safe havens of home and university.

Muir’s retrospective autobiographical notebook describes what he did next. ‘Accordingly, leaving books and life plans and all the beaten Charts of the religious believer, and fortunes from here to heaven, I went strolling off into the woods botanizing....How beautiful and fresh and *Godful* the world began to appear’ [my italics].⁹ The ‘beaten Charts of the religious believer, and fortunes from here to heaven’ indicate that Muir was reflecting on his religious beliefs. The close connection between the practice of science (Botany) and God’s presence in the natural world, a lesson he had learned from his childhood religion and also from his university teachers, was consistent with his thinking.

John Muir’s discovery of the flower of the plant *Calypso Borealis* soon after July 1864 is the occasion of his first clear account of his personal encounter with the spiritual in Nature. He described the event in a letter to Mrs Jeanne Carr at the time. He was on one of his ‘lonely’ excursions ‘botanising in glorious freedom’ around the Great Lakes of Canada. He knew of the plant and wanted to find it. He described the occasion when he found it. ‘When the sun was getting low and everything seemed most bewildering and discouraging, I found beautiful Calypso....The flower was white and made the impression of the utmost simple purity like a snowflower.....It seemed the most spiritual of all the flower people I had ever met. I sat down beside it and fairly cried for joy....hunger and weariness vanished... and plashed on....strong and exhilarated...as if never more

⁶ Worster, *A Passion for Nature. The Life of John Muir*, p 120.

⁷ Milton, *Paradise Lost*, Book XII l 649.

⁸ Engberg and Wesling, *John Muir. To Yosemite and Beyond*, p 29.

⁹ *Ibid.*, p 27.

to feel any mortal care'.¹⁰ The account in his letter to Mrs Carr was taken by Professor JD Butler from her home and included in an article Butler published in the Boston Recorder on Dec 21, 1866. Butler does not name Muir as the person who had the experience but describes him as 'A young Wisconsin gatherer of simples (sic) [who] seems not a whit behind Thoreau as a scrutineer and votary of nature'. Butler's article continues to quote from Muir's letter. 'I cannot understand the nature of the curse "Thorns and thistles shall it bring forth to thee". Is our world indeed worse for this "thistly curse"? Are not all plants beautiful? Or in some way useful?'¹¹ Interestingly, Stephen Holmes points out that Muir's retrospective account bears some similarity to an experience described by the Scottish Explorer Mungo Park (1771 -1806) in his travels when he was lost and alone in a remote forest region of Africa, and after being robbed, came across a small moss in flower. 'Attracted by its "extraordinary beauty" Park found religious consolation in the scene'.¹² Muir had read of Mungo Park's travels in his youth. John Hedley Brooke writes that 'in the late eighteenth and early nineteenth centuries it was not unusual to hear naturalists speaking of their scientific awakening in terms that might have been used of a religious conversion'.¹³

Muir left the family farm where he had been working until March 1864 and walked through the Northern United States to Canada, partly to avoid the call up to military service in the Civil War. Between late 1864 and 1867 he worked in woodworking mills. He spent all his spare hours wandering in the woods, examining and collecting species of plants and flowers. With his brother Dan, he signed on at Trout's Mills, Meaford, Canada, in late 1864 and made a contract with the owner William Trout to produce 1000 dozen rake handles and 30,000 broom handles. He continued to teach Sunday School, took children on botanical expeditions and read the Disciples' periodicals, the *Messenger* and others which his mother sent him. The Trout family belonged to the Disciples of Christ and Muir was able to engage the thirty-year old bachelor, William Trout in discussion

¹⁰ Bade, "John Muir - His Life and Letters and Other Writings," p 71.

¹¹ Gisel, *Kindred and Related Spirits. The Letters of John Muir and Jeanne C Carr*, p 40.

¹² Holmes, *The Young John Muir: An Environmental Biography*, p 121.

¹³ John Hedley Brooke, *Science and Religion. Some Historical Perspectives*, ed. Goerge Basalla, Cambridge History of Science (Cambridge: Cambridge University Press, 1991), p 31.

and debate about the beliefs of the group. Linnie Marsh Wolfe quotes from Muir's late autobiographical notebook, 'I never tried to abandon creeds or codes of civilisation; they went away of their own accord, melting and evaporating noiselessly without any effort and *without leaving consciousness of loss*' [my italics].¹⁴

Muir's call up never came. When Trout Mills burned down in February 1866, William Trout suggested that Muir continue with the firm as a partner and contribute to its rebuilding. Muir declined saying, 'No, I love nature too well to spend my life in a work that involves the destruction of God's forests!' ¹⁵ Yet he moved to Indianapolis and took similar work with Osgood, Smith and Company, manufacturers of carriage parts, where he was equally successful and not only in developing labour saving devices. He wrote a well-received plan to improve the efficiency of the work of this firm, both by eliminating waste and by re-organisation of routines so that the men worked co-operatively - as a unit. John Muir did not accept competitiveness in industry, describing Adam Smith's philosophy that competition led to material progress and made people happy as the 'gobble, gobble school of economics'.¹⁶ At work Muir advocated harmony and collaboration just as he recognized the harmony and unity present in nature. Later Darwin's advocacy of competition between species would be anathema to him. Muir refused to patent any of his inventions because, 'All improvements and inventions should be the property of the human race, and no inventor had the right to profit by an invention for which he deserved no credit, as the idea really was inspired by the Almighty'.¹⁷

It was an accident at work that finally led to Muir making a decision which would result in his life's work as a scientist and advocate for preservation of the natural environment. One evening in March 1867, he was using a file in an attempt to shorten a machine belt which had become loose. The file slipped and flew up into the cornea of his right eye. Within a short time, the aqueous

¹⁴ quoted in Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 95.

¹⁵ quoted in *ibid.*, p 97.

¹⁶ quoted in *ibid.*, p 102.

¹⁷ Holmes, *The Young John Muir: An Environmental Biography*, p 135.

humour began to drip out. The sight in his right eye faded then went completely. Immediately after the accident Muir is reported as saying, 'My right eye is gone, closed forever on all God's beauty'.¹⁸ He was taken to bed but shortly afterwards the sight went in his left eye as a physiological 'sympathetic' response to the blinding of his right eye. He was seen by an ophthalmologist who assured him that the sight in his right eye was not permanently damaged. He spent four weeks in a darkened room, tended to by his many sympathetic friends and entertaining the children of the household.

Muir wrote in his later autobiographical narrative, 'As soon as I got out into Heaven's light I started on another long excursion making haste with all my heart to store my mind with the Lord's beauty and thus be ready for any fate, light or dark. It was from this time that my long continuous wanderings may be said to have fairly commenced. I bade adieu to all my mechanical inventions, determined to devote the rest of my life to the inventions of God.'¹⁹ Muir's loss of sight had forced him to a decision. He would undertake a solitary walk during which he would practice his skills as a naturalist. The blind Milton's poem *Paradise Lost* provided Muir, who had been temporarily blind, with a way of 'seeing' nature and a source of theological thought. Muir would have known well also the story of St Paul's loss of sight which led to his dramatic conversion to Christianity and the opening words of St John's Gospel.²⁰ Nature's 'Light', evocative of the divine light, was to become a recurring theme in Muir's writing.

Yet as late as two days before he set out on his walk, Muir wrote to Jeanne Carr, 'I wish I knew where I was going. Doomed to be "carried of the spirit into the wilderness"'.²¹ He described his plan in his autobiography as 'simply to push on in a general southward direction by the wildest, leafiest, and least trodden way I could find, promising the greatest extent of virgin forest'.²² His route was to be through the southern states of Kentucky, Tennessee, North Carolina and

¹⁸ Bade, "John Muir - His Life and Letters and Other Writings," p 86.

¹⁹ Ibid., pp 86,87.

²⁰ *The Holy Bible Authorized King James Version* John 1:8,9.

²¹ Gisel, *Kindred and Related Spirits. The Letters of John Muir and Jeanne C Carr*, p 57.

²² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 119.

Georgia. In a letter to Mrs Carr two years earlier he had written, 'How intensely I desire to be a Humboldt'.²³ This desire lay behind his plan to walk to Florida and then to make his way by boat to South America in the footsteps of Humboldt (see below).

The One Thousand Mile Walk: Botanic Observation and Religious

Interpretation of Nature

John Muir envisaged his one thousand mile walk to Florida as a naturalist's walk - a scientific endeavour. He carried little baggage, but this included a flower press and, along with *Paradise Lost*, the New Testament and Alfonso Woods' *A Class Book of Botany, Being Outlines of the Structure, Physiology and Classification of Plants; with a Flora of the United States and Canada*, probably the 1862 edition which he had bought while a student at the University of Wisconsin at Madison.²⁴ He 'strode away among the old Kentucky oaks, rejoicing in splendid visions of pines and palms and tropic flowers in glorious array'.²⁵ Muir was making his long journey alone and religious ideas would help to keep him connected with his family's faith and would colour his view of the natural world as he walked. He also carried a copy of the poems of his favourite Scottish poet Robert Burns (1759 -1796), a critic of religious fanaticism and a liberal thinker.

As a teenager, Muir had been greatly inspired by the writings of the German explorer Alexander van Humboldt (1769 -1857), in particular his accounts of his travels in South America between 1799 and 1804. Muir's reflections on his long walk would echo Humboldt's philosophy of nature and of scientific exploration. Humboldt's thinking reflected that of his close friend Johann Wolfgang von Goethe (1749 -1832), through whom he had been exposed to the philosophy of Kant and to German Romanticism. He and his brother had spent many hours in discussion with Goethe in 1794 and subsequent years.²⁶ Goethe's idea of how the scientific study of nature should be undertaken, that is, involving both

²³ Gisel, *Kindred and Related Spirits. The Letters of John Muir and Jeanne C Carr*, p 30.

²⁴ Worster, *A Passion for Nature. The Life of John Muir*, pp 120, 21.

²⁵ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 119.

²⁶ Andrea Wulf, *The Invention of Nature. The Adventures of Alexander Von Humboldt the Lost Hero of Science* (Great Britain: John Murray, 2015), p 29 - 38.

empirical investigation and the imagination, reflected the romantic viewpoint which Humboldt shared and Muir later adopted. Humboldt wrote to Goethe that 'nature must always be experienced through feeling' as Muir too believed (see later).²⁷ Humboldt was aware of a 'unity' in nature, commenting that those who want to describe the world by simply classifying plants, animals and rocks 'will never get close to it'.²⁸ In his *Essay on the Geography of Plants* published in 1807, Humboldt produced a diagram, *Naturgemälde*²⁹ which illustrated the relation of various species of trees to altitude and climate, a concept which Muir would later use in his writing. Muir's 'romanticism' - the recognition of the intimate, spiritual relationship of humankind and nature - was likely to have been partly influenced by his familiarity with Humboldt's writing at an early stage in his life. Yet, compared with Humboldt's travel baggage of forty-two instruments, from telescopes to microscopes³⁰, Muir carried only a plant press. Muir's objective in his walk was different to that of Humboldt, which was, 'to collect plants and seeds, rocks and animals', but he concurred with Humboldt in his investigation of 'how all the forces of nature are interlaced and inter woven'.

31

Muir did spend a lot of time during his walk on botany, looking closely at the plant life, and how this varied with elevation, climate and soil, characterising and identifying the many varieties of trees and flowers along the route. Detailed accounts of plants and each species' Latin name abound in his writing. In the forests of Kentucky, the 'greenest and leafiest state',³² he 'Lingered here a long happy while, pressing specimens and printing this beauty into memory'.³³ In the caves of Kentucky, and elsewhere, he noted that particular species of trees grew in the specific climatic atmosphere of each cave, as Humboldt's *Naturgemälde* predicted.³⁴ In Tennessee Muir observed the many species of trees, ferns and heathers. When challenged by a blacksmith at whose house he spent a night, as to why he was 'looking at plants' instead of doing 'real work' in these 'hard

²⁷ Ibid., p 36.

²⁸ Ibid.

²⁹ Ibid., p 89.

³⁰ Ibid., p 45.

³¹ Ibid.

³² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 123.

³³ Ibid., p 121.

³⁴ Ibid., pp 120 - 21.

times', he responded to this 'believer in the Bible' that Solomon, 'the very wisest man the world ever saw...considered it worthwhile to study plants'. In the copy of Woods' *Botany* which Muir was carrying there was a quote from 1 Kings 4:33 on the title page, 'He spake of trees, from the cedar of Lebanon even unto the hyssop that springeth out of the wall'. According to Muir, the blacksmith was 'satisfied'.³⁵ In Georgia, Muir was impressed by the ferns, the magnificent grasses and the long-leafed pine - *Pinus palustris*. As the land became flatter and swampy, Muir followed the Savannah river, wandering among the 'grasses and rich dense vine clad forests' and found 'impenetrable Cypress swamp[s]'.³⁶ In Cuba he wrote about the palms, bamboos and 'gorgeous-flowered plants'.³⁷ He described his walk as 'a floral pilgrimage' noting that he had seen 'much that is not only new, but altogether unallied, unacquainted with the plants of my former life'.³⁸ From the wealth of botanical information in *A Thousand Mile Walk to the Gulf* it is evident that Muir fulfilled his own scientific aspirations for the walk.

But there was a strong religious dimension to John Muir's nature writing. He drew on the two sources of religious thought and expression - the New Testament and John Milton's *Paradise Lost*, which he carried, and on the words of the Old and New Testament imprinted in his memory from early childhood. As noted earlier, his upbringing in the Disciples of Christ recognized both the 'The Book of Nature' and the Bible as sources of revelation. Muir had been 'inspired and uplifted' by the poetry of Milton in his youth³⁹ and had probably memorised some of the stanzas of *Paradise Lost*. Muir 'saw' nature assisted by the imagery of the blind Milton. In his comprehensive article, *Milton in Yosemite*, Mark Stoll argues that 'Reformed Protestants (Congregationalists, Presbyterians, and Unitarians) with Calvinist roots in Puritan New England, Scotland and England,' who would have known *Paradise Lost* very well, would have formed the core of John Muir's readers. They would have recognized the association of Yosemite

³⁵ Ibid., p 126 and footnote.

³⁶ Ibid., p 136.

³⁷ Ibid., p 169.

³⁸ Ibid., p 144.

³⁹ Ibid., p 99.

with 'Eden' and recognized the allusions to *Paradise Lost*.⁴⁰ *Paradise Lost* contains a vivid account of the beauty of 'Eden',⁴¹ and of the events which led to Adam and Eve being ejected from the garden. Milton wrote of the Garden of Eden as a place of purity and harmony, reflecting the condition of Adam and Eve before the Fall. The image of Eden which Muir adopted was one which connected the beauty and harmony of the natural world with the Divine. Stoll comments that Muir, 'internalised his [Milton's] words and meanings and incorporated them organically into his books and articles'. For Stoll, this is particularly evident in *A Thousand Mile Walk to the Gulf*.⁴² Steven J Holmes also writes about Muir's use of Miltonic images.⁴³ These two authors provide numerous examples, but a few will suffice for the purpose of this thesis. 'Eden' figures strongly in *A Thousand Mile Walk to the Gulf*. Muir wrote that 'the grandest of Kentucky's plants are her noble oaks... Here is Eden, the Paradise of the Oaks'.⁴⁴ In describing the hanging vines on the banks of the Hiwassee river in North Carolina, he observed, 'Such a river is the Hiawasee, with its surface broken to a thousand sparkling gems, and its forest walls vine-draped and flowery as Eden'.⁴⁵ He described the Chattahoochee River as 'richly embanked with massive, bossy, dark green water oaks, and wreathed with a dense growth of muscadine grapevines, whose ornate foliage....was enriched with other interweaving species of vines and brightly coloured flowers'.⁴⁶ These descriptions are not dissimilar to lines describing Eden in *Paradise Lost*.

.....umbraceous Grotts and caves
Of cool recess, o'er which the mantling Vine
Lays forth her purple Grape, and gently creeps
Luxuriant....

John Milton *Paradise Lost*⁴⁷

Muir referred several times to the beauty of nature to which humankind's created 'garden art' compared poorly. Of the hotel gardens close to Mammoth Cave in Kentucky, he wrote, 'I never saw Nature's grandeur in so abrupt contrast

⁴⁰ Mark Stoll, "Milton in Yosemite: Paradise Lost and the National Parks Idea," *Environmental History* 13 (2008): pp 237 - 74.

⁴¹ Milton, *Paradise Lost*, Book IV lines 223 -68, pp 79, 80.

⁴² Stoll, "Milton in Yosemite: Paradise Lost and the National Parks Idea," p 261.

⁴³ Holmes, *The Young John Muir: An Environmental Biography*, pp 168, 69, 77, 79.

⁴⁴ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 123.

⁴⁵ *Ibid.*, p 131.

⁴⁶ *Ibid.*, p 133.

⁴⁷ Milton, *Paradise Lost*, Book IV lines 257-60, p 80.

with paltry artificial gardens. The fashionable hotel grounds are in exact parlour taste, with many a beautiful plant cultivated to deformity and arranged in strict geometric beds, the whole pretty affair a laborious failure side by side with *Divine beauty*’ [my italics].⁴⁸ Observing the flowering plants along a river bank in Cuba he wrote, ‘Compared with what I have seen before in artificial flower gardens, this is past comparison the grandest’.⁴⁹ Milton’s description of Eden includes the lines,

Flow’rs worth of Paradise, which not nice Art
In Beds and curious Knots, but nature boon
Pour’d forth profuse on Hill and Dale and Plain.’⁵⁰

Muir observed pines ‘waving and bowing in sign of worship’ as in *Paradise Lost* where, in a paraphrase of Psalm 148, Milton includes the lines,

....and wave your tops, ye pines
With every plant, in sign of worship wave.’⁵¹

In Florida, Muir was particularly impressed by a species of palm, the Palmetto. He wrote, ‘I caught sight of the first palmetto in a grassy place standing almost alone...They tell us that plants are perishable, soulless creatures, that only man is immortal, etc.; but this I think, is something that we know nearly nothing about. Anyhow this palm was indescribably impressive and told me grander things than I ever got from human priest’.⁵² Holmes suggests that Muir was feeling particularly lonely and intimidated by the flowerless swamps of inland Florida and may have drawn comfort from the independence exhibited by the lone palm, a consolation he would not have got from a ‘human priest’. Holmes comments that ‘It may not be insignificant that Milton named palms as characteristic of Eden, along with cedar, fir and pine’.⁵³ In the above quotation Muir also questions whether plants are ‘perishable, soulless creatures’.⁵⁴ Earlier he had written, ‘How little we know as yet of the life of plants - their hopes and fears, pains and enjoyment’.⁵⁵

⁴⁸ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 122.

⁴⁹ *Ibid.*, p 169.

⁵⁰ Milton, *Paradise Lost*, p 80. Book IV: 241-243

⁵¹ *Ibid.*, p 106 Book V: 193-194

⁵² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 146.

⁵³ Holmes, *The Young John Muir: An Environmental Biography*, p 174.

⁵⁴ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 146.

⁵⁵ *Ibid.*

The vision of 'Eden' which Muir found in the nature he observed, or imaginatively created, was in contrast to the 'Eden' which settlers in New England in the seventeenth century had envisaged. William Bradford had described what they found when they arrived in America in 1650, the 'hideous and desolate wilderness, full of wild beasts and men'.⁵⁶ The settlers believed they were God's chosen people and would, as co-creators with God, ⁵⁷ build a 'city on a hill' - an Eden - in the promised land to which God was leading them.⁵⁸ John Muir, found an Eden, present in existing 'pristine' nature, similar to the Eden Milton had described and in contrast to industrialised landscapes.

Muir's description of the natural world and the imagery he used was also derived from his own developing interpretation of the Creator's (God's) intimate relationship with the natural world, or 'Nature'. Two days after he began his ascent of the Cumberland Mountains in Tennessee he wrote,

'There is nothing more eloquent in Nature than a mountain stream and this is the first I ever saw. Its banks are luxuriantly peopled with rare and lovely flowers and overarching trees, making one of Nature's coolest and most hospitable places. Every tree, every flower, every ripple and eddy of this lovely stream seemed solemnly to feel the presence of the great *Creator* '[my italics].⁵⁹

Here Muir's description of the banks being 'peopled' with flowers and trees attributed a sensibility to plant life. In *A Thousand Mile Walk to the Gulf* Muir wrote, for the first time, of an active 'Nature' - using capitalisation to indicate this power. The stream seemed to 'feel' the presence of the great Creator, who for Muir, was continuously present in the natural world. From this time, in Muir's writing, it could appear that for him God and 'Nature' were identical, continuously creating the landscape, as he would later describe.

⁵⁶ quoted in Hugh Brogan, *The Penguin History of the USA* (England: Penguin Group, 1999), p 38.

⁵⁷ See *The Holy Bible Authorized King James Version* 1 Corinthians 3:9.

⁵⁸ See Roderick Frazier Nash, *Wilderness and the American Mind*, Fifth ed. (New Haven and London: Yale University Press, 2014), pp 24, 31, 40.

⁵⁹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 128.

Muir exemplified here Samuel Taylor Coleridge's (1772 -1834) comment that 'nature itself is to a religious observer the art of God'.⁶⁰ Muir wrote that the 'forest clad hills' were '*united* by curves and slopes' and commented on the *simplicity* and mysterious *complexity* of detail. Here are echoes of Coleridge's 'unity in multeity.....the principle of beauty.'⁶¹ In the 'aliveness' conveyed by the words 'wooded, waving swelling mountain grandeur' in which the hills are 'enjoying' and 'eagerly absorbing' rich sunshine this passage reveals a meaning of *natura naturans*,⁶² which Coleridge wrote 'presupposes a bond between nature in the higher sense and the souls of man'.⁶³ Muir found harmony too in the natural world in Bonaventure cemetery, near Savannah, Georgia.

Wordsworth's lines, written while observing the scene on the banks of the Wye 'a few miles above Tintern Abbey' also spoke of experiencing the 'harmony' of a natural scene,

..we are laid asleep
In body, and become a living soul:
While with an eye made quiet by the power
Of harmony, and the deep power of joy,
We see into the life of things.⁶⁴

Muir would continue to find 'unity in multeity' and 'harmony' in the natural world.

Muir began to link science and religion in his writing, using the concept of 'reading nature'. This phrase had and has many interpretations. It could mean reading the 'signs' present in the natural world - the position of the sun, moon or stars, - to find one's way or to predict the weather. In contemporary scientific thought, the words 'reading nature' refer to the methodologies which can be used to provide evidence for processes which occur in science.⁶⁵ In earlier times, 'Reading nature' would have meant the discerning of the

⁶⁰ Samuel Taylor Coleridge, "On Poesy and Art," <http://www.bartleby.com/27/17.html>. See para 5, lines 7,8. Accessed 19 December 2016.

⁶¹ Ibid. See para 8 lines 2,3

⁶² *Natura naturans* refers to an active nature - nature 'naturing', doing what nature does, contrasted with *natura naturata* meaning nature as already created.

⁶³ Coleridge, "On Poesy and Art". Para 9 lines 4,5

⁶⁴ from Tintern Abbey in Nicholas Halmi, ed. *Wordsworth's Poetry and Prose* (New York and London: W W Norton & Company, 2014), ll 47-50, p 67.

⁶⁵ See e.g. Peter Kosso, *Reading the Book of Nature* (Cambridge UK: Cambridge University Press, 1992).

revelation of God in nature, as the Disciples of Christ and others believed. Muir's description of his view from the top of the Cumberland Mountains, given on the previous page, continues, 'Who shall read the teachings of these sylvan pages, that glad brotherhood of rills that sing in the valleys, and all the happy creatures that dwell in them under the tender keeping of a Father's care?' ⁶⁶ Later, in Cuba, Muir described the difficulty in reading a written page which has been 'written over and over with characters of every size and style', comparing this with trying to understand the pages of nature. 'Our limited powers are similarly perplexed and overtaxed in reading the inexhaustible pages of nature, for they are written over and over uncountable times, written in characters of every size and colour, sentences composed of sentences, every part of a character a sentence'. Yet, 'There is not a fragment in nature, for every relative fragment of one thing is a full harmonious unit in itself. All together form one great palimpsest of the world.'⁶⁷ Here Muir was very probably making a reference to the interpretation of the history of the natural world through 'reading' or interpreting all the signs, including those which were 'overwritten', as the geologist Charles Lyell (1797 - 1875) and others had done.⁶⁸ Muir too would 'read nature' to demonstrate the origin of Yosemite Valley (see Chapter 3).

The One Thousand Mile Walk: Muir challenges Biblical Doctrines

John Muir reached Cedar Keys in Florida on 23 October 1867, fifty-five days after he set out. On 24 October, he collapsed with malaria and spent many days in a coma. It was not until January 1868 that he was able to think about continuing his journey, to South America in Humboldt's footsteps he hoped. *A Thousand Mile Walk to the Gulf* includes detailed and intense discussion of two important theological issues - death, and whether the world was created by God especially for humankind. Holmes, who has examined Muir's journals which cover his walk, finds evidence in the amendments, dating and handwriting to suggest that most of the account of Muir's experiences after he had arrived in Savannah, from the beginning of his sojourn in the nearby Bonaventure cemetery, was written and backdated after Muir recovered from malaria in

⁶⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 130.

⁶⁷ *Ibid.*, p 168.

⁶⁸ Brooke, *Science and Religion. Some Historical Perspectives*, pp 336 - 45.

January 1868.⁶⁹ The two themes on which Muir reflected seemed to have arisen because Muir had been close to death himself as a result of the bite of a small and insignificant insect. A long period of convalescence allowed him time to reflect deeply on these two themes. This was the start of Muir's written account of his particular perspective on religion as his solitary wandering continued over the next few years.

Muir was virtually penniless when the money he had arranged for his brother to send to him did not arrive by 9 October 1867. He was not at his strongest, having eaten little. He wandered the streets of Savannah and decided to follow the signs to Bonaventure Cemetery. Surprised by what he saw, he wrote 'There is little to be seen on the way in land, water or sky, that would lead one to hope for the glories of Bonaventure'.⁷⁰ In the grounds of a ruined mansion house with its avenue of 'noble' oak trees, a small area was occupied by a cemetery, no longer in use. Muir was struck by the fact that the greater part of the grounds was 'undisturbed', although some parts were 'disordered by art'. In these areas, he wrote, 'Nature is ever at work to reclaim, and to make them look as if the foot of man has never known them'.⁷¹ Despite humankind's intervention, Nature was continuously creating beauty in the cemetery, a beauty greater than the transient beauty of the artificial gardens which had been planted there. The 'artificial' gardens would have been inspired by the eighteenth century ideal of the perfectly ordered gardens of England.⁷² But to Muir, Nature was alive and at work in this 'place of the dead' where bodies were returning to dust. 'The whole place' seemed 'like a centre of life. The dead do not reign there alone.' He continued, 'I gazed awe-stricken as one arrived from another world. Bonaventure is called a graveyard, a town of the dead, but the few graves are powerless in such a depth of life. The rippling of the living waters, the songs of the birds, the joyous confidence of flowers, the calm, undisturbed grandeur of

⁶⁹ Holmes, *The Young John Muir: An Environmental Biography*, pp 261 -63.

⁷⁰ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 139.

⁷¹ Ibid.

⁷² Suzy Halmi, "Landscape," in *A Handbook to English Romanticism*, ed. Jean Raimond and J. R. Watson (Great Britain: St. Martin's Press, 1992), p 269.

the oaks, mark this place of graves as one of the Lord's most favoured abodes of *life and light*' [my italics].⁷³

Muir had 'arrived from another world' to make the discovery of a 'centre of life'. In that 'other world' he had already encountered death in the many lost lives of young soldiers. Now alone, he reflected on life and death in a cemetery no longer in use, in which he had discovered a *living* Nature which appeared to him to overwhelm 'death' as evidenced in the remains of the humans in coffins, decaying in the ground. His father had emphasized that 'sin' on this earth would, after death, result in burning in the fires of hell for eternity. Muir knew the words of Genesis, 'In the sweat of thy face shalt thou eat bread, till thou return unto the ground; for out of it wast thou taken: for dust thou *art*, and unto dust shalt thou return'.⁷⁴ On the other hand, in John 11: 25 -26, as Muir knew, Jesus said to Martha, "I am the resurrection and the life: he that believeth though he die, though he were dead, yet shall he live".⁷⁵ Returning to dust yet continuing to live as a result of the Resurrection of Jesus did suggest a continuity between life and death. But for Muir that continuity was on earth. A further problem for Muir was the Biblical concept of humankind's 'sinfulness' which needed to be atoned for. Muir's copy of *Paradise Lost*, gave a very clear and fulsome account of humankind's sinfulness and need for redemption e.g.

they themselves ordained their Fall
The first sort by their own suggestion fell,
Self-tempted, self-depraved:⁷⁶

and

now without redemption all mankind
Must have been lost, adjudged to death and Hell
By doom severe, had not the Son of God,
In whom the fulness dwells of love divine,
His dearest meditation thus renewed.⁷⁷

⁷³ Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 139, 40.

⁷⁴ *The Holy Bible Authorized King James Version* Genesis 3:19.

⁷⁵ *Ibid.*, John 11: 25,26.

⁷⁶ Milton, *Paradise Lost*, III pp 128 - 30.

⁷⁷ *Ibid.*, III ll 222 - 26.

The archangel Michael showed Adam the awesome and terrible 'lazar-house' of Hell,

A lazar-house it seemed wherein were laid
Numbers of all diseased....
.....Dire was the tossing, deep the groans..
...and over them triumphant Death...⁷⁸

The evidence before Muir's eyes belied this terrible story. He wrote, 'On no subject are our ideas more warped and pitiable than on death. Instead of the sympathy, *the friendly union of life and death so apparent in Nature*, we are taught that death is an accident, a deplorable punishment *for the oldest sin*, the arch-enemy of life etc. Town children are especially steeped in this death orthodoxy, for the natural beauties of death are seldom taught in towns' [my italics].⁷⁹ Muir's online journal, but not the published book, includes an indication of the source of these teachings of 'death orthodoxy.. in these primary, never-to-be questioned dogmas, these *time-honoured bones of doctrine*, (in which) our experiences are founded, tissue after tissue in hideous development, until they form the grimmest body to be found in the whole catalogue of *civilised Christian manufactures*' [my italics].⁸⁰ In this journal, he also gave examples of the unpleasant images of death to which children are exposed including 'the proper slaughter of flies for the purpose of domestic health and comfort, and the death groans of pigs and cattle amid the filth and blood of the slaughter house'.⁸¹ It appears that Muir wanted to protect readers of his book, especially his Christian readers, from his extremely negative view of Christian doctrine on death, and also from unpleasant images. In the published account, he wrote less challengingly of the practices and symbolism associated with death - tears, gloom, black clothing and 'black boxes' or coffins.⁸² Henry Alexander Bowler's 1855 painting, 'The Doubt: Can These Dry Bones Live' of a woman gazing at an open grave beside which the exhumed remains of one John Faithful are exposed, on whose skull a butterfly sits, and beside which lies a

⁷⁸ Ibid., XI ll 479 - 95.

⁷⁹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 140.

⁸⁰ John Muir, "John Muir Journals,"

[http://digitalcollections.pacific.edu/cdm/search/collection/muirjournals.Image 33](http://digitalcollections.pacific.edu/cdm/search/collection/muirjournals.Image%2033). Accessed 21 September 2016

⁸¹ Ibid. Image 33

⁸² See Michael Wheeler, *Heaven, Hell and the Victorians*, Abridged ed. (Cambridge: Cambridge University Press, 1994), pp 28 -67 for Victorian practices and attitudes concerning death.

germinating chestnut, illustrates Victorians' doubt about life after death.⁸³ For Muir, the result was that 'death becomes fearful' which was not what his experience of Bonaventure suggested.⁸⁴

In arguing for a continuity of life and death Muir was providing his own commentary on a theme which concerned Romantic poets of his time - why death? Why does the adult's growing awareness of mortality replace the innocence of the child's sensation of immortality? This, for the romantics, had its origins in the child's deep understanding and appreciation of the beauty and continuity of the natural world. In Keats's 'Ode to a Nightingale' for example, the bird had sung the same song through the ages.⁸⁵ In Blake's 'Songs of Innocence' the child asks the lamb 'Who made thee?'⁸⁶ In 'We are Seven' Wordsworth wrote of the expression of immortality by the child who insisted in conversation with an adult that despite the death of two of her siblings 'We *are* seven'[my italics].⁸⁷ In 'Ode' ('Intimations of Immortality') Wordsworth wrote that only children can experience nature fully, that 'heaven lies about us in our infancy'. With age, this sense of immortality was lost and replaced by an awareness of mortality. He wrote,

Our birth is but a sleep and a forgetting:
The Soul that rises with us, our life's Star,
Hath had elsewhere its setting,
And cometh from afar:
....But trailing clouds of Glory do we come
From God, who is our home:
Heaven lies about us in our infancy.⁸⁸

He resolved to have

... the faith that looks through death,
In years that bring the philosophic mind',⁸⁹

by observing nature, concluding,

⁸³ Ibid., p 1.

⁸⁴ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 140.

⁸⁵ <https://www.poetryfoundation.org/poems-and-poets/poems/detail/44479>. ll 63,64. Accessed 21 August 2017.

⁸⁶ <https://www.poetryfoundation.org/poems-and-poets/poems/detail/43670> l 1. Accessed 21 August 2017.

⁸⁷ in Halmi, *Wordsworth's Poetry and Prose*, p 28.

⁸⁸ Ibid., p 435 ll 58 - 61 and 64 -66.

⁸⁹ Ibid., p 439 ll 188 - 89.

To me, the meanest flower that blows can give
Thoughts that do often lie too deep for tears.⁹⁰

With confidence in the ‘truth’ inherent in nature, Muir insisted, ‘Let children walk with Nature, let them see the beautiful blendings and communions of death and life, their joyous inseparable unity, as taught in woods and meadows, plains and mountains and streams of our blessed star, and they will learn that *death is stingless* indeed, and as beautiful as life, and that the grave has no victory, for it never fights’[my italics].⁹¹ Words from I Corinthians 15: 55, stored in his memory, added emphasis to his statement. The continuity between life and death was clearly present in Bonaventure Cemetery. In Muir’s view, the problem for Christian believers was that they had introduced ‘sin’ and Jesus’s atonement for humankind’s sin into their understanding of human death. Plants and animals were able to reproduce themselves and achieve continuity between life and death. Humans would be no different if ‘sin’ were not a factor in determining their future.

Muir was studying botany. What he wrote about life and death was based on his observation of the continual resurgence of natural life following death or destruction. His scientific training contributed to his interpretation of the continuity between life and death, not only of humankind but of all living creatures. He would have been aware that the decay of matter into smaller particles and ultimately to molecules and atoms resulted in a circulation of ‘bits of matter’ including elements and complex molecules. Plants grew, nourished by the earth which contained these elements and molecules. Elemental particles circulated widely in the atmosphere, and were later reconstituted within living and non-living matter in nature. Muir now used his scientific observations to interpret the beliefs of the tradition in which he had been brought up. He did not separate science from religion, and at this stage in his life religious thinking was dominant. Muir could not accept that human death resulted from Adam and Eve’s sin, or that there was a distinct separation between life on earth and the

⁹⁰ Ibid., p 439 ll 205 - 06.

⁹¹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 140.

everlasting life promised to believers. His observations led him to recognize an essential continuity between life and death on earth.

Muir's journey through Florida was through a landscape very different to the mountainous, forest- draped landscapes he had encountered in Kentucky. In Georgia, he came across the destruction due to the Civil War 'not only apparent on the broken fields, burnt fences, mills, woods ruthlessly slaughtered, but also on the countenances of the people'.⁹² The flat landscape through which he now made his way consisted of salt marshes, overhanging vines in which he could become entangled, swampy forests, clumps of mangrove. It was difficult for him to find a way. He described being lonely, 'Everything in the earth and sky had an impression of strangeness; not a spark of friendly recognition,...not a spirit whisper of sympathy came from anywhere about'.⁹³ One day he heard a rustling sound in the swamps which turned out to be, not the alligator whose jaws he could already imagine crushing him, but a tall white crane. But he heard from others of the dangers to humans from alligators in that locality. Dated 16 October 1867, shortly after he left Bonaventure, is an entry which precedes his later detailed discussion of the equality of all creatures before God. He was reflecting on the possibility of being attacked by an alligator, and possibly also reassuring himself. He wrote, 'many good people believe that alligators were created by the Devil, thus accounting for their all-consuming appetites and ugliness.' But these creatures occupy the places 'assigned them by the Creator ...They dwell happily in these flowery wilds, are part of God's family, *unfallen, undepraved*,... and cared for with the same species of tenderness and love as is bestowed on angels in heaven or saints on earth'[my italics].⁹⁴ Is Muir here making a comparison with humankind whom Christians believed was fallen and depraved? He added, 'How narrow we selfish, conceited creatures are in our sympathies! How blind to the rights of all creation'.⁹⁵ Muir continued on his journey, from time to time finding beautiful trees e.g. 'a sun-drenched palm garden' on which to feast his naturalist's eyes. 'The silence and calm were as deep as ever I found in the solemn pine woods of Canada, and that contentment

⁹² Ibid., p 144.

⁹³ Ibid., p 145.

⁹⁴ Ibid., p 148.

⁹⁵ Ibid.

which is the attribute of God's plant people, was as impressively felt in this *alligator* wilderness as in the homes of the happy healthy people of the North' [my italics].⁹⁶

Muir's most powerful statement of his views on humankind's place in creation is to be found after he briefly gives an account, backdated to 23 October, of his collapse with malaria, and his recovery and convalescence - a period of two months which he described as 'a weary time'. The bite of an insect, which had caused his illness, led him to muse on the relationship between humankind and other living creatures. As noted Muir had been very fond of the animals he encountered as a child on the Wisconsin farm, recognizing their many moods which he found to be not unlike those of humans. He knew by memory many poems of Robert Burns. The second verse of Burns' poem, 'To a Mouse' with its regretting of humankind's dominance over other animals, was consistent with Muir's position.

I'm truly sorry man's dominion,
Has broken nature's social union,
An' justifies that ill opinion,
Which makes thee startle
At me, thy poor earth-born companion,
An' fellow mortal! ⁹⁷

Muir's main concern now was whether the world had indeed been created by God solely for the benefit of humankind - to feed him/her and to provide all that was required for the flourishing of the human species. In Genesis 1:26, as Muir knew, it was written 'let us make man in our image, after our likeness; and let them have *dominion* over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth' [my italics]. This was repeated in Genesis 1: 28.⁹⁸ Did this mean that everything non-human had been created by God solely for mankind's use and that mankind was superior to all other living creatures? Muir would have known that other Biblical texts elaborated more thoughtfully on

⁹⁶ Ibid., p 153.

⁹⁷ From Robert Burns 'To a Mouse'

<https://www.poetryfoundation.org/poems-and-poets/poems/detail/43816>. Verse 2 (ll 7 - 12). Accessed 6 January 2017.

⁹⁸ *The Holy Bible Authorized King James Version*

mankind's relation with the land and living creatures e.g. Leviticus 25: 1- 25; verse 23 states that 'The land *is* mine', that is the Lord's. Psalm 104 extolled God's creation making it clear that He cared and provided for all the creatures he had made. ⁹⁹

Muir did not doubt the existence of a Christian 'God', but he began to think that the image of this God and His intentions, with which he had grown up, was incorrect. He wrote of the 'class of men' who 'have precise dogmatic insight of the intentions of the Creator' and who are 'painfully astonished' when they find anything which they 'cannot eat or in some way render useful to themselves.' 'Their God', he writes, is an image of themselves, 'a civilized law-abiding gentleman' in favour of everything that is 'English' i.e. its literature, language, forms of government etc. He refers to this personification of God as a 'purely manufactured article'.¹⁰⁰ These people had an erroneous image of God and their interpretation of God's view of the relationship between humankind and the rest of creation was erroneous. Muir provided a satirical account of the views of the 'class of men' he was referring to, of how various non-human creatures were useful to humankind, e.g. sheep provided 'food and clothing...eating grass and daisies white by divine appointment for this predestined purpose, on perceiving the demand for wool that would be occasioned by the eating of the apple in the Garden of Eden' - that 'demand' being the need for clothing which Adam and Eve 'discovered' after they had eaten the apple. He gives a series of equally mocking explanations, of how, for example, whales, plants such as cotton and hemp, and minerals such as iron could have been created by God specifically for humankind's use and benefit. ¹⁰¹

But, as Muir pointed out, 'the facts' contradicted the 'presumption' ¹⁰² that the world and everything in it, living and non-living, was created for humankind's benefit. The 'facts' for Muir were that humankind on the earth was exposed to risk from other animate and inanimate sources - 'man-eating animals' like

⁹⁹ Ibid.

¹⁰⁰ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 160.

¹⁰¹ Ibid.

¹⁰² Ibid.

alligators, and insects which caused illness and minerals and which could be a source of poisons. These, Muir sarcastically commented, are ‘unresolvable difficulties connected with Eden’s apple and the Devil’.¹⁰³ Thus Muir challenged his simplistic early religion education, now unacceptable to him, that death and all the other misfortunes which befall humankind are the result of the ‘first sin’, that of Adam and Eve in the Garden of Eden. This conception of ‘sin’ contradicted an image of the living, natural world which was taking shape in his mind as he walked, that every part of creation including humankind and all living creatures, had an equal place and equal rights on the earth. The natural world was an organic, harmonic whole. Muir asked, ‘Does it not occur to these far-seeing teachers’ - those who had created a God in their own image - that ‘Nature’s object in making animals and plants might possibly be first of all the happiness of each one of them, not the creation of all for the happiness of one’.¹⁰⁴ Interestingly, here he used the word ‘Nature’ rather than God. He argued that the universe would be incomplete without any of the creatures which live on it, whether this was humankind or ‘the smallest transmicroscopic creature that dwells beyond our conceitful eyes’. Muir, the scientist, was aware that ‘this star, our good earth made many a successful journey around the heavens ere man was made’, and that ‘whole kingdoms of creatures enjoyed existence and returned to dust ere man appeared to claim them’.¹⁰⁵

Muir discussion of humankind’s relationship to other creatures is related in over 1200 words, comprising more than one-third of the short chapter on his stay at Cedar Keys, Florida. These concluding comments are probably the most damning words which Muir ever wrote about ‘Lord Man’, as Muir referred to that ‘class of man’ who believed that humankind was superior to all other living creatures. He suggested that only humankind of all living creatures deserved to be burned in the fire which would take place at the end of time, as implied in some Biblical texts.¹⁰⁶

Furthermore, all uneatable and uncivilisable animals, and all plants which carry prickles, are deplorable evils, which, according to the closet

¹⁰³ Ibid.

¹⁰⁴ Ibid., p 160.

¹⁰⁵ Ibid., p 161.

¹⁰⁶ For example in *The Holy Bible Authorized King James Version* 2 Peter 3: 10-12.

researches of clergy, require the cleansing chemistry of universal planetary combustion. But more than aught else mankind requires burning, as being in great part wicked, and if that transmudane furnace can be so applied and regulated as to smelt and purify us into conformity with the rest of the terrestrial creation, then the tophetisation of the erratic genius Homo were a consummation devoutly to be prayed for. But glad to leave these ecclesiastical fires and blunders, I joyfully return to the immortal truth and immortal beauty of Nature.¹⁰⁷

The Merging of Science and Religion

It could be argued that the scientific aspect of Muir's writing in *A Long Walk to the Gulf* is simply a record of the names of plants according to the classification systems documented in the copy of Woods' Botany which he carried.

Classification of plants had its eighteenth century origins in the work of Carol von Linné's (1707 -1778) *Systema Naturae*. But Linnaeus, as he was known, was a believer in a divine Creator and sought to examine the relationship between religious belief and science. His work, *The Oeconomy of Nature* (1749), gives an account of the 'geo-biologic' interactions in nature which reflected a divine harmony of existence in the natural world. Linnaeus' work was a precursor to the classification of species based on their physical and genetic closeness which Darwin later documented in *The Origin of Species*. It also contains seeds of the twentieth century scientific concept of 'ecology', a word summarising the interrelatedness of all the species found not only in a particular habitat, but also in the entire living world. Muir used Woods' botanic classification¹⁰⁸ but in his writing, he placed his scientific observations in the context of a description of harmony and relatedness which was romantic in the literary sense and also in a religious sense. He used ideas and imagery derived from the beliefs in which he had been nurtured. As he walked Muir challenged widely accepted biblical doctrines. Muir did not accept a literal interpretation of biblical texts. His perspective was closer to that of Coleridge who was critical of what he described as 'bibliolatry'. Coleridge envisaged a coming together of Reason and Imagination in the interpretation of scripture, writing, '[...] the living educts of the imagination; of that reconciling and mediatory power, which incorporating

¹⁰⁷ John Muir. *The Eight Wilderness Discovery Books*, p 161.

¹⁰⁸ Alfonso Woods, *A Class Book of Botany, Being Outlines of the Structure of the Structure, Physiology and Classification of Plants; with a Flora of the United States and Canada*, 1862 ed. (Boston, US: Crocker & Brewster, 1854).

the Reason in Images of sense, and organizing (as it were) the flux of the Senses by the permanent and self-circling energies of the Reason, gives birth to a system of symbols, harmonious in themselves and consubstantial with the truths of which they are conductors'.¹⁰⁹ Muir never got to South America, as Humboldt did. Instead, Coleridge's statement would be apposite to Muir's further religious interpretations as he walked in Yosemite between 1868 and 1873.

¹⁰⁹ quoted in David Jasper, "S. T. Coleridge, *Confessions of an Inquiring Spirit* (1840): Its Place in the History of Biblical Criticism," *Revue LISA/LISA e-journal [En ligne]* V, no. No 4 (2007), <http://lisa.revues.org/1283;DOI:10.4000/lisa.1283>. on p 5. Accessed 21 December 2016.

Chapter 3: John Muir in the Sierra

When John Muir recognized that as a result of his illness in Florida, his physical condition was such that he would not be suited to exploration in the hot tropical jungles of South America, he made his way by boat from Cuba to San Francisco, arriving there on 1 April 1868. He continued on foot into Yosemite Valley. He would spend most of the years between 1868 and 1873 living in the valley, making expeditions into the Sierra mountains and exploring the varied landscapes in which he found himself. At the start of his university studies in 1861 Muir had scribbled a dictum of natural theology into his notebook, 'Nature is the name for an effect whose cause is God', adding that experimental science is 'the only road to a true acquaintance with Nature'.¹ For Muir, scientific interpretation of Nature would reveal God. There was not a dichotomy between science and religion. As will be shown in this section, for him, God and science were part of the same story. Muir would undertake a thorough exploration of this 'true acquaintance with Nature' in Yosemite, using religious and scientific ideas and imagery to express what he discovered.

In Yosemite Muir 'read Nature', discerning the meaning of what he saw scientifically in theological terms. Some interpretations of the term 'reading nature' have been alluded to earlier. Theologically the term was rooted in a long tradition in Christianity, a centuries-old method of discerning the existence of God.² The Wisdom Books of the Bible³ spoke of the omnipotence and omniscience of God revealed in the natural world. For example, verse 1 of Psalm 19 begins, 'The heav'ns God's glory do declare, /the skies his handiwork preach'. Augustine of Hippo had written in the 5th century CE, 'there is the great book: the very appearance of created things. Look above you! Look below you! Note it! Read it! God whom you want to discover never wrote a book with ink. Instead he set before your eyes the things that he has made. Can you ask for a louder voice than that? Why heavens and earth shout to you, God made me!'⁴

¹ Worster, *A Passion for Nature. The Life of John Muir*, p 77.

² Peter M J Hess, "Nature and the Word of God in Inter-Religious Dialogue," <http://www.metanexus.net/archive/conference2004/pdf/hess.pdf>. Accessed 20 March 2017.

³ Psalms, Proverbs, Ecclesiastes, Song of Songs (Song of Solomon), Job, and Sirach.

⁴ Hess, "Nature and the Word of God in Inter-Religious Dialogue" p 2.

The term 'Natural Theology' was introduced by Raymonde of Sabunde in the fifteenth century.⁵ It described the process of finding evidence for the existence of God in the natural world. While the invention in the sixteenth and seventeenth centuries of instrumentation and of the mechanical 'laws' underlying phenomena such as the movements of the planets, gravity and motion presented challenges to theology, the physico-theologists, including John Ray (1627 - 1705) and William Derham (1657 - 1735) continued to point to the magnificence and complexities of the cosmos which remained unexplained. William Paley (1743 - 1805) argued that the complexity of the 'design' of the cosmos and of animals and plants provided evidence for the existence of a 'divine creator'. Paley's writings remained prominent in theological courses in England throughout the eighteenth century. This was the 'age of reason' when empirical evidence was sought in support of theory. In that century, according to Basil Willey, 'The Fall is no longer a haunting obsession, and whatever may be true of man, Nature was contemplated as the finished and unimprovable product of divine wisdom and beneficence'.⁶

John Muir's 'reading of Nature' also reflected the influence of the romantic interpretation of Nature in the English-speaking world in the eighteenth and nineteenth centuries. Poems such as 'The Spacious Firmament on High' by Thomas Addison, published in 1712, told of the divinity present in Nature. Prickett has written that for the 'divines' centred in Cambridge 'the scriptures as the revealed word of God stood alongside God's great revelation of himself in the Physical Universe'.⁷ Inherent in Nature were values which were interpreted by the 'Imagination' to reveal these 'fleeting shadows of an unchanging Platonic reality - even Heaven itself'. Nature was a 'symbol' to the 'initiated eye'.⁸ John Keble's 1827 poem, 'There is a book, who runs may read,' includes the lines,

The works of God, above, below
Within us and around
Are pages in that book, to show

⁵ Ibid.

⁶ Basil Willey, *The Eighteenth Century Background. Studies on the Idea of Nature in the Thought of the Period* (Great Britain: Penguin Books, 1962), p 39.

⁷ Stephen Prickett, *Romanticism and Religion* (Cambridge, London, New York, Melbourne: Cambridge University Press, 1976), p 77.

⁸ Ibid., p 81.

How God himself is found.⁹

But it is the poetry of Samuel Taylor Coleridge (1772-1834) and William Wordsworth (1770 -1850) which was best known as conveying the idea of the divine in Nature. Their collection of poems, *The Lyrical Ballads* had been published in America in 1802 and had been widely read.¹⁰ Donald Worster writes, 'Muir had undoubtedly read Wordsworth in Dunbar, in frontier Wisconsin, and during his college period in Madison'.¹¹ Muir's personal library at the time of his death contained the books of the 'American Romantics' Emerson and Thoreau and these are said to be heavily annotated.¹² Muir writes enthusiastically of his meeting with Emerson in the Sierra in 1871.¹³ He visited the grave of Emerson and Thoreau at Concord in 1893, and that of Wordsworth in the English Lake District in the same year.¹⁴

As noted earlier, at the University of Wisconsin Muir had been exposed to the then current scientific thinking about 'mechanisms' in nature, in particular to the theory of the glacial origin of certain landscapes proposed by Louis Agassiz. In the second half of the nineteenth century the term 'reading Nature' now included investigation and description of the scientific mechanisms which underlay what was observed.¹⁵ These new scientific ways of interpreting nature were also challenging the accuracy of biblical texts with respect to Creation and to the age of the earth.¹⁶ As discussed in the previous chapter, Muir's emerging challenges to biblical ideas during his thousand mile walk to Florida, related to

9

https://books.google.co.uk/books?id=CctVAAAACAAJ&pg=PA75&lpg=PA75&dq=The+works+of+God+above+below+keble&source=bl&ots=TjiDNjKeVY&sig=bzk1QN8C_3W4AjcNJGxVhxUN95E&hl=en&sa=X&ved=0ahUKEwjavdXchq7UAhWJa1AKHfPnCQM6AEILTAD#v=onepage&q=The%20works%20of%20God%20above%20below%20keble&f=false. Accessed 21 March 2017.

¹⁰ Joel Pace, *Wordsworth and America*, The Cambridge Companion to Wordsworth (Cambridge: Cambridge University Press, 2003), p 231.

¹¹ Worster, *A Passion for Nature. The Life of John Muir*, p 161.

¹² Richard F Fleck, "John Muir's Transcendental Imagery," in *John Muir. Life and Work*, ed. Sally M Miller (Albuquerque, USA: Univesrity of New Mexico Press, 1993), p 137.

¹³ Bade, "John Muir - His Life and Letters and Other Writings," p 336; Worster, *A Passion for Nature. The Life of John Muir*.

¹⁴ Bade, "John Muir - His Life and Letters and Other Writings," pp 311,12; Worster, *A Passion for Nature. The Life of John Muir*. p 336.

¹⁵ Kosso, *Reading the Book of Nature*.

¹⁶ Martin J S Rudwick, "The Shape and Meaning of Earth History," in *God and Nature*, ed. David C Lindberg and Ronald L Numbers (California and London: University of California Press, 1986), pp 307-10.

the perception of a God in the image of a human being, humankind's 'dominion' over the earth, the Christian doctrine of the Fall and the interpretation and significance of death of living organisms. Muir's emerging scientific thought interacting with his early religious beliefs were beginning to come into conflict, and he became creative in confronting areas where he saw that science and religion came into opposition or where he found inconsistencies.

The discussion which follows will examine the extent to which religious thinking coloured Muir's scientific observations of nature, and led to his personal theology. The main sources used to examine this are the two books, *The Mountains of California* (1894) and *My First Summer in the Sierra* (1911) which are included in Terry Gifford's *John Muir. The Eight Wilderness Discovery Books*.¹⁷ Muir's books were published a long time after his actual experiences in the Sierra. Muir had written several articles about Yosemite and the Sierra in the 1860s and reused this material, as well as letters to friends, in his books. *The Mountains of California*, his earliest book, is at first sight a scientific account of the Sierra landscapes while. *My First Summer in the Sierra*, published seventeen years later is Muir's most explicitly 'religious' or 'spiritual' account of his Yosemite experience, even if Muir the naturalist is present throughout. Muir's discovery of the glacial origin of Yosemite Valley is contained in *Studies of the Sierra*.¹⁸ The same material is included in the two main sources used here.

Science and Religion in *The Mountains of California* ¹⁹

Muir's first book encompasses scientific areas now known as botany, geology, hydrology and climatology, all contained within an account of the natural history of the landscape of the mountainous region of California - the Sierra Nevada. As the titles of the chapters indicate, Muir observes: 'The Glaciers', 'The Passes', 'The Glacier Lakes', 'The Glacier Meadows', 'The Forests,' and what Muir refers to as 'The Bee-Pastures' - areas where an abundance of flowers and trees is

¹⁷ Gifford, *John Muir. The Eight Wilderness Discovery Books*.

¹⁸ John Muir, "Studies in the Sierra,"

http://vault.sierraclub.org/john_muir_exhibit/writings/studies_in_the_sierra/. Accessed 21 March 2017.

¹⁹ in Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 295 - 451.

attractive to bees. He writes about his discovery of the glacial origins of Yosemite Valley and about climatic events - 'A Wind Storm in the Forest', 'The River Floods' and 'Sierra Thunder Storms'. But religious imagery, biblical quotations and references to an active, creative Nature abound in the chapters of this book. This is a book concerned with Creation, read both scientifically and religiously.

On the very first page of this book Muir comments that the Sierra Nevada 'seems to be not clothed with light, but wholly composed of it, like the wall of some celestial city.... It should be called the Range of Light'.²⁰ The imagery of 'light' or 'Light' is one which, as earlier noted, recurred repeatedly in Muir's writings and which had profound significance for him. His experience of near blindness in March 1867 could be described as one of loss of 'light'. His use of this imagery may also include allusion to the creation myth in Genesis 1.3 in which God's first act is the creation of light. Scientific, physical and theological enlightenment all underlie Muir's pre-occupation with 'light'.

Muir's knowledge of the Bible is evident in his many uses of well-known biblical phrases to describe what he is observing. He described the effect of the snow on the landscape - 'The rough places are then made smooth'.²¹ He wrote the words of snowflakes engaged in 'creating' a landscape, 'let us roll away the stones from these mountain sepulchres and set the landscape free'.²² Of the calm following a wind storm 'hushed and tranquil forests' were a 'devout audience' and seemed to say, 'My peace I give you'.²³ Moreover, for Muir, God's love and Nature's love became identical in 'the darkest scriptures of the mountains are illumined with bright passages of love that never fail to make themselves felt when one is alone'²⁴, and while passing through the 'sombre rocks' of the Mono Pass, 'the azure daisies beam with trustfulness and sympathy, enabling us to feel

²⁰ Ibid., p 295.

²¹ Ibid., p 298.

²² Ibid., p 302.

²³ Ibid., p 402.

²⁴ Ibid., p 319.

something of nature's love even here, beneath the gaze of her coldest rocks'.²⁵ This 'love' which Muir ascribed to Nature seemed to describe the effect on him of the peace, beauty and harmony which he had found in the natural world. This religious perspective was expressed within the context of a natural historian's description of the landscape of the Sierra.

Muir's botanical knowledge dominates several chapters of the book especially 'The Forests' and 'The Bee-Pastures'. In 'The Forests' each species is comprehensively described, the climate and times of year in which it flourishes, its appearance - diameter of trunk and height, colour and patterning of the foliage, appearance of cones, the patterning of the spread of branches. This is a well-informed and observant botanist's account of the coniferous forests which are 'unique worldwide' in their 'inviting openness', incidentally thereby also letting the light in.²⁶ The Sequoia is clearly the species with which Muir is most intrigued, especially as 'this tree has a long history'. One dead specimen which Muir, by counting the growth rings, reckoned was over 4000 years old, was 'in its prime...when Christ walked the earth'.²⁷ In this chapter Muir writes, 'The giant pines and firs, and Sequoias hold their arms open to the sunlight, rising above one another on the mountain benches, marshalled in glorious array, giving forth the utmost expression of grandeur and *beauty* with inexhaustible variety and *harmony* [my italics]'.²⁸ At the same time as Muir was finding harmony in the natural world, the balanced relationship in nature between all living organisms was being identified. In *Nature's Economy*, Donald Worster writes that 'harmony' implies the balance between living organisms in the natural world, a balance which is described by the word 'oecology', as first used by German zoologist Ernst Haeckel in 1869.²⁹ Modern usage of that word, now spelled 'ecology', describes this balanced relationship and identifies its scientific bases.

²⁵ Ibid., p 330.

²⁶ Ibid., p 355.

²⁷ Ibid., p 379.

²⁸ Ibid., p 355.

²⁹ Donald Worster, *Nature's Economy. A History of Ecological Ideas*, Second ed. (USA: Cambridge University Press, 1994), p 192.

Two other chapters - 'The Glacier Meadows' and 'Bee-Pastures' also reveal Muir as the well-informed taxonomist, this time writing on the flora of the Sierra Nevada. In 'The Glacier Meadows' he describes the 'garden meadows...crowded with flowers', (many of which he named), which have sprouted in filled-up glacier lake basins 8,000 to 9,000 feet above sea level.³⁰ Yet, unable to separate science and religion, Muir referred to a scene that is 'impressively spiritual' and 'you seem dissolved in it, yet everything is beating with warm, terrestrial human love'.³¹ Paraphrasing Emerson's 'I become a transparent eyeball',³² Muir writes of being 'all eye, sifted through with light and beauty'.³³ He muses on whether the pleasure of 'pure Nature...permeating one's very flesh and bones, unfits the student for scientific pursuits in which cool judgement and observation are required', and concludes that instead 'the mind is fertilised and developed and stimulated like sun-fed plants'.³⁴ For Muir the scientist, a deeply pleasurable, spiritual experience of the natural world did not remove the capacity for scientific observation and interpretation. Thoreau had concurred in writing, 'The man of science, who is not seeking for expression but for a fact to be expressed merely, studies Nature as a dead language. I pray for such inward experience as will make Nature significant'.³⁵ Muir, the man of science, used his religious imagery to 'make Nature significant'. In 'Glacial Meadows', 'Nature' often appears as a creative force. For example, she 'alone..... draws the free curving lines' along which the trees grow; ³⁶ one can 'wade out into the grassy sun-lake feeling oneself contained in one of Nature's most sacred chambers'.³⁷ Nature has 'fingered and adjusted every plant on the divinely beautiful lawn'.³⁸ In 'The Bee-Pastures' Muir, the scientist, provides a fact-filled account of the many flowering species and shrubs which grow abundantly in these lower lying meadows and the seasonal variations which occur. 'Mother Nature', he writes, 'has accomplished her beneficent designs' creating a 'flowery wilderness' in

³⁰ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 348.

³¹ *Ibid.*, p 349.

³² Ralph Waldo Emerson, "Nature," in *The Norton Anthology of American Literature Volume B 1820 - 1865*, ed. Rober S Levine and Arnold Krupat (New York, London: W W Norton & Company, 1936), p 1112.

³³ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 349.

³⁴ *Ibid.*, p 350.

³⁵ quoted from Thoreau's Journal 5:135 in Max Oelschlaeger, *The Idea of Wilderness* (New Haven and London: Yale University, 1991), p 157.

³⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 349.

³⁷ *Ibid.*

³⁸ *Ibid.*, p 350.

which the bees ‘rove and revel’ and other insects ‘abound and flourish’. And ‘as the bees hug their favourite flowers, so does ‘Mother Nature clasp her bee-babies’ [i.e. flowers] and suckle them...on her warm Shasta breast’.³⁹

Muir, the geologist, gives an account of how the current landscape of the mountains emerged. In the opening chapter of *The Mountains of California* - The Sierra Nevada - he explains that, ‘only a short geological time ago’ the volcanic rock which constituted the area, especially the northern ranges, gave rise to constant eruptions of molten lava which spewed out everywhere to the lowest levels, obliterating much of the landscape. The present configuration of Mount Shasta in the north, a volcanic cone 14, 400 feet high, is the result of numerous eruptions during the geological era of volcanic activity. Then, according to Muir, even ‘while the great volcanic cones built up along the axis still burned and smoked, the whole Sierra passed under the domain of ice and snow’.⁴⁰ Crushing, eroding and grinding the underlying rocks, the ice sculpted the landscape producing the current Sierra landscapes of mountains, domes, canyons and ridges on which plants and animals have established themselves. ‘Nature’, writes Muir, ‘chose for a tool not the earthquake or lightening to rend and split asunder, nor the stormy torrent or eroding rain, but the tender snow-flowers noiselessly falling through unnumbered centuries’ which ‘labouring harmoniously in united strength ..crushed and ground and wore away the rocks...making vast beds of soil...and fashioned the landscape into the delightful variety of hill and dale that mortals call beauty’.⁴¹ Muir’s descriptive account of how the aggregation of tiny, weightless particles can together constitute an agent which is powerful enough to re-sculpture majestic landscapes is striking. He identifies the work of an active Nature - ‘*natura naturans*’⁴² by these tiny particles of ice. ‘Nature’s poems are carved on tables of stone,’ he writes, and ‘while we thus contemplate Nature’s methods of landscape creation, and, reading the records she has carved on the rocks reconstruct, however imperfectly, the landscapes of

³⁹ Ibid., p 445.

⁴⁰ Ibid., p 300.

⁴¹ Ibid., p 301.

⁴² *Oxford English Dictionary*. The term *natura naturans* was first used in the middle ages and is associated with Baruch Spinoza. Samuel Taylor Coleridge defined it as ‘Nature in the active sense’ as compared with *natura naturata* referring to Nature simply as it appears.

the past, we also learn that as these we now behold have succeeded those of the pre-glacial age, so they in turn are withering and vanishing to be succeeded by others yet unborn'.⁴³

Muir, the climatologist, devotes three chapters of his book to the elements - wind, rain and thunderstorms. Each time he goes outdoors, often up to high levels - hilltops and treetops - to experience these events, and each time he is excited and informed by the experience. He studies the effect of a 'beautiful and exhilarating' wind storm in the forest, climbing a Douglas spruce 'to obtain a wider look and to get my ear close to the Aeolian music of its needles'.⁴⁴ He studies river flooding carefully, explaining the factors which contribute to the accumulation of flood water, and how wind, rain and water behave, as simultaneously but separately they move over the landscape. Observing a thunderstorm, he climbs, again to obtain the best possible viewpoint for 'one of the most glorious views I ever beheld'.⁴⁵ He notices 'the same divine methods of giving and taking, and the same exquisite adaptation of what seems an outbreak of a violent and uncontrollable force to the purposes of beautiful and delicate life'.⁴⁶ These severe climatic events are not for Muir, occasions for damage and destruction to be inflicted on the environment and on people. The 'manifest result of all this wild storm-culture is the glorious perfection we behold; then faith in Nature's forestry is established'.⁴⁷ Observation, thought, reflection and imagination persuaded Muir of the restorative value to the environment of these extreme events brought about by the power of active Nature.

Muir made many references to the damaging impact of humankind on the natural environment in the nineteenth century. Domestic sheep, described by him as 'horned locusts', destroyed the vegetation. He compared them unfavourably with naturally occurring 'wild sheep' which he believed were well equipped to live in balance with their environment.⁴⁸ Damage was also caused by fires set by shepherds to clear the way for their herds. He writes of the lumber

⁴³ John Muir. *The Eight Wilderness Discovery Books*, p 324.

⁴⁴ *Ibid.*, p 399.

⁴⁵ *Ibid.*, p 405.

⁴⁶ *Ibid.*, p 406.

⁴⁷ *Ibid.*, p 397.

⁴⁸ *Ibid.*, p 421.

men who cut down sugar pines to make shingles, commenting that ‘the havoc they make is most deplorable’.⁴⁹ Sequoias were at risk from the timber trade. ‘If the importance of forests were at all understood, even from an economic standpoint, their preservation would call forth the watchful attention of the government’.⁵⁰ Gold mining had resulted in river channels choked with gravel and ‘hills have been cut and scalped and every gorge and gulch and valley torn to pieces and disembowelled’.⁵¹ Muir concluded sadly that ‘the time will undoubtedly come when the entire area of this noble valley will be tilled like a garden, when the fertilising waters of the mountains, now flowing to the sea, will be distributed to every acre, giving rise to prosperous towns, wealth, arts etc...[and] few will deplore the vanished primeval flora..’ describing these events, in biblical terms as ‘the wanton destruction of the innocents’.⁵² As Muir deplores the damage done to the wild landscapes, he is aware in a limited way of the impact of ‘civilising’ influences on the *ecosystem*,⁵³ - a concept as yet to be defined i.e. the balanced relationship between the living and non-living components of any specified environment. Rather he perceives the loss of the ‘beauty’ and ‘harmony’, of the landscape which were so important to him and which had divine connotations.

Reading Sacred Nature in Yosemite

My First Summer in the Sierra (1911)⁵⁴ focusses more directly on Muir’s religious interpretation of the Yosemite landscape. It is the result of extensive editing of two earlier journals. Holmes has made a detailed study of the 1877 journal which Muir edited in the late 1880s in preparation for writing *My First Summer in the Sierra*, as well as an extant earlier journal dated 1873.⁵⁵ He finds that Muir

⁴⁹ Ibid., p 361.

⁵⁰ Ibid., p 377.

⁵¹ Ibid., p 430.

⁵² Ibid., p 440.

⁵³ In Worster, *Nature’s Economy. A History of Ecological Ideas*, p 471. an ecosystem is described as a model of interrelatedness in nature in which biological and non-biological elements function as one entity with an emphasis on the cycling of nutrients and the flow of energy.

⁵⁴ In Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 191 - 287.

⁵⁵ Holmes, *The Young John Muir: An Environmental Biography*, pp 253 - 59.

used material from letters which he wrote to friends while in Yosemite in the late 1860s and early 1870s to edit the 1877 journals. Muir also added much new material in order to set the scene or to enhance the narrative. Holmes comments that 'the edited 1877 journal contains much religious language that is not used in the 1873 journal'.⁵⁶ Nonetheless, in writing this book, Muir made the decision in later life to publish an account which provided his personal religious perspective. He condensed his Yosemite experience into a journal account of one summer in 1869. His narrative is a retrospective interpretation of his travels in Yosemite. Holmes believes that the 'conversion' experience which Muir recounts (see below) is unlikely to have been the sudden event which Muir describes, 'but rather as the self-conscious results of his later literary and philosophical development'.⁵⁷

My First Summer in the Sierra is an ecstatic, exuberant, comprehensive and predominantly religious, poetic interpretation of Muir's experiences in the Sierra. He wrote of his experience of the interrelationship of God, Nature, Light, Love, and began with accounts of his 'baptism' and 'conversion' to his new faith. Of his 'first days' in the Sierra, spent in 'Twenty Hill Hollow' in the plain between the Merced and Tuolumne rivers, he wrote, 'Never shall I forget my *baptism* in this font. It happened in January, a resurrection day for many a plant and me'. He described his vision of the distant Sierra Mountains writing, 'plain, sky and mountains ray beauty which you feel. You bathe in these spirit-beams, turning round and round...Presently you lose consciousness of your own separate existence; you blend with the landscape and become part and parcel of Nature' [my italics].⁵⁸ This was Muir's first account, in transcendentalist language, of being 'baptized' in the Sierra. As a result of his baptism he was losing consciousness of an independent self and blending into the landscape. More baptisms were to follow.

⁵⁶ Ibid., p 258.

⁵⁷ Ibid., p 7.

⁵⁸ Muir, "A Thousand Mile Walk to the Gulf," p 182.

My First Summer in the Sierra contains clues about the 'God' Muir experienced in the Sierra. He observed and wrote of nature as the work of this God, a Creator-God, to whom he referred throughout *My First Summer in the Sierra* simply as 'God', as if this 'God' would be known to his readers. Significantly, in Yosemite, Muir found his God everywhere in nature. All Nature - plant and animal life, rivers, rocks, mountains as well as the skies above - was 'Godful'.⁵⁹ His writing is replete with expressions of God's creativity - 'God's wilderness', 'God's woods', 'God's sunshine', 'God's trees', 'God's light'. God was *actively* at work in this natural world 'doing his best, *working* like a man in a glow of enthusiasm' creating and caring for his creation [my italics].⁶⁰ He was 'preaching', as were birds and stones which, 'preach his sermons' and 'convey his love'. He wrote of 'Godful work', of the 'Godful influence' of the pine forests.⁶¹ John Muir found an immanent God, one intimately present in the natural world, not a god who had created it and then left it to its own devices. As in *The Mountains of California* creation was continuous. Muir described experiences of the 'divine' in Nature e.g. a 'divine day' which 'I shall never forget'. He wrote at the end of his summer in the Sierra, 'The features of the wildest landscape...radiate *spiritual beauty, divine thought*, however concealed by rock and snow' [my italics].⁶² He experienced 'Days in whose light everything seems equally divine, opening a thousand windows to show us God'.⁶³

Muir's appreciation of the landscape was primarily an aesthetic one. For Muir, God and the beauty everywhere manifest in the natural world were one and the same. 'No synonym for God is so perfect as Beauty', he wrote, 'Whether as seen carving the lines of mountains and glaciers, or gathering matter and stars, or planning the movements of water, or gardening - still all is Beauty'.⁶⁴ He commented, 'All beauties melt into one first-God Beauty'.⁶⁵

⁵⁹ John Gatta, *Making Nature Sacred Literature, Religion, and Environment in America from the Puritans to the Present* (New York: Oxford University Press, 2004), pp 148,49.

⁶⁰ Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 258, 79, 18, 05, 86, 59, 12.

⁶¹ *Ibid.*, p 260.

⁶² *Ibid.*, pp 282 - 83.

⁶³ *Ibid.*, p 212.

⁶⁴ Wolfe, *John of the Mountains. The Unpublished Journals of John Muir*, p 208.

⁶⁵ quoted in Stephen K Hatch, *The Contemplative John Muir Spiritual Quotations from the Great American Naturalist* (Milton Keynes: LULU Lightning Source UK Ltd, 2012), p 180. from John Muir Papers Reel 23, frame 00269

As creation continued, Nature continued to write messages that needed to be read. Muir wrote, 'God is ...yet writing passages that we *can* understand and that come *within our sympathies*' [my italics].⁶⁶ Muir elaborated on the feeling of being merged with nature, writing of an experience which went beyond his five senses and was experienced by his whole body at the level of the emotion. Sitting sketching on North Dome, observing mountains 'compactly filled with God's beauty', he wrote of the body 'feeling beauty' when exposed to it....entering it not by the eyes alone, but equally through all one's flesh like radiant heat'.⁶⁷ He felt his body to be 'one tingling palate' ⁶⁸ when in the midst of Nature's beauty. Nature, (or God) was *within* him. On entering the lower slopes of the Sierra mountains, he wrote 'they [the mountains] are in us, kindling enthusiasm, making every nerve quiver, filling every pore and cell of us. Our flesh and bone *tabernacle* seems transparent as glass to the beauty about us, as if truly an inseparable part of it, thrilling with the air and trees, streams and rocks, kindling enthusiasm, making every nerve quiver, filling every pore and cell of us'. He became 'a part of all Nature' [my italics].⁶⁹ Muir described this experience as 'a *conversion*,.. so complete and wholesome it is, scarce memory enough of the old bondage days left as a standpoint to view it from' [my italics].⁷⁰ Muir could have been replacing his childhood knowledge and understanding of a powerful and vengeful God in 'the old bondage days' with what seemed to him a glorious revelation, that he himself was free and an integral part of God's creation. Or he could have been making an allusion to the release of the Israelites from slavery under the Egyptians. His conversion was to a theology of nature.⁷¹ It is of interest that William James' definition of conversion could also be appropriate in Muir's case. 'To be converted... denotes

⁶⁶ quoted in *ibid.*, p 67 from John Muir Papers Reel 34, frame 01989

⁶⁷ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 238.

⁶⁸ *Ibid.*, p 246.

⁶⁹ *Ibid.*, pp 195-96.

⁷⁰ *Ibid.*, p 196.

⁷¹ John Tallmadge, "John Muir and the Poetics of Natural Conversion," *The North Dakota Quarterly* 59, no. 2 (1991). In his article Tallmadge draws comparisons with the conversion of Saint Paul, who experienced blindness prior to conversion, and to the confessional writings of Saint Augustine concerning his conversion.

the process by which a self, hitherto divided...becomes unified...in consequence of a firmer hold upon religious realities'.⁷²

In this extract, Muir spoke of a 'conversion'. As noted, several experiences of 'baptism' - the imagery of a sacramental manifestation of acceptance into a new faith - occurred in Yosemite. He had been 'baptized' when he entered the Sierra, at Twenty Hill Hollow, as noted earlier. He had been 'baptized' in the 'irised foam of the Vernal and in the divine snow of Nevada'.⁷³ He wrote to his brother David in April 1870 of being 'baptized' three times in one day, first 'in the balmy sunshine that penetrated to my very soul, warming all the faculties of the spirit', second 'in the mysterious rays of beauty that emanate from plant corollas', third 'in the spray of the lower Yosemite Falls'.⁷⁴ He described these last three baptisms - the first by 'immersion', the second by 'pouring', and the third by 'sprinkling'. The context of this letter was a debate within the Disciples of Christ as to the 'correct' mode of baptism. For Muir, all three methods were equally valid. For Alexander Campbell, the leader of the Disciples of Christ, baptism by immersion was the appropriate method. The Disciples rejected the Calvinist idea of 'conversion' with the continuing uncertainty of waiting and hoping for God's sign that one was saved.⁷⁵ For them baptism by immersion and living a good life were the means of salvation. But what for Muir in Yosemite was the personal meaning of this rite? For Stephen Holmes, Muir used the term 'baptism' as 'a metaphor for an intense experience of nature'.⁷⁶

Muir's reference to his body as a 'tabernacle' is quoted above. In addition, the Sierra landscape in which he practised his 'new' faith was a sacred space - a place in which to worship. He found a nearly cubical mass of granite 'standing square and firm and solitary like an altar', 'the place seemed holy.. where one might hope to see God'. He later found his way back to the stone and 'passed

⁷² William James, "Varieties of Religious Experience." Chapter IX <http://xroads.virginia.edu/~hyper/wjames/ch09.html>. l 1-3. Accessed 21 July 2017.

⁷³ Letter to Mrs Jeanne Carr 29 July 1870, quoted in Holmes, *The Young John Muir: An Environmental Biography*, p 213.

⁷⁴ Bade, "John Muir - His Life and Letters and Other Writings," p 116.

⁷⁵ Holmes, *The Young John Muir: An Environmental Biography*, n. p 68.

⁷⁶ *Ibid.*, p 214.

the night' on it.⁷⁷ After spending some time on Cathedral Peak, 'with spires and pinnacles in regular cathedral style',⁷⁸ 'a temple displaying Nature's best masonry and sermons in stones',⁷⁹ he wrote to his brother that this was the first time he had gone to church in California. 'In our best time, everything turns into religion and all the world seems a church and the mountains altars'. The bell-shaped flowers of Cassiope were providing 'the sweetest church music' he had ever heard.⁸⁰ He was critical of tourists who were blind to Yosemite's wonders while 'the sublime rocks were trembling with the tones of the mighty chanting congregation of waters'.⁸¹ Muir was 'never weary' of gazing at the Cathedral Peak and the forests and lakes and meadows. 'I should like to dwell with them forever' he said, echoing Psalm 27:4. 'One would be at an endless Godful play, and what speeches and music and acting and scenery and lights! - sun, moon stars, auroras. Creation just beginning, the morning stars still singing together and all the sons of God shouting for joy',⁸² as in the story of creation recounted in Job 38:7. His liturgical celebration was a dramatic presentation. For Muir, the Sierra was a place of hierophany.⁸³

Muir described Creation as 'one outpour emanation from God'.⁸⁴ In Genesis 2:7 God breathed his spirit into the man giving him life. But for Muir God breathed life into all creation and was continually doing so. He described this ongoing process, stating that one would have to wait a 'few million years' to see the transition from 'silent frozen characterless wastes' to the 'world of beauty, of seas and mountains, of flowers and forests, of song birds and people' which was Yosemite in the nineteenth century.⁸⁵ He commented on the 'infinite lavishness and fertility of Nature' in which 'no particle of her material is ever wasted or worn out. It is eternally *flowing from use to use*, beauty to yet higher beauty; and we soon cease to lament waste and death, and rather rejoice and exult in

⁷⁷ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 207.

⁷⁸ *Ibid.*, p 263.

⁷⁹ *Ibid.*, p 282.

⁸⁰ *Ibid.*

⁸¹ *Ibid.*, p 260.

⁸² *Ibid.*, p 268.

⁸³ Mircea Eliade, *The Sacred and the Profane. The Nature of Religion*, trans. William R Trask (United States: Harcourt Inc, 1959), p 21.

⁸⁴ quoted in Williams, *God's Wilds John Muir's Vision of Nature*, p 55.

⁸⁵ Hatch, *The Contemplative John Muir Spiritual Quotations from the Great American Naturalist*, p 290. from Three Days with John Muir

the imperishable, *unspendable* wealth of the universe, and faithfully watch and wait the reappearance of everything that melts and fades and dies about us, feeling sure that its next appearance will be better and more beautiful than the last'[my italics].⁸⁶ 'Flowing from use to use' alludes to the connectedness of everything in the natural world, a theme which underlies one of Muir's best known remarks, 'When we try to pick out anything by itself, we find it hitched to everything else in the universe'.⁸⁷ Could his reference to nature's 'unspendable' wealth also indicate this connectedness of everything in the natural world? In *Our National Parks*,⁸⁸ published in 1901, he wrote, 'Nature is ever at work building and pulling down, creating and destroying, keeping everything whirling and flowing, allowing no rest but in rhythmical motion, chasing everything in endless song out of one beautiful form into another'.⁸⁹ As he had described in *The Mountains of California*, living, and non-living matter participated in creation. Water, as fluid ice or snow carried minerals, plants, seeds, spores and rocks elsewhere in the process of perpetual recreation. Even the stars, he said 'go streaming through space pulsed on and on forever like blood...in Nature's warm heart'.⁹⁰

Muir was convinced that 'God's creation is unchangeably pure, unfallen, and undepravable'[sic].⁹¹ His perceived 'purity' of Nature, challenging the perception of 'wild nature' or 'untamed nature' which was held by some early European settlers as noted in the preceding chapter. Instead, Muir found God's Love in nature suffusing 'all the earth as the sky covers it', filling 'every pore', present and proclaimed everywhere in nature in voices 'heard by all who have ears to hear'.⁹² Not only the 'purity' of flowers, but even glaciers spoke of love. They were 'great, strong, tremendously faithful John [the] Baptists proclaiming the gospel of harmonious love'. He continued, '[The wildflower] Cassiope .. is one of the most effective apostles of the gospel of the glaciers, an ambassador

⁸⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, P 279.

⁸⁷ *Ibid.*, P 248.

⁸⁸ *Ibid.*, PP 459 - 605.

⁸⁹ *Ibid.*, P 497.

⁹⁰ *Ibid.*, P 277.

⁹¹ quoted in Williams, *God's Wilds John Muir's Vision of Nature*, pp 92, 93.

⁹² Engberg and Wesling, *John Muir. To Yosemite and Beyond*, p 160.

of heaven'.⁹³ He summed this up, 'Whatever we can read in all the world is contained in that sentence of boundless meaning, "God is Love". This is the sum and substance of all the sunshine utters, and all that is spoken by the calms and storms of the mountains, and by what we call terrible earthquakes and furious torrents, and wild beating tones of the ocean. All these manifestations are but forms of that one utterance: "God is love".⁹⁴ From Yosemite Valley he wrote to his friend Emily Poulton in 1872, 'It is blessed to lean fully and trustingly on Nature, to experience, by taking to her a pure heart and unartificial [sic] mind, the infinite tenderness and power of her love'.⁹⁵ God's love illuminated his world, 'How apparent are the love and tenderness of God in the keeping of those dear delicate plant-children of His in places we are wrongly taught to call wild, desolate, deserted! God's love covers His world like a garment of light'.⁹⁶ In Yosemite Muir found the Christian God of Love and Light.⁹⁷ He wrote, 'God who is Light has led me tenderly from light to light to the shoreless ocean of rayless beamless Spirit Light that bathes these holy mountains'.⁹⁸

Muir was certain that Nature transmitted moral lessons to those who were receptive to its communications. That Jesus was inspired to deliver the Sermon on the Mount in a natural environment was read by Muir as an image that the Beatitudes were inherent in natural landscapes. He found Yosemite Fall 'a bible which contained Christ's Sermon on the Mount'.⁹⁹ The Sermon on the Mount was 'chanted by winds and falling water; thunderclouds and avalanches, and whispered by a thousand, thousand small still voices of birds and plants'.¹⁰⁰ Muir argued that 'The expressions of God cannot mean love to one, hate to another. The sermon of Jesus on the Mount is on every valley besides [full of] unmistakable joy and confidence'.¹⁰¹ Yet while Muir was confident that these

⁹³ quoted in Hatch, *The Contemplative John Muir Spiritual Quotations from the Great American Naturalist*, p 71. from John Muir Papers Reel 34, frame 012131

⁹⁴ quoted in Williams, *God's Wilds John Muir's Vision of Nature*, p 58. from a letter to his sister Margaret Muir Reid 1st March 1873

⁹⁵ Bade, "John Muir - His Life and Letters and Other Writings," p 164.

⁹⁶ Wolfe, *John of the Mountains. The Unpublished Journals of John Muir*, p 81.

⁹⁷ *The Holy Bible Authorized King James Version* 1 John 4:7-8

⁹⁸ Bade, "John Muir - His Life and Letters and Other Writings," p 185

⁹⁹ quoted by Hatch, *The Contemplative John Muir Spiritual Quotations from the Great American Naturalist*, p 68. from John Muir Papers Reel 23, frame 00562

¹⁰⁰ quoted by *ibid.*, p 70. from John Muir Papers Reel 39, frame 07035

¹⁰¹ quoted in *ibid.* from John Muir Papers, reel 34, frame 02131

biblical messages were present everywhere, he did admit that he could not always 'read' them. 'Miles and miles of scripture along the sky, a bible that will one day be read! The beauty of its letters and sentences have burned me like fire through all these Sierra seasons. Yet I cannot interpret their hidden thoughts.'¹⁰² In this statement Muir could have been anticipating the scientific exploration of the cosmos.

While *My First Summer in the Sierra* was the result of Muir's editing of his 1877 journals in the late 1880s, his correspondence during the early years of the 1870s illustrates the way he was now developing his personal religious practice. Liturgy and worship was conducted in nature. In March 1870, he wrote to his brother David, 'I have not been at church a single time since leaving home. Yet this glorious valley might well be called a church, for every lover of the great Creator who comes within the broad overwhelming influence of the place fails not to worship as he never did before. The glory of the Lord is upon all his works; it is written plainly upon all the fields of every clime, and upon every sky, but here in this place of surpassing glory the Lord has written in capitals'.¹⁰³ In a letter to Mrs Carr in April 1871, he notes the interrelationships of all matter in the natural landscape which include invisible spiritual beings, and seeks an understanding of humankind's spiritual interaction and connection with this world, writing, 'How little we know of ourselves, of our profoundest attractions and revulsions, of our spiritual affinities! How interesting does man become considered in his relations to the spirit of this rock and water! How significant does every atom of our world become amid the influences of those beings, unseen, spiritual angelic mountaineers that so throng these pure mansions of crystal foam and purple granite'.¹⁰⁴ The mixing of scientific ('attractions', 'revulsions', 'affinities') and religious images ('unseen, spiritual angelic') in these sentences is striking.

¹⁰² Bade, "John Muir - His Life and Letters and Other Writings," p 205.

¹⁰³ Ibid., p 113.

¹⁰⁴ Ibid., p 131.

‘Reading Nature’ - Muir and the English and American Romantics

John Muir’s experience of the sacred in Nature, the moral lessons it taught, its harmony and creativity, were themes developed from the romantic tradition in the arts in the English-speaking world of the late eighteenth and early nineteenth centuries. The impact of romantic literature on Muir’s thinking has already been alluded to, and by the time he was revising his journals in preparation for writing *My First Summer in the Sierra* in the late 1880s he would have known this literature well. In *To Yosemite and Beyond*, Robert Engberg and Donald Wesling write, ‘*Natura naturans*, the informing Nature behind natural appearances is what John Muir comes to prize: partly through knowledge of Wordsworth and Ruskin and Emerson and their similar and earlier Protestant need for a *natural supernaturalism*...partly through what he learned through his own eyes during his first summer in the Sierra’.¹⁰⁵ Engberg and Wesling describe Muir’s prose as ‘a striking American instance of Abram’s very powerful thesis on “the secularization of inherited theological ideas and ways of thinking” and express surprise that Muir was not mentioned by Abrams.’¹⁰⁶ Given the more detailed account of Muir’s interpretation of the divine in Nature above, some similarities with ‘romantic’ accounts of the ‘sacred’ relationship between humankind and Nature of Wordsworth, Emerson and Thoreau are evident.

In Muir’s writing Nature was continually creating. *Natura naturans* is active and creative. Coleridge imagined this as a ‘plastic’ power that ‘rolls through matter’.¹⁰⁷ Muir’s description of the divine in Nature permeating his entire being closely resembles that described by Wordsworth in Tintern Abbey,

A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man,
A motion and a spirit, that impels

¹⁰⁵ The term ‘natural supernaturalism’ was introduced by Thomas Carlisle in his 1836 novel *Sartus Resartus*.

¹⁰⁶ Engberg and Wesling, *John Muir. To Yosemite and Beyond*, p 14; M H Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (New York: W W Norton & Company Inc, 1958).

¹⁰⁷ Marcell Isnard, “Nature,” in *A Handbook to English Romanticism*, ed. J R Watson Jean Rainard (London: Macmillan, 1992), p 186.

All thinking things, all objects of all thought,
And rolls through all things.¹⁰⁸

Muir would have known Wordsworth's reference to the 'harmony' of Nature in this poem when he wrote,

While with an eye made quiet by the power
Of harmony, and the deeper power of joy,
We see into the life of things.¹⁰⁹

Finding moral lessons in Nature, Muir is likely to have shared Wordsworth's view in his poem 'The Tables Turned' that,

One impulse from a vernal wood
may teach you more of man,
Of moral evil and of good,
Than all the sages can.....¹¹⁰

Muir shared with Ralph Waldo Emerson and Henry David Thoreau a recognition of the intimate relationship between humankind and Nature, but Muir's perception of that relationship, described above, was different. In the writing of Emerson and Thoreau, imagery of a 'deity' is not of a distinct entity, but of an ideal conceived in the human imagination. Emerson's interpretation of Nature's relationship with humankind, unlike that of Muir, was a cerebral one, developed in thinking and writing indoors, rather than through a direct engagement with the natural world. In Nature Emerson's overriding theme is that the sole and ultimate source of all human needs, physical, aesthetic, cultural - especially language - and spiritual, including moral guidance, is Nature. Key to Emerson's thought was the intimate, enmeshed relationship and interaction - 'correspondence' - between the human mind and Nature. Emerson's model of this interrelationship was one of the working in the mind, of a Coleridgian Imagination, on sensory impressions from 'Nature' resulting in an understanding of all that Nature conveyed. In Nature, he wrote, 'I become a transparent eyeball. I am nothing. I see all. The currents of the Universal Being circulate through me; I am part or particle of God'.¹¹¹ According to William James, 'Emersonianism' lets God evaporate into an abstract reality...the immanent

¹⁰⁸ 'Tintern Abbey' in Halimi, *Wordsworth's Poetry and Prose*, p 65 ll 95-103.

¹⁰⁹ Ibid., p 67 ll 48-50

¹¹⁰ 'The Tables Turned' in ibid., p 60 ll 21 -24.

¹¹¹ Emerson, "Nature," p 1112.

divinity in things, the essential spiritual structure of the universe', a platonic ideal.¹¹² Emerson's interpretation of Nature was therefore very different to that of Muir, who simply studied 'the things that are made' through his direct experience. Muir did not doubt that his 'God' was real and present in the natural world around him, whether as 'Nature' or as 'Beauty'. What Muir admired in Emerson was his acknowledgement of the central role of Nature in humankind's existence and being. Brennan sums up the difference between Muir's 'transcendental' experience and that of Emerson. For Muir, this was 'an experience of spirituality given meaning by direct physical immersion in Nature...In contrast Emerson's experience of Nature was typified by sight and vision modified by a very active and keen cerebral insight'.¹¹³ Holmes describes Muir's writings as 'a fusion of Emersonian images, scientific insight, and Muir's own religious faith and fervour'.¹¹⁴

Thoreau, despite being influenced by Transcendentalist thought, encountered Nature directly as Muir did. He sought philosophical understanding of his own existence in Nature. He lived in Walden Woods, outside Concord in Massachusetts for two years because he 'wished to live deliberately, to front only the essential facts of life and see what it had to teach'.¹¹⁵ In a journal entry in 1853 he states, 'if I am overflowing with life, am rich in experience for which I lack expression, then Nature will be my language full of poetry, - all Nature will fable, and every natural phenomenon will be a myth'. 'My head is my hands and my feet',¹¹⁶ he wrote, emphasizing the importance of direct experience in a way which Muir would have appreciated. His words that 'all Nature will fable' indicate that he read the natural world and interpreted his experiences. Thoreau recognized in the sprouting of bean seeds, symbolic representation of moral virtues such as 'sincerity, truth, simplicity, faith, innocence and the like'.¹¹⁷ He

¹¹² William James, "*Varieties of Religious Experience*" (1902) Chapter II line 50 <http://xroads.virginia.edu/~hyper/wjames/ch02.html>. Accessed 11 July 2017.

¹¹³ James Brannon, "Radical Transcendentalism: Emerson, Muir and the Experience of Nature," http://vault.sierraclub.org/john_muir_exhibit/john_muir_newsletter/radical_transcendentalism.aspx. Accessed 6 January 2017.

¹¹⁴ Holmes, *The Young John Muir: An Environmental Biography*, p 239.

¹¹⁵ Henry David Thoreau, "Walden," in *The Norton Anthology of American Literature 1820 - 1865*, ed. Robert S Levine and Arnold Krupat, The Norton Anthology of American Literature (New York, London: W W Norton & Company 2007), p 1920.

¹¹⁶ *Ibid.*, p 1924.

¹¹⁷ *Ibid.*, p 1958.

saw in the melting of a sandbank in spring a representation of continuous cosmic creation and renewal.¹¹⁸ Looking directly to Nature for understanding of one's own existence, finding moral lessons, and understanding the continuity of creation all resonated with the way Muir read Nature only a few of decades later.

Muir knew the works of both Emerson and Thoreau by the late 1880s. As several writers have pointed out, Muir's descriptive language and the imagery he used is 'transcendental' if the term is defined as describing what is beyond the limits of normal human experience or supernatural.¹¹⁹ Muir, however, appeared to retain a view of the separation of 'soul' and 'matter'. He wrote of the 'body' and 'soul' of a mountaineer being 'palpably separate' after they have both 'worked and enjoyed hard'. He described the 'nimble spirit' leaving the 'weary limbs' and wandering 'far away' before returning to join the body.¹²⁰ Muir was unconvinced about the role of the Imagination in revealing the 'Universal Intelligence'. He wrote, 'Science never saw a ghost, nor does it ever look for any, but it sees everywhere the traces of a universe intelligence. The more we know of it the less we associate it with any goblin of our imagination. We discover that the only spirit that haunts our world is the universal intelligence which has created it in harmony with all Nature'.¹²¹ Muir's 'universal intelligence' appears to be his God, despite his adoption of aspects of the Romantic construct of the Imagination.

Reading Nature Scientifically in Yosemite

Shortly after he entered the Sierra Valley in 1869, John Muir wrote, 'The whole landscape showed design, like man's noblest sculptures...Gazing awestricken, I might have left everything for it. Glad, endless work would be mine tracing the forces that have brought forth its features, its rocks and plants and animals and

¹¹⁸ Ibid., pp 2031, 32.

¹¹⁹ Brannon, "Radical Transcendentalism: Emerson, Muir and the Experience of Nature"; Fleck, "John Muir's Transcendental Imagery."; Michael P Branch, "Telling Nature's Story," in *John Muir and the Decentering of the Romantic Self*, ed. Sally M Miller (New York: Peter Lang Publishing, 1999).

¹²⁰ Wolfe, *John of the Mountains. The Unpublished Journals of John Muir*, p 78.

¹²¹ Fleck, "John Muir's Transcendental Imagery," p 139.

its glorious weather'.¹²² Even as the poetic theologian immersed himself in the natural world around him and was experiencing the sacred space into which he had entered, the scientist was reading the signs, the 'divine hieroglyphics' written into the landscape and was keen to interpret these.

Muir was convinced from his first encounters with Yosemite Valley that the 'forces that brought forth its features' were glacial, the movement of huge rivers of heavy, solid ice, which in an earlier ice age had moved slowly down from north of the valley, meeting with the main glacier which filled the Yosemite Valley and had moved in an easterly direction. A hypothesis was beginning to form in his mind, that as the glaciers flowed they dug out and reshaped the landscape. Thousands of years later new landscapes then developed comprising craggy domes, heavily scored, shiny granite pavements, moraines - groups of rocky deposits - and the flower meadows and forests which grew up on the weathered rocks. He first wrote in detail about his scientific observations, not in *My First Summer in the Sierra*, which purports to concentrate on his experiences in the summer of 1869, but as the series of articles published in 1874 and 1875.

According to Linnie Marsh Wolfe,¹²³ by the time he entered Yosemite in 1868 Muir had already read the first, very different scientific hypothesis of the origin of the Yosemite Valley - the 'cataclysmic' theory which had been published in 1865. It was propounded by Professor J D Whitney, who had been appointed California State's Geologist in 1860, and who, with a team of assistants undertook a comprehensive topographical, geological and natural history study of the valley between 1860 and 1865. They published their results in six volumes, the first of which *Geology* (published in 1865), contained Whitney's theory of the origin of the Yosemite Valley. In Whitney's opinion and, he asserted, those of his assistants on the survey, it had been formed as a result of

¹²² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 195.

¹²³ Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 131.

one or more past episodes of subsidence.¹²⁴ Earlier ‘upheavals’ or ‘convulsive movements’ had resulted in the creation of the Sierra mountains and domes. Later upheavals, causing the rocks to split along fissures and subside resulted in the creation of the valley. While there were difficulties with Whitney’s theory, for example smooth granitic rock walls within the valley where there should have been evidence of differential degrees of subsidence, the absence of substantial rock fragments on the floor of the canyon, and evidence of earlier glaciers existing in several areas of Yosemite, Whitney was firmly convinced of the correctness of his theory.¹²⁵ This was further widely publicized by him in 1869 in his *The Yosemite Guide Book* thus bringing the theory to the attention of a wide audience including many tourists who were visiting the valley in the early 1870s. In a letter to Mrs Carr in April 1870 Muir had commented, ‘Whitney says the bottom has fallen out of the rocks here - which I most devoutly disbelieve’.¹²⁶

Muir recalled his studies at the University of Wisconsin at Madison of the theories of Louis Agassiz. In *Etudes Sur Les Glaciers* published between 1870 and 1873, Agassiz described the effects of glaciers in moving boulders, polishing and grooving rock surfaces and excavating canyons and lakes. Professor Ezra Carr, who taught Muir, had himself been exposed to Agassiz’ theories at Harvard and had prepared Muir intellectually for a similar interpretation of Yosemite Valley’s origins.¹²⁷ In an entry dated 11 July 1869 in *My First Summer in the Sierra* Muir recorded finding clues to the origin of Yosemite Valley. He writes that he was 7000 feet above sea level, by Tamarack Creek and observed the bare granite strewn with boulders lying singly, ‘so still and deserted’, which were obviously ‘brought from a distance’ and laid down ‘each in its place’.

They look lonely here, strangers in a strange land...the chips that Nature has made in modelling her landscapes, fashioning the forms of her mountains and valleys. And with what tools were they quarried and carried? On the pavement we find its marks. The most resisting unweathered portion of the surface is scored and striated in a rigidly

¹²⁴ William E Colby, "Introduction to Studies in the Sierra," http://vault.sierraclub.org/john_muir_exhibit/writings/studies_in_the_sierra/. Accessed 21 February 2017.

¹²⁵ Ibid.

¹²⁶ Bade, "John Muir - His Life and Letters and Other Writings," p 115.

¹²⁷ Marsh-Wolfe, *Son of the Wilderness. The Life of John Muir*, p 76.

parallel way, indicating that the region was over swept by a glacier from north-eastward, grinding down the general mass of the mountains, scoring and polishing, producing a strange, raw, wiped appearance, and dropping whatever boulders it chanced to be carrying at the time it was melted at the close of the glacial period. A fine discovery this.¹²⁸

Muir recognized that the boulders he saw were different and must have been brought from elsewhere. He 'read' the marks made by the 'tools' on the underlying granite 'pavement' - striations produced by the heavy moving force which had brought these boulders to a new place and which indicated the direction along which that force had travelled. He commented on landscape around Yosemite Creek in the Yosemite Basin, 'What rich excursions one could make... It's glacial inscriptions and sculptures, how marvelous they seem, how noble the studies they offer!' ¹²⁹ He wrote, 'Both the granite and slates are divided by joints, making them separable into blocks like the stones of an artificial masonry, suggesting the Scripture, 'He hath builded the mountains'. Muir continued to merge his scientific observations and hypotheses with the religious imagery which lay deep in his memory and pervaded his consciousness. God was, for him, a master builder. He wanted to learn 'the meaning of these divine symbols crowded together on this wondrous page'.¹³⁰

Knowledge of Muir's hypothesis of the glacial origin of Yosemite Valley began to emerge publicly. Thérèse Yelverton's novel *Zanita, a Tale of the Yosemite*, published in 1872,¹³¹ described 'Kenmuir', a hero clearly based on Muir. The author had spent time with Muir and had talked with him when she lived in the valley in the spring of 1870. In the novel, in response to an account of the cataclysmic theory, the hero responded with an offer to show the Professor 'how the glaciers have labored and cut and carved, and elaborated until they have wrought out this mighty road'.¹³² Letters written to relatives and friends in 1871 confirm the accounts given in *My First Summer in the Sierra*. Muir wrote to Catherine Merrill on 12 July 1871 of reading, 'last Sabbath week.. one of the most magnificent of God's mountain manuscripts', describing the discovery of

¹²⁸ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 227.

¹²⁹ Ibid., p 230.

¹³⁰ Ibid., p 245.

¹³¹ Therese Yelverton, *Zanita, a Tale of Yosemite* (New York: Hurd and Houghton, 1872).

¹³² Bade, "John Muir - His Life and Letters and Other Writings," p 146.

signs of a dead glacier twelve miles by five miles and its markings on the granite and the moraines it had created.¹³³ To Mrs Carr, on 8 September 1871, he wrote that he had spent ‘the last three years .. ploddingly making observations about the valley’. He wanted to know, ‘How did the Lord make it? What tools did he use? How did he apply them and when?’ He realized that ‘Yosemite is the end of a grand chapter. If you would learn to read it go commence at the beginning’. He described the painstaking work he had been undertaking studying the ‘alphabet’ valleys of the summits, comparing canyons, their rock structures and cleavage, comparative sizes and slopes, reading the ‘grand congregations of rock creations’.¹³⁴ With instruments provided by the President of the Massachusetts Institute of Technology who had visited him a week earlier, he was going to go over all the glacial basins carefully before the snow came and would spend the following winter making drawings and maps. In that letter of the September 1871, he described in detail his plans for a book on the subject of the glacial origins of the Yosemite Valley which he would write,

I will describe each glacier and its tributaries separately, ...the rocks and hills and mountains over which they have flowed, endeavoring to prove that all the various forms which these rocks now have is the necessary result of the ice action in connection with their structure and cleavage, etc. - and also the different kinds of canyons and lake basins and meadows they have made. Then armed with these data, I will come down to Yosemite, where all my ice has come, and prove that each dome and brow and wall, and every grace and spire and brother is the necessary result of the delicately balanced blows of well-directed and combined glaciers against the parent rocks which contained them, only thinly carved and moulded in some instances by the subsequent action of water etc.¹³⁵

Muir, whose background in science had been gained in four years’ study at the University of Madison at Wisconsin, worked from 1869 through the early 1870s, thoroughly, systematically and painstakingly, using a variety of measuring instruments, recording his findings and making illustrative drawings on the spot, in order to provide detailed evidence for his theory of the glacial origin of the Yosemite Valley. He had written to Mrs Carr in October/November 1871 that ‘patient observation and constant brooding above the rocks, lying upon them for

¹³³ Ibid., p 149.

¹³⁴ Ibid., pp 151, 53.

¹³⁵ Ibid., p 152.

years as the ice did, is the way to arrive at the truths which are graven so lavishly upon them'.¹³⁶ Professor J D Whitney, in his 1869 publication *A Guide Book to Yosemite*, denounced the theory of the glacial origin of Yosemite Valley as 'an absurd theory'.¹³⁷ The many scientists and others whom Mrs Carr sent to meet and be guided in Yosemite by Muir, knew of Whitney's theory and challenged Muir, who was able to argue convincingly for his own theory. Among those who met and spent time walking and observing with him was Joseph LeConte, Professor of Geology at the University of California, who was convinced of the accuracy of Muir's claim. Now Professor Louis Agassiz and others who met Muir in the valley and talked and observed with him were convinced of the validity of his glacial theory. Professor Whitney, however refused to accept the glacial theory denouncing Muir as 'a shepherd' and 'guide'.¹³⁸

Muir had the evidence to argue his case convincingly and, for the first time in his life, wrote for publication doing just this. On 5 December 1871, the *New York Tribune* published a letter from John Muir entitled *Yosemite Glaciers*. Two more letters appeared in 1872. In April 1872, he started writing for the *Overland Monthly*, San Francisco. His series of seven detailed and closely argued articles on his glacial theory of the origin of the Yosemite Valley, illustrated with his drawings, entitled *Studies in the Sierra*¹³⁹ was published in serial form in 1874 and 1875 in this periodical. Muir's theory based on his own scientific observation was largely correct. In 1930 François Mathes revealed that glaciation contributed to the creation of Yosemite Valley, but the valley was actually first carved out by 'a series of uplifts combined with stream erosion'. Glaciation subsequently 'broadened and deepened' the valley.¹⁴⁰ There was no evidence of subsidence as postulated by Whitney.

¹³⁶ Ibid., p 153.

¹³⁷ Colby, "Introduction to Studies in the Sierra". in; Muir, "Studies in the Sierra".

¹³⁸ Colby, "Introduction to Studies in the Sierra".

¹³⁹ Muir, "Studies in the Sierra".

¹⁴⁰ Bart O'Brien, "Earthquakes or Snowflakes. The Controversy over the Formation of Yosemite Valley," *The Pacific Historian* 29 (1985): p 39.

Muir - Scientist or Religious Thinker?

Are the works of John Muir considered in this Section the writings of a scientist or those of a religious thinker? Are these perspectives even distinguishable? In *The Mountains of California*, Muir described ongoing creation in the Sierra including the volcanic origins of the northern mountains on whose effects glacial action had created the landscapes in which he lived between 1869 and 1874. This ongoing creation he attributed to an active 'Nature'. In *My First Summer in the Sierra*, he gave a detailed account of his religious interpretation of the natural landscape. In *Studies in the Sierra* he displayed his scientific skills when investigating the origins of Yosemite Valley. In each of his books Muir adopted a different balance between his scientific and his religious perspective.

Studies in the Sierra is the earliest narrative considered here. In it Muir gives a purely scientific account of the evidence for the evidence he collected to support his theory that glaciation accounted from the formation of Yosemite Valley. He had to be scientific in his argument if his theory was to be taken as a serious challenge to that of Whitney. It is of interest that Muir's methodology in this work was hypothetico-deductive - the collection of evidence to support his prior hypothesis. By contrast, Alexander Campbell, founder of the Disciples of Christ had advocated the Baconian 'inductive' methodology, that is the collection of data through observation of nature prior to enunciating a hypothesis. Patricia Roberts argues that in reading nature Muir adopted the method advocated by Alexander Campbell, founder of the Disciples by reading what is written and not being distracted by traditional interpretations, by seeking consistency rather than advocating exceptionalism.¹⁴¹ While this is sometimes true of Muir's methodology, it does not apply to the approach he took when researching the origins of Yosemite Valley.

Muir's inductive approach is evident in the *Mountains of California* in which his method of observation and generalisation is clearer especially in relation to his more creative theological ideas. This is evident in his taxonomic knowledge of

¹⁴¹ Patricia Roberts, "Reading the Writing on Nature's Wall," *ProQuest* 18 (1987): pp 31 - 44.

the flowers and forests of the Sierra, as well as in some of his generalisations, e.g. the 'manifest result of all this wild storm-culture is the glorious perfection we behold; then faith in Nature's forestry is established'.¹⁴² This is inductive rather than deductive. In this book, he was using his scientific background to 'read nature', to understand the origins of the landscape, expressing this in the imagery of the Christian Bible but, simultaneously, incorporating the ideas of Romanticism. It is of interest that Muir, the scientist was up to date in his understanding of the origins of the earth. It was only in the middle decades of the nineteenth century that it was acknowledged that the earth and humankind's existence were not of equal duration and therefore the account for humankind's creation in Genesis could not be accurate.¹⁴³ In *The Mountains of California* John Muir moved seamlessly between a scientific and a spiritual interpretation of creation which was infused with religious language.

My First Summer in the Sierra is reputedly Muir's most popular book. It is also his most overtly spiritual. The content of the book suggests a freedom to be 'theologically' creative which was characteristic of nineteenth century thought. English and American Romanticism reinterpreted the relationship between humankind and Nature. The Christian 'God' was being 'rethought' and 'Nature' was, for some interpreters, taking the place of 'God', partially if not completely. Further, in the intellectual world in which John Muir was writing in the second half of the nineteenth century, the basis for traditional Christian doctrines was being challenged. German scholars questioned the historical accuracy of account of the origin of Christianity given in the New Testament and this perspective had entered English thought. Marian Evans, alias George Eliott, had read Charles Hennel's (1838) *Inquiry into the Origin of Christianity*, and had translated David Strauss' (1835) book *Leben Jesu* opening this area to scrutiny.¹⁴⁴ This new biblical criticism was permeating the English-speaking world, and influencing Unitarians in particular, the tradition to which Emerson gave his allegiance. Two decades later, the publication in 1859 of Charles Darwin's *Origin of Species*, with its scientific evidence for the theory of evolution, 'challenged

¹⁴² Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 397.

¹⁴³ Rudwick, "The Shape and Meaning of Earth History," p 314.

¹⁴⁴ Basil Willey, *Nineteenth Century Studies* (Great Britain: Penguin Books, 1973), pp 217, 28.

many facets of popular Christian Doctrine', according to Hedley Brooke. He includes among these, 'the nature of Biblical authority', 'the historicity of the creation narratives', 'the nature and scope of God's authority in the world', 'the persuasive force of the argument from design' and 'the ultimate ground of moral values'.¹⁴⁵ The accounts given in the two books of 'revelation', the Bible and 'Nature' were not now seen as consistent with each other. The freedom of thought arising on literary and scientific fronts, which spread widely through the English-speaking world, provided a space in which Muir could be creative in his religious thinking, ideas and imagery.

This detailed review of two of John Muir's books shows that Muir's religious insights into Nature dominated his writing, even in a scientific book ostensibly about landscape. It has also provided an insight into Muir's theology and the way in which he interpreted nature in religious terms. Yet his articles, *Studies in the Sierra* illustrate that, when required, Muir, the scientist could write a purely scientific account of his theory of the glacial origin of the Yosemite Valley. In the next chapter, the way in which Muir used his scientific and religious perspectives to argue for the preservation of forests, and of a particular Sierra landscape which San Francisco wanted to develop as a source of water for that city, is examined.

¹⁴⁵ John Hedley Brooke, *Science and Religion* (United Kingdom: Cambridge University Press, 2014), p 383.

Chapter 4: Preaching Preservation

Context

After he married in 1880 John Muir's lifestyle became conservative and conventional.¹ He managed his father-in-law's market gardening enterprise which involved rearing and selling fruit he would have earlier described as products of human rather than nature's creation.² He was seen as the 'laird' of Alhambra, his father-in-law's farm. He had gained a wide reputation as a botanist and geologist. He had made many influential friends and acquaintances in the 1880s, e.g. the botanist Professor Asa Gray (1810 -1888) of Harvard, and the British evolutionist Alfred Russel Wallace (1823 - 1913). He wrote journal articles and became involved in the politics of preservation after he met Robert Underwood Johnston, the associate editor of the New York based 'Century' magazine in 1889.

In this section I examine Muir's public life in the late 1880s and 1890s as a proselytizer for America's wild places, in particular, the leadership role he played in the 'battle' to preserve Yosemite's Hetch Hetchy Valley. In the discussion it is difficult to be always entirely specific about when Muir or others were advocating 'preservation', that is the maintenance of landscapes in their current state, or 'conservation', that is the 'wise' use of the landscape by humankind but with as little damage as possible to its ecological state.

Preserving forests and other wilderness areas

On 5 February 1876, Muir's article, 'God's First Temples. How Shall We Preserve Our Forests' was published in the Sacramento Daily Union.³ The article shared its underlying religious conviction with William Cullen Bryant's poem, 'Forest Hymn'

¹ Muir did travel to Alaska seven times from 1879 and travelled extensively worldwide after 1903.

² Muir, *Nature Writings*, p 598.

³ As referenced in *ibid.*, p 633.

which begins 'The groves were God's first temples'.⁴ In his poem Bryant asked why man should

.... neglect
 God's ancient sanctuaries, and adore
 only among the crowd, and under roofs
 That our frail hands have raised.⁵

The title of the article conveyed Muir's theme of the forest, rather than man-made churches as a place of worship, even as he addressed an ecological problem, that of preservation of forests. Muir, like George Perkins Marsh in 1864,⁶ described the impact of deforestation on the water supply required to irrigate the farms and the flowering pastures which lay on the lower slopes of the Sierra. He drew attention to the ecological balance required if landscapes and people were to survive together. 'Forests', he wrote, 'absorb and hold back the rains and melting snow' and allow them 'to flow gently into fertilising streams'.⁷ Without the forests, the water would drain away rapidly, carrying with it fertile soil and leaving behind an arid desert-like area. While tree felling and fires started by lumbar men contributed to the devastation, Muir reckoned that 90% of the damage was caused by the fires started by shepherds in order to allow the growth of grassy pastures on which to graze their sheep and to provide pathways through the forested land.⁸ Protective measures, he said, were also needed to prevent the loss of important species such as the Sequoia. In the 1870s, Muir was establishing his credentials as a conservationist, revealing the damage that was being done to the natural ecology of the valley by the various industries which had entered it. Humankind's interventions were not being directed towards preserving the natural ecology of the land which God had given. They were not working with God as co-creators.⁹

As a result of the articles he wrote, and his theory of the glacial origin of Yosemite Valley, Muir's reputation as a naturalist and geologist with a deep

⁴ <http://quod.lib.umich.edu/a/amverse/BAD0508.0001.001/1:11?rgn=div1;view=fulltext>.

Accessed 16 December 2016.

⁵ Ibid., ll 17-20.

⁶ See comment by Worster, *A Passion for Nature. The Life of John Muir*, p 353.

⁷ Muir, *Nature Writings*, p 629.

⁸ Ibid., pp 629, 30.

⁹ See e.g. Genesis 2:15 and 1 Corinthians 3:9 in *The Holy Bible Authorized King James Version*

knowledge of the Sierra mountains had spread widely in the United States in the 1880s through his newspaper articles and the visitors he had guided there. These included the geologist Joseph LeConte, the president of the Massachusetts Institute of Technology John D Runkle, and Emerson.¹⁰ At the same time, support for conservation was growing among the intelligentsia as the impact of industrialisation on the natural world was beginning to be appreciated.¹¹ In 1889, Robert Underwood Johnson, associate editor of the widely-read, New York based *Century* magazine, a man with useful social, intellectual and political contacts, visited Muir to try to persuade him to write articles for his magazine and to become a voice for preservation. Johnson was convinced that Muir was the ideal leader and proselytizer for the conservation of America's wild places. In Worster's words, Johnson saw Muir 'as a prophet standing before unsullied nature in a posture of unabashed love'.¹² In 1872 Muir had written to Mrs Carr, 'I wish I were so drunk and Sequoical that I could preach the green brown woods to all the juiceless world, descending from this divine wilderness like a John the Baptist....crying, Repent, for the Kingdom Sequoia is at hand'.¹³ Muir used this biblical image to characterise his own 'prophetic' calling to humankind to repentance for their failure to protect the forests.

With Johnson's encouragement and chivvying, Muir took on the challenge as an advocate for conservation of wild places. Johnson persuaded Muir to write his first book, *The Mountains of California*, published in 1894 and discussed at length in the previous chapter. He commissioned articles from Muir for his magazine. It was Johnson's idea that a nationwide organisation should be founded to support the creation of national parks. Muir became the first president of such a group, the Sierra Club, formed in 1892. Yellowstone National Park had been established in 1872. Together Johnson and Muir took up the challenge of enlisting support for the creation of Yosemite National Park, for the reversion of ownership of Yosemite Valley to the federal government from the State of California, and for more national parks and national forests. Two articles by Muir, 'The Treasures of Yosemite' and 'Features of the Proposed

¹⁰ Worster, *A Passion for Nature. The Life of John Muir*, pp 192, 95, 210-11.

¹¹ *Ibid.*, p 319.

¹² *Ibid.*, p 331.

¹³ Bade, "John Muir - His Life and Letters and Other Writings," p 140.

Yosemite National Park' appeared in *Century* in August and September 1890 respectively.¹⁴ The articles contained Muir and Johnson's plans for Yosemite National Park.

Muir's next book, *Our National Parks*¹⁵ was published in 1901 with Johnson's encouragement, to further their mission. In the preface to the book Muir wrote of his intention, 'to show forth the beauty, grandeur, and all-embracing usefulness of our wild mountain forests reservations and parks' so that people will come and enjoy and protect them, 'so that their *right use* [Muir's term]¹⁶ might be made sure'[my italics].¹⁷ At the head of the first chapter was a verse from the poem by Wolfgang von Goethe 'Wilhelm Meister', translated by Thomas Carlyle, which summarised Muir's philosophy of humankind in the landscape. It begins,

Keep not standing fix'd and rooted
Briskly venture, briskly roam; ¹⁸

This was a poem also revered by Henry David Thoreau, whom Muir admired greatly.¹⁹ In the opening lines of *Our National Parks* Muir used quasi- theological language to make his case.

Thousand of tired, nerve shaken, over civilized people are beginning to find that going to the mountains is going home; that wildness is a necessity, and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life. Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their own little on-goings with those of Nature, to get rid of rust and disease...washing off sins and cobweb cares of the devil's spinning...feeling the life ...of rocks,..panting in whole souled exercise.²⁰

It was immediately clear that Muir's rationale for the creation of national parks was that humanity, exposed to 'over-civilisation' resulting from work patterns

¹⁴ Worster, *A Passion for Nature. The Life of John Muir*, p 315.

¹⁵ See Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 459 - 605.

¹⁶ Muir's used the term 'right use' and probably meant 'appropriate' or 'best' use, that use which in his view balanced and optimised the benefit to man and preservation of the landscape. Muir used the term 'wise use' in the Hetch Hetchy debate discussed later in this chapter.

¹⁷ quoted in Worster, *A Passion for Nature. The Life of John Muir*, p 372.

¹⁸ Johann von Goethe, Thomas Carlyle, and Henry Duff Traill, *Wilhelm Meister's Apprenticeship and Travels* (London: Chapman and Hall, 1824), p 345.

¹⁹ See Henry Fairfield Osborn's comments in his article on John Muir published in Bade, "John Muir - His Life and Letters and Other Writings." P 882

²⁰ Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 459 - 605.

imposed by industrialisation, needed wild places, not only for physical but also for spiritual refreshment, the latter term encompassing Wordsworth's view that in the countryside humankind could recover from the impact of industrialisation in cities.²¹ Exposure to mountains would remove 'sin' and the 'cobweb cares' of the devil. 'Sin', humankind's disruptive impact on the natural world, and the 'devil' were still pre-occupations with Muir, in this instance expressed using religiously infused industrial imagery.

The first chapter of *Our National Parks* included all Muir's familiar themes - the depth of history which landscapes reflected, how the active creative forces of Nature had shaped these, of the 'divine sculpture and architecture...coming to the light of day'.²² He presented an overview of the landscapes of many wilderness areas - the flowers of the Central Valley of California, the Sierra, 'the most beautiful and useful of all the forest reserves',²³ Alaska's 'warm blooded and rejoicing life',²⁴ the forests of the Black Hills Reserve of Dakota, the Rocky Mountains where, for the wanderer, 'thousands of God's wild blessings will search and soak you as if you were a sponge and the big days would go uncounted',²⁵ the Pacific Coast Forests and various other forest reserves. Muir wrote of landscapes which 'go far to keep *Nature's love* visible', that 'speak *Nature's love*'[my italics], another theme of Muir's stretching back to his time in the Sierra in the early 1860s.²⁶

The following chapters contained detailed, extensive and exuberant descriptions of the history and natural history of the four existing national parks and forests - Yellowstone, Yosemite, General Grant and Sequoia. Six of the ten chapters in the book were devoted to Yosemite - the National Park which Muir knew best - its forests, wild gardens, animals and birds. Much of this material had been covered in Muir's articles and brought together in the *Mountains of California*.

²¹ See "Tintern Abbey" in Halmi, *Wordsworth's Poetry and Prose*, p 66 ll 23 - 29.

²² Muir, "Our National Parks," p 460.

²³ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 471.

²⁴ *Ibid.*, p 462.

²⁵ *Ibid.*, p 465.

²⁶ *Ibid.*, p 461.

Muir's already well-rehearsed religious perspectives with respect to Yosemite were evident in the second chapter on Yellowstone, providing a vivid picture of an area whose boiling geysers in icy wastes were in marked contrast to the Sierra.²⁷ He wrote of 'taking a look into a few of the tertiary volumes of the grand geological library' to 'see how God writes history'.²⁸ He described the history which 'God had written in a wonderful set of volumes' in 'books a million years old, well bound, miles in size with full-page illustrations'.²⁹ He recounted the creation process in Yellowstone, graphically, over the following three pages.³⁰ He described the heads of the river valleys as 'laboratories and kitchens, in which amid a thousand retorts and pots we may see Nature (sic) at work as chemist or cook,... cooking...boiling, steaming,..making the most beautiful mud in the world; and distilling the most ethereal essences'.³¹ He described Nature, rather than God in this instance, as 'working with enthusiasm like a man...like a blacksmith... like a carpenter...like a farmer and a gardener... like an artist...ever working towards beauty higher and higher'. This passage moved seamlessly into the spiritual realm continuing with a biblical reference, 'And a multitude of *still small voices* may be heard directing you to look through all this transient shifting show of things called 'substantial' into the truly substantial spiritual world whose forms flesh and wood, rock and water, air and sunshine, only veil and conceal, and to learn that here is heaven and the dwelling place of the angels'[my italics].³² Muir's words about the shifting from the transient to the substantial, directed by 'the still small voices', reflected the influences on him of the Biblical story of Elijah's theophany,³³ as well as Transcendentalism. Muir was pointing to the immanent presence in Nature of the divine. Donald Worster, a widely-read and award-winning biographer of Muir, interprets this inaccurately - as a reference to an other-worldly 'heaven'. He writes, 'Here he seems to dismiss as a mere "show" the nature that he has spent so much time trying to understand while the real world, the world that truly counts, he locates beyond earth in some empyrean realm. That higher world is where God and his fellow spirits live, removed from the impermanence of the western forests, mountains

²⁷ Ibid., pp 473 - 88.

²⁸ Ibid., p 482.

²⁹ Ibid., p 483.

³⁰ Ibid., 483 - 85.

³¹ Ibid., p 476.

³² Ibid., p 488.

³³ *The Holy Bible Authorized King James Version* 1 Kings 19:11-13.

and prairies'.³⁴ Worster also argues that 'little of *Our National Parks* or *The Mountains of California* ventures beyond science into the realm of religion or philosophy' but, as has been shown in the preceding chapter, this is not accurate in the case of the latter book. For Muir the sacred was present throughout the natural world.

The final chapter of *Our National Parks* is entitled 'The American Forests'. This chapter, repeats Muir's themes of the continuous creation by God/Nature of forest landscapes. Combining aesthetic and ecological considerations, he wrote that the forests 'must have been a great delight to God for they were the best he ever planted. The whole continent was a garden'.³⁵ Damage to the forests was done by 'Mere destroyers...tree-killers, wool and mutton men, spreading death and confusion in the fairest groves and gardens ever planted - let the government hasten to cast them out and make an end of them'.³⁶ In this chapter Muir highlighted the report of The National Forestry Commission.³⁷ He asserted, as did the commission, that 'every other civilised nation in the world' has been compelled to care for its forests, citing France, Switzerland, Russia, Japan and India as examples. He concluded the book with these words. 'It took more than three thousand years to make some of the trees in these Western woods - trees that are still standing in perfect strength and beauty, waving and singing in the mighty forests of the Sierra. Through all the wonderful, eventful centuries since Christ's time - and long before that - God has cared for these trees, saved them from drought, disease, avalanches and a thousand straining, levelling tempests and floods; but he cannot save them from fools - only Uncle Sam can do that'.³⁸

With Johnson's encouragement Muir was proselytizing intensively for the preservation of wilderness. His political and scientific arguments continued to be infused with religion. He was using his skills in preaching, and communicating a

³⁴ Worster, *A Passion for Nature. The Life of John Muir*, p 374.

³⁵ Muir, *Nature Writings*, p 701.

³⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 604.

³⁷ The Commission had been formed in 1896 at the request of the Secretary for the Interior to the National Academy of Sciences, for a group to recommend policies for all the public forests in the West. It comprised scientists, including a 'practical forester', Gifford Pinchot. Muir joined the party as an advisor. The commission's recommendations were made in 1897.

³⁸ Gifford, *John Muir. The Eight Wilderness Discovery Books*, pp 604 - 05.

deep conviction of the correctness of his views, methods he had learned in observing his own father. Mark Stoll comments that Muir and his father each 'preached the gospel according to his own lights - for Daniel the Campbellite Gospel, for Muir the gospel of Nature'.³⁹ But this is not strictly true as Muir's father only partially adhered to the Campbellite belief in Nature as a source of revelation. As mentioned earlier he strongly disapproved of his son's interest in nature.⁴⁰

Muir would soon have occasion to press his arguments more directly, towards preservation of a specific place within Yosemite, the Hetch Hetchy Valley. In this case, his perspective would be publicized widely in the United States through all the available media. His views would be exposed to public scrutiny more intensely than had been the case before he met Johnson.

The Battle for Hetch Hetchy

These temple Destroyers, devotees of ravaging commercialism, seem to have a perfect contempt for Nature, and, instead of lifting their eyes to the god of the mountains, lift them to the Almighty Dollar.

Dam Hetch Hetchy! As well dam for watertanks the people's cathedrals and churches, for no holier temple has ever been consecrated in the heart of man.⁴¹

These were John Muir's comments in his book *The Yosemite*,⁴² published in 1912, on a proposal to create a dam in Hetch Hetchy Valley, an area in northern Yosemite which he described as 'one of Nature's rarest and most precious temples'.⁴³ Muir's comments illustrate that for him the valley was a sacred place.

³⁹ Mark R Stoll, "God and John Muir: A Psychological Interpretation of John Muir's Life and Religion," in *John Muir. Life and Work*, ed. Sally M Miller (Albuquerque, United States of America: University of New Mexico Press, 1990), p 73.

⁴⁰ Engberg and Wesling, *John Muir. To Yosemite and Beyond*, pp 10-11.

⁴¹ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 716.

⁴² *Ibid.*, pp 613 - 716

⁴³ John Muir, "The Yosemite,"

https://vault.sierraclub.org/john_muir_exhibit/writings/the_yosemite/chapter_16.aspx. accessed 21 June 2017

In the first decade of the twentieth century, Muir and Robert Underwood Johnson had become the leaders of a campaign to prevent the construction of a dam in Hetch Hetchy Valley. A request to the federal government to do so as early as the 1880s had been turned down. But the earthquake which affected San Francisco in 1906 highlighted the inadequacy of the water supply to the city which was being provided by a private monopoly, the Spring Valley Water Company, with whom the city was finding it hard to negotiate. The city immediately applied again to the federal government for permission to create dams in Lake Eleanor and Lake Hetch Hetchy, both within Yosemite National Park. Of the two proposals, the latter was more favourable to the city as it was cheaper. Federal approval was required to create a dam in the national park. Muir and Johnson set about organising opposition to the proposal to dam Hetch Hetchy, writing articles, letters to senators and other politicians, east coast intellectuals and industrialists. Between the years 1908 and 1913 the debate engaged people throughout the breadth of the United States. Muir and Johnson mobilised support from conservationist groups, including many members of the Sierra Club. The leader of those supporting the building of the dam, was Gifford Pinchot, the chief forester and adviser to the federal government, one whose attitudes were based on the utilitarian principles he had learned as a student of forestry in Europe.⁴⁴

Numerous arguments – political, cultural and religious/spiritual were put forward by both sides. Often it was difficult to define these arguments separately, clearly and unambiguously. Opponents of the dam, including Muir, based their position on one or more of the following: the valley's sacred nature (an argument significant to Muir), its unique aesthetic and spiritual value, the physical and spiritual renewal experienced by those who visited it, that America's national parks should remain in public ownership and be freely accessible to all and not sold to private interests, that the damming of Hetch Hetchy was a money-making scheme demanded by rich capitalists intent on profit, that there were other natural sources of water for San Francisco which, while they might be more expensive, were worth paying for so that the unique

⁴⁴ See John M Meyer, "Gifford Pinchot, John Muir, and the Boundaries of Politics in American Thought," *Polity* 30, no. 2 (Winter) (1997): pp 269 - 74.

natural appearance of the valley could be preserved. Muir wrote of a 'natural beauty hunger,' writing that 'everybody needs beauty as well as bread, places to play in and pray in where nature may heal and cheer and give strength to body and soul alike'.⁴⁵ Proponents of the scheme, while agreeing with some of the arguments of their opponents, for example the beauty of the valley, nonetheless emphasized the utilitarian argument, that present and future generations of the city of San Francisco would benefit from the provision of a water supply.

Gifford Pinchot, the leader of the proponents emphasized the 'greater good' argument which the provision of a water supply represented. But the 'greater good' argument could be variously defined - what 'good', whose 'greater good', how to measure this? Was the physical and spiritual benefit to the few, relatively well-off persons who had the resources to access Hetch Hetchy Valley a lesser 'good'? People on both sides hypothesized about 'God's intentions' in creating the valley - was this to meet a physical, aesthetic or spiritual need? A related but secular approach was to argue about 'wise' use, raising the question as to how 'wise' was to be defined. Worster comments, 'For years Muir had gone along with utilitarian conservation, provided that "wise use" included spiritual and aesthetic values'. To Muir these were 'as important as economic benefits'.⁴⁶ Yet only Muir would have known what he encompassed within his term 'wise use'.

Opponents and proponents could share viewpoints but interpret and weight them differently. Suspicions of the motives of the opposing groups added to the intensity of the debate, proponents being accused of being supporters of private companies while opponents were accused of being the spokespersons of the leisured classes who wanted the valley for the enjoyment of a few, or even of railway entrepreneurs.⁴⁷

⁴⁵ quoted in Nash, *Wilderness and the American Mind*, p 165.

⁴⁶ Worster, *A Passion for Nature. The Life of John Muir*, p 371.

⁴⁷ John Muir had become friendly with Edward Harriman, a railway magnate, whom he believed to be using his wealth to 'get into partnership with nature in doing good'. Ibid., p 413.

Mark Stoll's analysis of the issues highlights the closeness and sometimes overlap of the arguments on the two sides as being between two 'Progressive prophets',⁴⁸ 'two different religious views of nature both tracing their origins back to Puritanism and Calvinism'. He describes the two: 'The first, whose foremost representative was John Muir, derived its strength from the natural-theology and the neo-Platonic search in nature for evidence of the attributes of God and in natural beauty for spiritual renewal'.⁴⁹ The second view, whose spokesman was Gifford Pinchot, combined such Puritan characteristics as moralism, hatred of waste, admiration of utility, denial of selfishness for the common good, and respect for rationality and science'.⁵⁰ It was 'a battle of moral visions'⁵¹ - beauty and the public good versus materialism and private greed', principles on which the two men and their supporters mainly agreed, but interpreted differently.⁵² While Muir and others took the romantic view of the sacred beauty of the landscape, Pinchot and others argued that its beauty would be maintained by creating a mountain lake, building roads and thereby democratising God's beauty, not 'preserving it for the rich'.⁵³ They both agreed that private greed and materialism should not be pursued to the disadvantage of humankind and the destruction and devastation of nature's beauty.

John Muir's argument was predominantly a spiritual and aesthetic one, as shown by the language and imagery he used in the quotations given earlier, likening the mountains to 'cathedrals', referring to 'God's temple' and using the imagery of Jesus casting the money lenders out of the temple, describing mountain parks and reservations as 'fountains of life'. For him the loss of the 'sacred' Hetch Hetchy Valley was the loss of an Eden. He referred to the arguments of the proponents of the dam as 'curiously like those of the devil, devised for the

⁴⁸ A reference to the forerunners of Theodore Roosevelt's Progressive Party which was later founded in 1912.

⁴⁹ The Oxford English Dictionary defines Neoplatonism as 'a philosophical or religious system which emphasizes the distinction between the eternal world accessible to thought and the changing physical world accessible to the senses and combines this with the possibility of union with a supreme being from whom all reality is held to derive. This does describe Muir's view although the nature of Muir's 'supreme' being is difficult to define precisely.

⁵⁰ Mark Stoll, *Protestantism, Capitalism, and Nature in America* (United States of America: University of New Mexico Press Albuquerque, 1997), p 159.

⁵¹ Could these 'visions' have reflected the nineteenth century debate of science (bleak and rational) versus religion (imaginative)?

⁵² Stoll, *Protestantism, Capitalism, and Nature in America*, p 161.

⁵³ *Ibid.*, p 162.

destruction of the first garden - so much of the best Eden fruit going to waste; so much of the best Tuolumne water and Tuolumne scenery going to waste.’⁵⁴ Pinchot did not use religious imagery - his argument was a practical one, the use of the valley for the benefit of humankind. The distinction between *conservation* and *preservation* is very important here. Pinchot, the forester, was a *conservationist* believing in the ‘rational, scientific use of natural resources for the benefit of present and future generations’.⁵⁵ Muir’s position, in the specific case of Hetch Hetchy, was that of *preservation*, retention of that sacred valley intact, that is, in its pristine state. He never acknowledged that humankind had always roamed in and altered the valley, even if not leaving such a devastating footprint as might result if a dam was created.

Political machinations and manoeuvring also entered into the debate as accounts of the controversy make clear.⁵⁶ Muir wrote to Theodore Roosevelt, with whom he had spent three nights camping and talking in Yosemite in 1903, seeking his support. But Roosevelt could not make up his mind as to the appropriate response to the dilemma. Johnson used his many contacts, produced articles and pamphlets for wide distribution, and mobilised the members of the Sierra Club and nature conservation and hiking societies and clubs throughout America to the cause of preserving Hetch Hetchy. The controversy occupied the minds of thousands of Americans. Even within the Sierra Club members were split between the conservationist and preservationist positions. Ultimately the supporters of the dam were victorious. In the Senate in December 1913 the bill was passed by 43 votes to 25 with 29 abstentions. It was signed into law by the president on 19 December 1913.

Many articles and books have been written about the Hetch Hetchy controversy. Stoll identified twelve published analyses and comments that only two were supportive of the creation of the dam.⁵⁷ Nash observes that ‘few senators

⁵⁴ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 715.

⁵⁵ Worster, *A Passion for Nature. The Life of John Muir*, p 155.

⁵⁶ See Nash, *Wilderness and the American Mind*, Chapter 10 pp 161 - 81 , which includes a list of references to the debate on pp 161-2.

⁵⁷ Stoll, *Protestantism, Capitalism, and Nature in America*, p 235 n.49.

supported the dam because they opposed wilderness'.⁵⁸ Stoll's succinct summary is that 'the issues were beauty and the public good versus materialism and private good' commenting 'that both sides were naturally for the first two and against the other two'. His assessment is: 'the complicated battle over the Hetch Hetchy dam, too complex for the easy identification of heroes and villains, symbolizes the ambiguity and ambivalence that have been expressed throughout history in religious doctrine and in people's lives....In America, the image of a renewed Eden, of humanity happy in abundant and harmonious nature, has created conflict between the ideals of capitalist plenty and nature preservation'.⁵⁹ He adds that, 'so thoroughly had rational conservation eclipsed moral and mystical views that their dramatical revival during the last thirty years has appeared to most commentators as something radically new'.⁶⁰ Stoll's implicit characterisation of Muir's views as 'moral and mystical' suggests a perspective which was 'eclipsed' but which he (Stoll) sees as having subsequently re-emerged.

The Hetch Hetchy controversy had some positive outcomes. It demonstrated the complex issues which lay behind conservation dilemmas. It taught conservationists that they must recognize the dilemmas and contradictions which inevitably arise between moral and aesthetic considerations and the power of the scientific and utilitarian arguments. The 'battle' for Hetch Hetchy, involving so many Americans between the years 1908 to 1913, illustrated that whereas earlier generations of Americans had been concerned to 'tame' the wilderness, to take ownership of it, a generation had arisen which, encouraged by Emerson, Thoreau, Muir and others, had found much to love and protect in wild places.⁶¹

In arguing for preservation, John Muir lost the battle for Hetch Hetchy. Muir had in other situations accepted the conservation viewpoint, that nature's resources could sometimes be used, for human activities. Worster gives examples of

⁵⁸ Nash, *Wilderness and the American Mind*.

⁵⁹ Stoll, *Protestantism, Capitalism, and Nature in America*, p 167.

⁶⁰ *Ibid.*, p 169.

⁶¹ Nash, *Wilderness and the American Mind*, p 181.

occasions on which Muir accepted conservation practices in forestry and hunting in national forests.⁶² But such activities should not be intrusive and destructive of the beauty and natural harmony which Muir found in an *extraordinary* place such as Hetch Hetchy.⁶³ As it turned out the promise to maintain the beauty of Hetch Hetchy was not kept nor was that to maintain the water supply in public hands.⁶⁴

It is hard to escape the view that despite the complexity of the issues - religious, spiritual, aesthetic, philosophical, political, in the end the debate was about utilitarian values, water to be provided for all versus physical and spiritual renewal for a few, the latter, a difficult argument to sustain in measurable, economic terms. Meyer advocates 'broadening of the utilitarian approach to incorporate non-economic value', commenting, 'Muir's effort to delineate a space (both geographical and conceptual) within which non-economic values in Nature may be preserved is highly significant'.⁶⁵

The Hetch Hetchy controversy has ensured that Muir is remembered throughout the western world as a conservationist and the preservation/conservation distinction has largely disappeared. Muir's conservation work and his view of humankind's need for the beauty in nature and for its physically and spiritually restorative power continues to be shared by large numbers of his American countrymen and women and by national conservation societies, despite the difficulty in placing a value on these benefits.

⁶² Worster, *A Passion for Nature. The Life of John Muir*, e.g. pp 348, 55.

⁶³ *Ibid.*, p 416.

⁶⁴ Stoll, *Protestantism, Capitalism, and Nature in America*, p 167.

⁶⁵ Meyer, "Gifford Pinchot, John Muir, and the Boundaries of Politics in American Thought," p 284.

Conclusion: John Muir Scientist or Theologian of Nature?

This aim of this thesis has been to demonstrate that Muir's theology of nature is the central pillar of his main books, underpinning and infusing his nature writing. Preceding chapters have examined the development of Muir's theology from his Christian upbringing, his challenges to the religious doctrines of this upbringing and how his theology of nature underlay his scientific writing about the Sierra. Muir was first and foremost a theologian of nature and secondly a scientist but these two perspectives were closely intertwined. He was committed to the preservation of the natural world and opposed to the creation of a dam in Hetch Hetchy Valley. The thesis concludes with a summary of Muir's theology, with its roots in Christianity and the Bible, Romanticism and Science, and considers his continuing relevance in the twenty first century.

The origin of Muir's theology in Christianity is conveyed most strikingly by his use of quotations from the Bible which he had memorised as a child. Nonetheless he was opposed to the way certain Biblical texts had been interpreted by some of his contemporaries. Examples have been provided in earlier chapters and include his criticism of the interpretation of sin, and of humankind's superiority over all other living creatures. He strongly opposed the image of an anthropomorphic God. His 'God' was not the wrathful God of the Old Testament. His God, present in nature, was a God of 'light' and 'love' as in St John's Gospel. Nonetheless Muir referred to the incarnate - human - Jesus infrequently. His 'God' was both transcendent, a creating 'God', and immanent, universally and wholly present in the natural world. Muir's natural world was suffused with 'God'. In his writing 'God' and 'Nature' became almost synonymous. In the natural world, Muir experienced that immanent 'God' with *all* his senses, becoming absorbed into it. Muir wrote of Creation as continuing, when he described an actively creating Nature, '*natura naturans*'.

'Nature' - the natural world of Yosemite - was perceived by Muir as pristine, an existing 'Eden'. As Wordsworth had described this way of 'seeing', Muir was

'half creating' what he perceived.¹ Muir's theology of nature was deeply imbued with the ideas and language of the Romanticism of the arts of the eighteenth century. Romanticism, defined in 'the most abstract terms as representing 'the triumph of the value of imaginative spontaneity, visionary originality, wonder and emotional self-expression over the classical standards of balance, order, restraint and proportion and objectivity' succinctly summarises the romanticism found in Muir's writing.² The romantic Muir found balance and harmony in the natural world. For him, as for English and American romantic writers, Nature was the source of moral guidance.³ To Muir, Nature, unlike humankind, was 'pure' and 'unfallen'.⁴ Humankind's destructive action on the natural world was sinful. Wordsworth and Muir both recognised a powerful spiritual presence in Nature. But whereas Wordsworth rejected his childhood religion, referring not to 'God', but to '...a spirit, that impels/ All thinking things, all objects of all thought, / And rolls through all things',⁵ Muir did not - he 'reimagined' this. Muir respected the American Transcendentalists' recognition of the close affinity between humankind and Nature, but stopped short of the idealism on which Emerson's *Nature* was based.⁶

Muir's appreciation of the natural world was primarily an aesthetic one. His writing incorporates the Romantic aesthetic of the 'sublime' which, to the eighteenth-century mind, described an experience of magnificence and beauty in natural world including feelings of religious awe and fear.⁷ This was often experienced at great heights e.g. at the top of mountains. But the respect and wonder with which Muir experienced Nature does not fit neatly with a definition of 'sublime' which includes the element of fear in the face of awesome beauty.

¹ "Tintern Abbey" in Halimi, *Wordsworth's Poetry and Prose*, p 68 ll 106 -109.

² *Romanticism* in Margaret Drabble, ed. *The Oxford Companion to English Literature*, Sixth ed. (Oxford, New York: Oxford University Press, 2000).

³ Hatch, *The Contemplative John Muir Spiritual Quotations from the Great American Naturalist*, pp 70 'Christ's Sermon on the Mount...is loudly chanted...' quotation from John Muir Papers Reel 39, frame 07035

⁴ quoted by Dennis Williams, "John Muir. Christian Mysticism, and the Spiritual Value of Nature," in *John Muir Life and Work*, ed. Sally M Miller (Albuquerque, USA: University of New Mexico Press, 1990), p 92-3.

⁵ "Tintern Abbey" in Halimi, *Wordsworth's Poetry and Prose*, ll 101 -03.

⁶ 'Idealism' is the view that the only realities in the world, including any 'power' underlying existence are those 'imagined' by the human mind.

⁷ See 'sublime, the' in Drabble, *The Oxford Companion to English Literature*, p 980. which includes an account of the historical origins of the term.

Unlike the fear Wordsworth experienced crossing the Simplon Pass⁸ and the terror of Thoreau on Mount Katahdin,⁹ Muir seemed to experience fear only momentarily when experiencing nature's most awesome wonders, e.g. when climbing Mount Ritter.¹⁰ In these situations, according to his own later accounts, Muir regained his composure very rapidly. While one author attributes the widespread influence of Muir's writing to his use of 'the sublime',¹¹ another, more accurately, writes of Muir's 'domesticated sublime'.¹² Muir's recognition of beauty, harmony and tranquillity in nature led him to reject certain nineteenth century views such as Tennyson's interpretation of evolution as characterised by 'nature red in tooth and claw',¹³ and Ruskin's description of 'mountain glory and mountain gloom',¹⁴ both of which seemed to Muir to imply disharmony and evil in Nature.¹⁵ Yet he accepted Darwin's theory of the place of natural selection in evolution. And while he was critical of Ruskin's reference to 'gloom' present in nature,¹⁶ Gifford argues that when examined closely, Muir and Ruskin's writing have similarities in style, language and vision, that both writers aim 'to find the right relationship for our species (i.e. humans) in the natural world.'¹⁷

Muir was strongly influenced by John Milton's account of 'Eden',¹⁸ a term he frequently used to characterise the landscape of Yosemite, a romantic image

⁸ William Wordsworth, "The Prelude," (1805): Book 6 ll 555 -72.

⁹ See *The Writings of Henry David Thoreau The Maine Woods* at http://www.gutenberg.org/files/42500/42500-h/42500-h.htm#Page_IX . Accessed 25 August 2016.

¹⁰ Gifford, John Muir. *The Eight Wilderness Discovery Books*, pp 320 - 22.

¹¹ Christine Oravec, "John Muir, Yosemite, and the Sublime Response: A Study in the Rhetoric of Preservationism," *Quarterly Journal of Speech* 67, no. 3 (1981).

¹² William Cronon, "The Trouble with Wilderness; or Getting Back to the Wrong Nature," ed. William Cronon, *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton & Co, 1995),

http://www.williamcronon.net/writing/Cronon_Trouble_with_Wilderness_1995.pdf. p 6. Accessed 20 January 2017.

¹³ Lord Tennyson Alfred, "In Memoriam,"

<http://www.theotherpages.org/poems/books/tennyson/tennyson04.html>. LVI stanza 4

¹⁴ John Ruskin, *John Ruskin: The Two Boyhoods, the Slave Ship, the Mountain Gloom, the Mountain Glory, Venice, St. Mark's, Art and Morals, the Mystery of Life, Peace* (1898), pp 33 - 68.

¹⁵ Worster, *A Passion for Nature. The Life of John Muir*, p 207.

¹⁶ Bade, "John Muir - His Life and Letters and Other Writings," pp186 -7.

¹⁷ In the chapter 'Muir's Mode of Reading Ruskin' in Terry Gifford, *Reconnecting with John Muir* (Georgia USA: University of Georgia Press, 2006), pp 75 -85. Gifford argues strongly that both men are 'post-pastoral' writers who aim to direct humankind toward their proper relationship with the natural world; that differences in writing style and personality obscures this similarity.

¹⁸ Milton, *Paradise Lost*, Book IV ll 223-63.

which Stoll has demonstrated pervaded the arts in nineteenth century America.¹⁹ He claims that Milton's 'Eden', described in 'Paradise Lost', influenced the ideas of many Reformed protestants. It is revealed in poetry, e.g. that of William Cullen Bryant (1794 -1878), and in the painting of Thomas Cole (1801-1848), whose works incorporated themes of Eden and of man's sinful impact on it. Stoll also identifies the impact of Milton's poem on landscape gardening, and on the campaign in nineteenth century America for city parks and national parks. The proposal for Central Park in New York in 1848 was supported by William Cullen Bryant. It predated, by decades, the creation of the first national parks, Yellowstone and Yosemite.²⁰ As noted, in defence of Hetch Hetchy Muir had written that the arguments of his opponents 'are curiously like those of the devil, devised for the destruction of the first garden - so much of the very best Eden fruit going to waste'.²¹

For Muir, Yosemite Valley, and its identical twin Hetch Hetchy, were sacred places where his God could be experienced and worshipped. No longer was God to be found in humankind's temples, but in the temples of the 'wilderness'. That Nature is 'sacred' was Muir's most forceful argument for the preservation of the Hetch Hetchy Valley. This 'idealist' element of Muir's 'environmental ethic',²² is what is now defined as a 'deontological' argument for conservation.²³ Some of Muir's opponents may well have shared this perspective, even if 'sacred' for them did not carry his interpretation of 'divinity', but another more suited to late nineteenth century American intellectual society, in which the Christian concept of 'God' was being questioned and replaced. But the most easily apprehended and therefore most powerful argument for the construction of the dam in the rapidly industrialising society was 'utilitarian', or 'consequential', the term now in use.²⁴ Against this, Muir and his allies' utilitarian argument of

¹⁹ Stoll, "Milton in Yosemite: Paradise Lost and the National Parks Idea."

²⁰ The first national parks were Yellowstone Nation Park, created in 1872 and Yosemite National Park in 1890.

²¹ 'Hetch Hetchy Valley' in Muir, *Nature Writings*.p 816

²² The term 'Environmental Ethics' came into use in the 1970s to describe the ethics of human interactions with and impacts upon the natural world and natural systems Robin Attfield, *Environmental Ethics*, Second ed. (polity, 2014), p225.

²³ The two main types of environmental arguments are 'Consequentialism' (including 'utilitarian') - arguments based on moral decision making in terms of foreseeable outcomes and 'deontological' i.e.theories that reject consequentialism. See *ibid.*, pp 223 and 24.

²⁴ *Ibid.*, p 223.

physical and spiritual renewal in Hetch Hetchy, which would accrue only to the wealthy, could not prevail. Meanwhile public and private economic interests which lay behind the debate were concealed by these utilitarian arguments. It seems very likely that in the contemporary world, where economic 'progress', that is, wealth creation for countries and individuals, is in conflict with the need to provide for rapidly growing populations, utilitarian arguments will prevail. This is especially true in the 'developing' world, where millions still live at unacceptably low levels of material existence, But the questions remain - what benefit, how much benefit, for whom and how to value these. And, in the presence of some potential measurable benefit to humankind of these intrusive changes, how much protection is to be given to the natural environment?

John Muir's legacy, through both his science and his theology, is threefold, but the three aspects overlap and interrelate. First, the romantic language and ethereal imagery of his 'theology' can acceptably be made to carry many labels, Christian, pantheist, 'Nature Mysticism,' and can even apparently share ideas and experiences with those of eastern religions, thus satisfying many who reverence the natural world.²⁵ Secondly, shortly after the term 'oecology' was introduced in 1869, Muir was drawing attention to the connectedness of the living and non-living parts of the natural world, summarised in his well-known comment, 'When we try to pick out anything by itself we find it hitched to everything else in the universe'.²⁶ Thirdly, in arguing for preservation, for which he is best known, he drew attention to the need for humankind to find its 'right' place in the natural world. William Cronon argues that the concept of 'wilderness' as a beautiful, awesome and sacred space, a place of refuge, developed only in the last two hundred and fifty years, that it is a 'cultural invention', describing an artificial environment in which humankind has never intervened and of which humankind has never been a part. Humankind has

²⁵ Williams, "John Muir. Christian Mysticism, and the Spiritual Value of Nature."; Brannon, "Radical Transcendentalism: Emerson, Muir and the Experience of Nature"; Michelle L Dwyer, "John Muir and Zen Buddhism," *John Muir Newsletter* 5, no. 2 (1995), <http://scholarlycommons.pacific.edu/jmn/41>; Larry Gates, "The Nature Mysticism of John Muir," http://vault.sierraclub.org/john_muir_exhibit/life/nature_mysticism_gates.aspx. Accessed 21 January 2017.

²⁶ Gifford, *John Muir. The Eight Wilderness Discovery Books*, p 248.

altered the natural world but has not 'created' it.²⁷ It is 'the Other' and demands respect. Gifford's perspective is that Muir's writing is 'post-pastoral' seeking to find a 'right relationship for our species within nature', while Cohen describes it as 'the pathless way'.²⁸ Cronon writes, optimistically, that in environmental debates, humankind needs to learn to 'honor the wild - to remember and acknowledge the autonomy of the Other' which means 'striving for critical self-consciousness. Deep reflection and respect must accompany *each act of use*, and means we must consider the possibility of *non-use*' [my italics], a perspective which Muir's writing and activities for preservation and indeed his position as a 'proto-ecologist' reflect'.²⁹ In such a complex debate, bedevilled by political and economic considerations, one can only respect Muir's determination to stick to his strongly held beliefs. Opposition is always valuable in drawing attention to relevant, if ultimately not overwhelming arguments.

John Muir continues to be held in high regard worldwide in the twenty first century. His major contribution has been to draw attention to the need for man to engage respectfully and appropriately with the natural world. How to do this is the problem. In the Hetch Hetchy debate, Muir and others drew attention to non-utilitarian considerations such as the 'sacredness' and 'beauty' of nature. National preservation societies include the John Muir Trust in Scotland, which works 'to defend wild land, enhance habitats and encourage people of all ages and backgrounds to connect with wild places', and draws attention to the beauty, value and inspiration of nature.³⁰ In the twenty first century the tensions between economic progress and environmental protection are prominent in environmental debates.³¹ The intervention of many who continue to share Muir's position on conservation and are vocal in their defence of the natural landscape is greatly to be valued. However John Muir's remains profoundly important in the twenty first century for his provocative theology of nature

²⁷ Cronon, "The Trouble with Wilderness; or Getting Back to the Wrong Nature," especially pp 1-7.

²⁸ Gifford, *Reconnecting with John Muir*, p 28; Cohen, *The Pathless Way: John Muir and American Wilderness*.

²⁹ Cronon, "The Trouble with Wilderness; or Getting Back to the Wrong Nature," p 20.

³⁰ <https://www.johnmuirtrust.org>. Accessed 13 July 2017.

³¹ Ramesh Jairam, "The Two Cultures Revisited: The Environment-Development Debate in India," *Economic and Political Weekly* 45, no. 42 (2010).

which has been demonstrated in this thesis and which is so often neglected in discussion of his contribution to conservation.

Several books of quotations of Muir's 'theological' comments have been published attesting to an interest in Muir beyond the conservation of natural landscapes. Attempts have been made to identify the sources of his theology of nature. In 1889 Muir described himself to Robert Underwood Johnson as a "poetico-trampo-geologist-botanist and ornith-natural etc. etc. !!!!"³² 'Theologico' does not appear in his description of himself. Nonetheless, this thesis has provided evidence that John Muir was a theologian of nature and that this perspective underpinned his scientific writing. His inventive way of thinking led him to connect science and religion in a way which was not generally characteristic of the nineteenth century.

³² "Letter from John Muir to Robert Underwood Johnson," <http://digitalcollections.pacific.edu/cdm/compoundobject/collection/muirletters/id/13457/rec/19>. Accessed 2 January 2017.

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