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The Role of Education in New England Puritan Society

Introduction

The goal of this work is to present a discussion of the Puritan educational system

at the elementary and university level. To appreciate the role of this system in Puritan

society, various materials will be presented which will assist in understanding the Puritan

worldview. In particular, the Puritan religion had significant intellectual components and

therefore it was believed that, if possible, the congregation should consist of highly

educated individuals. The great interest in learning is one of the remarkable features of

Puritan society. Although the Puritans were interested in learning, their education

eliminated reference to the writers of the Renaissance.

The Puritan Educational System

Those who sailed to New England in 1630 included some men of letters. They

had attended Oxford or Cambridge and were in contact with scholars all over Europe. We

will see however, as we proceed, that the Puritan interest in education was based on a

desire to better understand the organization of the world as their God was unfathomable.

The Puritans thought that through observation of the world, they would gain insight into

God's plan. Their interest in the humanities (including painting, scripture, music, and

dance) was extremely limited. The glories of Western art are mostly related to the

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patronage of the Catholic Church, and we do not look to the Puritans for examples of man's creative spirit.

In 1636, the Puritans founded a college for higher education. No other Commonwealth of the English speaking world had founded colleges so soon after their settlement. (Mexico and Peru did establish universities as early as 1553, but these, the Jesuits founded these universities to train indigenous clergy were extremely wealthy communities at the time). The colonial colleges were the ancestors of most of the colleges and universities of the eastern United States, and New England has a particularly rich heritage reflected in Harvard, Yale, Dartmouth, Princeton, among others, "The founding, and still more the maintaining of Harvard College at a certain degree of excellence through the Puritan century, had a far reaching influence on the intellectual life of the United States." The excellence of the New England colleges and universities is still a feature in the American educational system.

At the time of the founding of Harvard College, there were certain Christian groups represented by Anne Hutchinson, who were hostile to classical learning. They felt that concentration should be on scripture, and not on pagan poets and philosophers. Various fanatics called the universities, "house of lies" that "stink before God with the most loathsome abomination." These individuals were defeated at the polls in 1637 and, in 1638, the first freshman class began their studies at Harvard College. In 1652, under Henry Dumster, the program was lengthened to four years. It is usually thought that the role of Harvard and other colonial colleges was to educate ministers who would take the

Ibid. 27.

¹ Morgan, Edmund, S. The Puritan Family: Religion and Domestic Relations in Seventeenth-Century New England. New York, NY: University Press, 1936, 26.

place of ministers who were Oxford and Cambridge graduates. That was one goal, but another goal was to provide a classical education,

"After God had carried us safe to New England", states the opening paragraph of the first account of Harvard College, "and we had builded our houses, provided necessaries for our livihood, rear'd convenient places for God's worship, and settled the Civil Government, one of the next things we longed for, and looked after, was to advance learning and perpetuate it to posterity, dreading to leave an illiterate ministry to the Churches, when our present Ministries shall lie in the Dust."

Clearly, the goal was to have a well-educated ministry which would continue to preach to informed parishioners.

Harvard provided education in law, philosophy, physics and mathematics. History, languages, and medicine were also of interest, "A religious spirit...and the college laws enjoined all students 'to lay Christ in the bottom, as the only foundation of all sound knowledge and Learning." It was interesting that it was thought that book learning alone was inadequate, while living in a group with other students gave rise to a truly educated person.

Poor young persons who had the intellectual qualifications could receive scholarships and could find other ways to earn money. Students could pay for their expenses at the college by providing grain, meat, livestock, firewood, lumber and live goats. Even boots and shoes were offered in payment of college expenses. In contrast to the situation in England, where the universities were well endowed financially, financing the colonial schools was a significant problem.

Ibid, 30.

Morison, Samuel, Eliot. The Puritan Pronaos: Studies in the Intellectual Life of New England in the Seventeenth Century. New York: University Press, 1936, 29.

It is worth noting that there was a greater proportion of the New England population in college in the 1650s than there is today. New England colleges did train ministers, but they were only half of the student body. All students took courses in six of the traditional seven arts (grammar, logic, rhetoric, arithmetic, geometry and astronomy). They studied the three philosophies: physics, ethics, and natural science. They took courses in Greek, Hebrew and ancient history. Latin was the language of instruction and was taught in grammar school,

"The batchelor's degree was intended to be, and was, a liberal education for the times, having no practical or professional value, equally suitable for a future divine, physician, or ruler. President Oakes addressed one of his graduating classes as 'gentlemen, educated like gentlemen'. It is intended to introduce young men to the best thought and literature of past ages, not to make them receptive to the thought of their own time, yet, Harvard boys began very early to pluck Aristotle's beard, and to welcome the 'neoterics' or exponents of the new experimental philosophy."⁵

Two goals of education in the Puritan society were greater knowledge of God and the teaching of ethical behavior. The students studied Hebrew and Greek, partly because it was thought that Hebrew was the mother of all languages and should be part of a gentleman's education. The students spent one day a week for four years to master Hebrew, Syriac, and Aramaic. A knowledge of Greek was also required. The college library was such that the advanced divinity students were well equipped for Old Testament exegesis,

"One of the college entrance requirements in 1655 was to be able to construe and grammatically to resolve ordinary Greek, as in the Greek Testament, Isocrates, and the minor poets, or such like and the Greek Testament was required reading at least one of the New England grammar schools (the Boston Latin School), perhaps in all."

⁵ Ibid, 40.

⁶ Ibid, 42.

One may note that when faced with a Greek text the students were often provided a Latin translation. Morison ends his chapter on higher education with these words,

"The humanistic tradition, one of the noblest inheritances of the English race, went hand in hand with conquering Puritanism into the cleanings of the New England wilderness. The glory that was Greek shone down a path that the Roman legions had never traced; and 'light-foote Nymphs" played hide-and-seek in the college yard with homespun lads who would pass the remainder of their days ministering to rural communities."

The separation of church and state has remained a traditional characteristic of American society. (This separation was advocated by Roger Williams, whose views were considered to be extreme such that he was expelled to Rhode Island).

While the Puritans demanded that their clergy be well trained, they also required that the laity understand a minister's explanation of doctrine. Massachusetts and Connecticut required that every town that had one hundred families or more should provide free common and grammar school education. It was necessary that the students learn to read. It is important to note that the Puritans did not develop church schools. Of all the English people, those most concerned with education were the Puritans.

At first, children were taught at home by parents or older children. The child started with reading schools which were taught by women (This is important because women were reading school teachers in the Puritan world). Reading instruction was mandated since children not taught to read would become barbarous. The children, who could read and understand the laws of the country, and a society of readers, could create a more perfect society. The children in groups were taught spelling, reading, writing and

⁷ Ibid, 52.

arithmetic. Girls were started in needlework at an early age. The intelligent child went on to writing schools. He was prepared to go on to grammar school at the age of seven or eight. To move on, the student had to develop a facility in Latin and Greek. The reading schools were elementary, with writing and arithmetic taught later. Some children who learned to read were never taught to write,

"It was the custom in the New England schools, following medieval and English practice, to teach children first to read, with a hornbook or primer. Writing and ciphering were begun only after they were able to read the primer or the Bible to satisfaction."

While there were free grammar schools for boys, training for girls stopped at the reading school; however, private schools were available. Girls could find instruction in English, diction, music, dancing, painting, drawing and needlework. Boys could also study bookkeeping, shorthand, dancing, music, and horsemanship.

One of the oldest secondary school in the country was the Boston Latin School opened in 1635. Grammar schools only trained boys and only those who could handle Latin and Greek. The purpose of this education was to achieve knowledge of the classics. There was no education in modern languages, history, or science. There were seven years of college preparation. They started with Latin and went to study Aesop Fables. In the fourth year, they undertook Greek. They read Erasmus, Ovid and Cicero. In the seventh year, they could read Vergil, Horace and Juvenal among others. They studied Latin verse, rhetoric, and Roman history. This education was free of church interference.

At Harvard College, they could study Hebrew which was thought to be useful in understanding the Old Testament,

⁸ Ibid, 82.

"For admission for the freshman class, the student must be interviewed by the President or by a tutor under the President's eye. If the interview, conducted in Latin, terminated successfully, the boy was then assigned a subject for a theme; if the composition won Presidential approval, the boy was entered as a member of the freshman class. At the end of a senior year, the student had to defend a thesis. All elements of college life, reports, and even informal conversations, were to be delivered in Latin. In matters of education, the Puritans were leaders. In order for Puritans to become holy, they needed to read the Scriptures. As the articles of faith of 1549 had proclaimed, "Holy Scripture containeth all things necessary to salvation". "Although reading the Bible did not guarantee conversion, it laid its groundwork, and a good Puritan's duty was to search out scriptural truth for oneself."

Puritan Intellectual Life: Parents and Children in Puritan Society

To understand the role of education, it is important to understand Puritan intellectual life. While piety was central, for the Puritans faith was not enough. The ordinary conception of Puritans as being fanatic and dogmatic needs to be expanded upon. It is clear that Puritans thought learning was essential. They felt that ministers must be educated, and religious persons should not only understand theology, but also science and philosophy. A saint must know as much as possible. Clearly, this was the early effect of early Enlightenment.

We have seen that not only did the Puritans feel that their children should learn to read, the law required that children and apprentices should be taught to read. Mather stated, "If your main concern be to get the Riches of this world for your Children, and leave a *Belly full* of this *World* unto them, it looks very suspiciously, as if you were of yourself the People of *this World*, whose *Portion* is only in *this Life*." As part of the reading requirement, the children were required to learn a catechism. As in other matters, the goal of learning to read had a religious motive. The establishment of reading schools

⁹ Ibid ?

Morgan, Edmund, S. The Puritan Family: Religion and Domestic Relations in Seventeenth Century New England. New York: NY: University Press, 1936, 87.

rested upon the idea that: "One Chief project of that old deluder Satan, is to keep men from the knowledge of Scriptures." 11 The idea was not learning to read, but learning to read the scriptures. Youth were admonished to not let one day pass without not reading some portion of the Word of God. The Puritans thought that salvation was not possible without knowledge, and ignorance of the Scriptures was man's chief enemy. They thought that a blind mind, and dead conscience were companions. Morgan felt that, "the Puritans believed that sanctity ran in families. The parent who enjoyed a covenant of grace could lose the covenant if he did not educate their children properly. Therefore, salvation was the ultimate purpose of education. It was thought that children were born evil and ignorant, that ignorant children were inclined to follow their own evil will. Thus, the Puritan had an extraordinary view of the essentially evil nature of the uneducated child. (Thus, we see Calvinist ideas play an important role in the Pilgrims life). It is worth quoting a poem of Anne Bradstreet which presents her view of childhood,

"Stained from birth with *Adam's* Sinful fact. Thence I began to sin as soon as act:
A perverse will, a love to what's forbid,
A Serpent sting in pleasing face lay hid:
A lying tongue as soon as it could speak,
And fifth Commandment do daily break."¹²

The Puritans believed that original sin was an inescapable fact, and the sooner children were made aware of it, there was greater hope for their salvation.

The Puritans believed in predestination and the absolute sovereignty of God. However, they believed in the extraordinary power of education which could lead the child away from his basic evil Nature, It was the position of the devil that led children to

¹¹ Ibid, 88.

¹² Ibid, 93.

"lude and wild" behavior. It was felt that Adam's fall led to universal, permanent corruption. Piety and education was the recourse of mankind. If the child did not develop good habits, it is unlikely that he would be saved.

Increase Mather thought he had began his life with an evil nature, "The great care of my Godly Parents, was to bring me up in the Nature and the Admonition of the Lord; whence I was kept from many visible outbreaks of Sin, which else I had been Guilty of; and whence it was, that I had many good Impressions of the Spirit of God upon me; even from my Infancy Bringing the child to God, should start early."13 It was never too soon to begin a child's education. Children should have early knowledge since it is easier to train children up in their youth. This was necessary since Satan can begin assaults upon children in their infancy. Children were taught as fast as they could learn. Cotton Mather claimed young Saints would make old angels. The pious parent had to teach the children and show them how to apply their knowledge. The goal was not to develop the child's personality. There was no point in attempting to draw out good qualities, because the child in his nature did not possess such qualities. All good came from the outside. The child was rational and, with discipline, the could overcome their evil nature. The idea was to provide him with good instruction, little by little. When Cotton Mather's children became sick, he would remind them about analogous distempers of their souls. He felt that each time his child would approach him, he should provide him with some useful instruction. The parents had catechisms which summarized the Puritans' system of beliefs. These books had questions and answers and the child was to memorize the answers, "This method of instruction was not designed to give play to the development of individual initiative, since in that religion usually meant heresy. If a child held new ideas

¹³ Ibid, 95.

about doctrine, they were likely to be heretical. Let him therefore memorize his catechism and leave originality to the devil."¹⁴ When teaching children to understand the catechism, they are also taught about their original sin, and the wages of their sin. The child was asked, "Is it not a sad thing to be a sinner? Should you not seek from all things to be saved from your Sins?" Cotton Mather went on to say "Child, will you beg of God that He would preserve you from this Evil and assist you to this Good?"¹⁵

If the child was able to attend Harvard, he would study the liberal arts, but those studies did not qualify him to enter the ministry. While the elementary schools did not teach religious doctrines, the primer available to the children contained phrases such as "In the fall, we sinned All." As we have seen, students studied classics at Harvard College, but they did not see them as in conflict with the Bible. After a while, the children could be taken to church, and upon returning home, the parents would explain the difficult points, and show how the doctrine applied to the child's life.

As was stated above, children were thought to have an evil nature. If doctrine and parental examples were not enough, discipline could be applied. John Elliott in his book, *The Harmony of the Gospels* states, "The gentle rod of the mother, is a very gentle thing; it will break neither bone or skin, yet by the blessing of God with it and upon the wise application of it; it will break the bond that bindeth up corruption in the heart." ¹⁶ In spite of these quotations, it is thought that the Puritan parents did not use corporal punishment to a greater degree than modern parents. It was desired to bring children to holiness by

¹⁴ Ibid, 100.

¹⁵ Ibid, 100.

¹⁶ Ibid, 103.

Cotton Mather's work, Help for Distressed Parents, published in Boston 1695, stated Better Whipt, than Dam n—d. Morgan, Edmund, S. The Puritan Family: Religion and Domestic Relations in Seventeenth-Century New England. New York, NY: Harper & Row, 1944, 103.

kindness. Cotton Mather wrote in his diary, "I would never come to give a child a Blow; except in Case of Obstinacy; or for some great Enormity." The Puritan thought it was better to be whipped than damned, but it was still better to be persuaded.

Parents loved their children, and children loved their parents, but it was believed that each must save his higher love for God. Wise parents were advised to keep a distance between themselves and their children, because familiarity and fondness could breed contempt and irreverence in the children. It was thought if the child acted toward the parent with a proper combination of fear and love, discipline would be easy. As reported in the book, The Puritan Family by Morgan, 107. Anne Bradstreet advised the parent that children had different characteristics and their nature should be taken into consideration. Parents were encouraged to support the better aspects of their children's character. Morgan concludes his chapter on education with the following,

"Here is not disposition to allow the unimpeded development of personality, but at least children were not subjected to a preconceived discipline without reference to their individual needs and capacities. A parent in order to educate his children properly had to know them well, to understand their particular characters, and to treat them accordingly. Granted its purposes and assumption, Puritans education was intelligently planned, and the relationship between parent and child which it envisaged was not one of harshness and soverity [sic] but of tenderness and sympathy." 18

The character of the Puritan ministry was such that we can understand the Puritan emphasis on education. The modern churchgoer would find the Puritan sermons extremely challenging, since the minister would quote biblical verses, look for logical problems, and provide information that might seem relevant. While zeal was important, it had to be regulated with clear understanding. The Puritan understood that the Lord had

Ibid. 105

Ibid, 108.

spoken, but felt it necessary for them to understand the reason underlying the Lord's words. They needed to follow the word of God, but also to understand it, "If we today still insist upon calling Puritanism an absolute authoritarianism we would be much disconcerted by its continual appeal to experience and reason." 19

The Puritan was uncomfortable with the acceptance of the incomprehensible. For some, the Bible could be considered a starting point for the creation of a rational cosmology. It is thought that the Puritan approach tended to lessen the importance of the words of the Bible, and relied more on reason, which was needed to interpret the word.

The Puritan approach contrasted with that of other Protestants and Catholics. In other denominations, one could question the need of ministers to be skilled in the sciences, rhetoric, and logic. The Catholics taught that only the Holy Spirit was needed to know the things of God, and the learning that was so much a part of the Puritan approach was unnecessary. In addition, Catholics felt that reason could be excluded and one that can and should dispense with learning.

In the 1640s, in England, there was religious chaos during the Civil War. Many elements were hostile to universities and the monopoly of religious instruction by the educated. They attempted to separate education from religion and felt that scripture alone was sufficient. These elements and self-appointed preachers thought that the arts, sciences, and languages were anti-Christian, and characterized as filth, froth, dung, and needless for understanding scripture. In Massachusetts, Anne Hutchinson was hostile to scholarship. The Puritans had nothing to do with the anti-rationalism of sects.

Harvard College was never intended to be a theological seminary. To the Puritan mind, there was no conflict with the teaching of the arts and sciences with the purposes of

¹⁹ Ibid, 69.

Christianity, "Referring to the Harvard Charter...we can perceive that instead of being a charter for academic liberism, it was rather a manifesto of orthodoxy against radicals who had contended, or were then contending, that religion and preaching should be taken out of the control of college and professors."²⁰

In reading the writings of the Puritans, one has the sense that they are highly intelligent, and continually striving to find man's mind in God's eyes. It is instructive to read the letters of fathers to sons, written when their sons moved on to college. For example, we may consider a letter of Thomas Shepherd to his son,

"Remember therefore that God looks for and calls for much holiness from you: I had rather see you buried in your Grave, than grow light, loose, wanton, or prophane [sic]. God's secrets [sic] in the holy scriptures which are left to instruct Ministers, are never made known to common and profane [sic] Spirits: therefore, be sure you begin, and end every day wherein you study with Earnest Prayer to God, lamenting after the favor of God, reading some part of the Scriptures daily and setting apart sometime every day [tho but one Quarter of an hour] for meditating on the things of God."²¹

In reading such statements, one is struck by the great sincerity of the writer, and his devotion to his God.

Rev. Shepherd's letter goes on, "Abhorr therefore one hour of idleness as you would be ashamed on one hour of Drunkenness. Look that you lose not your precious time by falling in with Idle Companies, or by growing weary of your studies, or by love of any filthy lust, or by discouragement of heart that you shall never attain to any Excellency of knowledge, or by thinking too well of your self that you have got as much as is needful for you, when you have got as much as your equals in the same year; no verily, the spirit of God will not communicate much to you in a way of Idleness."²²

² Ibid, 716.

²⁰ Ibid, 76.

Miller, Perry & Johnson, Thomas H. The Puritans. A Letter from the Rev. Mr. Thomas Shepherd to his son at his admission onto the College. New York, NY: American Book Company, 1938, 716.

The thoughtfulness of the father's advice is remarkable, and tends to define the spirit of the times. Further advice is to avoid childishness and to be amiable and loving so as to achieve the hearts and honor of fellow scholars. Rev. Shepherd goes on to say:

"Remember now to be watchful against the two great sins of many scholars; the first is youthful lusts, speculative wantonness, and secret filthiness, which God sees in the Dark, and for which God hardens and blinds young men's hearts, his Holy Spirit departing from such, unclean styles. The second is malignancy and secret distaste of Holiness and the power of Godliness and the Professors of it, both these sins you will quickly fall into, unto your own perdition."²³

In reading the writings are certainly of the period and indicate a kind of family intimacy that would not manifest itself in the same way today. From all appearances, it would seem that the type of detailed guidance available to the Puritan adolescent is not usually provided by today's parents. In particular, today, we see that in many colleges, students engage in binge drinking, and become intoxicated with freedom associated with being away from home. The admonitions of the Puritan father to his son have a certain charm for the modern mind and provide a useful window into Puritan society.

Puritans and Science

Contrary to popular opinion, the Puritans were interested in science. But seventeen century science was relatively undeveloped and explained very little. It was suggested that the study of natural things did not lead to true happiness. If possible, the Puritan would welcome the proof of natural law in the universe. He felt that it was necessary to see God's divine purpose. It was felt that man could investigate nature, but his concern in his spiritual condition should dominate. One should not seek knowledge for its own sake.

One who neglects his spiritual condition does harm to his eternal welfare, "Yet, a man is

²³ Ibid, 719.

not heavy and dull in matters and grace, who studies laws of the weather not to rest content with mechanistic solutions, but to behold the workings of God within them, will secure knowledge."²⁴ The study of nature was not dangerous, but only the study of nature in the wrong spirit. Cotton Mather not only supported the study of nature, but felt it to be a duty of all men. It was felt that God could work miracles, but would use ordinary means if he could. God's division of the Red Sea would be considered an exception. It was believed that God worked within the frame of nature, and did not do violence to it in almost all cases. Still, ancient ideas accompanied modern notions. For example, comets were considered a divine portent of disaster, but at the same time, followed the laws of the Copernican system.

God was all powerful, and in rare cases, could violate natural law. However,

"The Newtonian triumph established the concept of a necessary and inviolable system of law which God Himself cannot break even though he created it. All deistic tendencies are perceptible in Puritan writings, though the more central orthodoxy strove to reconcile God's sovereign freedom and the reign of law. Perhaps, the New England Orthodox rationalism is most clearly seen in Cotton Mather's *The Christian Philosopher*. Mather therein attempts to show how divine order manifests itself throughout the phenomenal universe; he sees God as a creating force in the world of nature as well as a Divine Original for man's spirit and mind."²⁵

It is suggested that the well-ordered beauty of nature which rejects God's benevolence is apparent to man through his reason. Miller and Johnson see this attitude as the beginning in America of an "Enlightenment" which was first put forth by Franklin, Paine and Jefferson. The most significant American scientist of the period is thought to be John Winthrop Jr., who lived from 1605 to 1676. He was considered the most versatile figure in America of the seventeenth century. He was a physician who

Miller, Perry & Johnson, Thomas H. The Puritans. New York, NY: American Book Company, 1938.
 Ibid, 733.

explored the composition of plants and minerals. He communicated his results to the Royal Society of London and was the first colonial fellow elected to that Society,

The Puritan preacher emphasized that faith must be made articulate, and not remain a spiritual conviction. The Puritans thought that God's wrath works against those who are zealous without saving knowledge, "Thus, when the range of Puritan thought and writing is passed in review, the impression grows undeniably that though Puritan was a piety, it was at the same time an intellectual system highly elaborated and meticulously worked-out." The Puritan rejected the faith of the papists which was considered to be an ignorant faith, lacking in reason and arguments. The most modest believer should still be able to give reasons for his faith.

As Morison points out, Puritans were commonly thought to be indifferent to science.²⁷ They were concerned with such matters as astrology, demonology, and witchcraft. On the other hand, it has been noted that founders of the Royal Society in England were of a Puritan background. Since the Puritan clerical leaders were highly educated, they showed some interest in science, but the scientific product of the citizens of New England was negligible. When we consider the Royal Society of London, there were eleven members from New England, and seven from other regions of America.

The best scientific work in England went on outside of Oxford and Cambridge. Since the Puritans had little training in mathematics, Harvard College had a very inadequate mathematics program. All the physical, chemical and biological sciences were

Miller, Perry. The New England Mind: Studies in the Seventeenth Century. (Cambridge, Mass: Harvard University Press, 1939, 67

[&]quot;founders of New England had been to Oxford and Cambridge. At that time, sciences were at their lowest ebb. English boys, in 1640, went through several years of grammar school and four years of college without studying any more mathematics than the plain ciphering they had learned at Dame School". Morison, Samuel Eliot. The Puritan Pronaos. New York, NY: New York University Press. 1936, 235.

subsumed under physics, while geometry was considered a practical subject useful for mechanics, "Cambridge University students as late as 1650, studied physics in digests or commentaries on Aristotle's physical books. They were taught as Dante had learned in the thirteenth century, and as John Milton apparently still believed, that universe was composed of four elements; earth, air, fire, and water." ²⁸ In the 1660s and 1670s, Harvard students were beginning to disregard scholastic physics. Old ideas die slowly. Oxford did not have an exponent of the new astronomy of Copernicus, Galileo, and Kepler till about 1650. These new ideas in astronomy were very disturbing, since the old ideas concerning the heavens had strong support. The first generation of college students in New England were taught the Ptolemaic System which had the Earth at the center of all.

"About her atmosphere revolve nine transparent and concentric orbs, the 'crystal spheres' which move in melodious time. In each of the first seven heavens a single planet is embedded, the eight heaven of the fixed stars, the firmament, is thick inlaid with patines of bright gold; the ninth, or *primun mobile*, diaphanous in substance and invisible to human eyes, but giving forth the deepest tone in the music of the spheres, revolves at incredible speed inside the tenth heaven, the immutable empyream. There dwells God, the prime mover, with all the glories and company of heaven and souls of the blessed dead."²⁹

In 1656, a book entitled, "Astronomia Instaurata by Vincent Wing, which provided a popular explanation of the Copernican System, was accepted by the Harvard tutors and students." It was believed that various parts of the bible should not be taken literally if they were in conflict with the modern science. (Rev. John Davenport, famous minister of New Haven, chose not to adopt the new viewpoint). Remarkably, the new viewpoint in astronomy was accepted by the clergy of New England, while it was fought by the clergymen of most other countries.

²⁸ Ibid, 236.

²⁹ Ibid. 238-39.

³⁰ Ibid. 239.

It is worth noting that astrology never gained a foothold at Harvard. In the 17th century, comets were thought to be indicators of coming disasters. Even so, some admitted that comets were subject to mathematical laws and contained materials such as found in stars. An important figure from this period was John Winthrop Jr., who was Governor of Connecticut. He brought with him to New England a large library of scientific books. Fifty-two of these books survive, with thirty-three on medicine, twenty-seven on mathematics and physics, and twelve on witchcraft, astrology and occult lore.

I am of the opinion that Morison and Miller generally leave out the least palatable aspects of Puritanism. However, Morison does mention that Robert Child, who obtained his MD in Padua, and was one of Winthrop's scientific friends, was expelled from Massachusetts in 1647, since he dared to ask for tolerance for Presbyterians.

In English Puritanism, there were two groups who did not agree. These were the Presbyterians and the Congregationalists. The Presbyterians thought that the primitive church was governed by representative assemblies. The Congregationalists, however, felt that they should not have a unified church. In that case, the individual congregation should be a democracy of those committed to full communion. New England was founded by the Congregationalists,

"In its attitude towards love, Puritanism had more in common with Judaism, than Medieval Christianity or Jesuit piety. Puritanism did not hold with asceticism or celibacy. The clergy married young and often; their church offered no monastic retreat for men who were too much troubled by women. Milton's invocation, "Hail Wedded Love" in Paradise Lost (1V. 750) expresses the Puritan's idea very neatly."³¹

Puritans placed much stress on married love and they wished all marriages to be successful. Abstinence was not a virtue, but was in conflict with God's purpose.

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Morison, 9.

Winthrop had many interests including chemistry and astronomy. Another contribution of Winthrop's was to provide a telescope for the English colonies. The secretary of the Royal Society, Henry Oldenburg, urged Winthrop to encourage New England youth to adopt the experimental method rather than to make discoveries by philosophical speculation. However, the college students of that time had no experimental equipment. The telescope provided by Winthrop was used by Thomas Brattle to observe the comet of 1680. (It is interesting to note that Newton mentioned Bratlle's observation), "Hence, our little college telescope, used by a careful intelligent observer, contributed its mite towards helping Newton to test Kepler's three laws, to work out the law of gravitation, and to write the great *Principia*." ³² The advancement of science continued. In 1686, Charles Morton arrived in New England. He was author of a science text book which was largely taken from the Philosophic Transactions of the Royal Society. Morton's work was entitled Natural Philosophy or Conpendium Physical. This work was adopted at Harvard and Yale, and was used until 1725. Morrison points out the impact of works such as Morton's by listing bachelor's commencement theses of 1687, and following years. Theses included:

Heat consists in motion, cold in Rest
The less dense is the cooler, the more dense, the warmer
All motion tends to a straight line
Rarefaction is not augmentation, nor condensation, diminution
Gravity is the attraction force of the Earth
Rays of light are Corpuscular
The magnet acts not by occult power, but by actual effuvia
Sight, hearing, taste, and smell are methods of feeling
Fish breathe by attraction and emission of air so that we do not get on an overly
positive View.

Morison also lists some of the more questionable topics:

³² Ibid, 246.

The nature of cold consists in quiet.
Fluids are those bodies whose tiny particles are motion.
Matter is neither generated nor computed
Diversity of senses depends on diversity of nerves
Variety of sounds depends on diversity of motion
Witches Exist
Witchcraft is effected through an impious compact of men with demons.³³

This improved view of science, was echoed by Nathaniel and Cotton Mather and discussed by Mather in his *Corpuscularion Philosophy*. This reference to the understanding of the nature of matter is reflected in the words of Robert Boyle, who was author of the book, *Usefulness of Experimental Natural Philosophy*. Rather than a plea for materialism, this work reflected the beauty of the universe created by God. The Puritans were of the opinion that the world was planned and ordered by God. However, ideas from medieval theology persisted. That is, God could intervene in the well-ordered universe by creating famine, earthquake, floods, and any other disaster. The number of amateur scientists was very few, with only John Winthrop Jr., Thomas Brattle, and the Mathers, as lonely examples.

Morison states, "Throughout Anglo-America, there was a lamentable lack of curiosity as to fauna and flora, mineralogy, meteorological data, and the manners and customs of the Indians, compared with the interest shown by the French in Canada, and the West Indies, the Dutch in Brazil, and the Spaniards in Mexico and Peru." On the other hand, the English Puritans who came to New England brought civilized life and

³³ Ibid, 260-1.

Ibid. 262 "Matters marveled at what was revealed by the microscope, 'And the Little Things which our Naked Eyes cannot penetrate into, have in them a Greatness not to be seen without Astonishment. By the Assistance of Microscope, have I have seen Animals of which many Hundreds would not Aegual a Grain of Sand. How exquisite, How Stupendous must the Structure of must be!" 262.

Ibid, 263.

learning. The ministers were highly learned and on the whole maintained a receptive attitude toward scientific discovery, "The warfare between science and theology found no battleground in New England, where the clergy were leaders in liberalism and enlightenment, purveyors of new learning to the people." Three important contributions of the Puritans included the college, the public school system, and the Congressional Church. "it was founded largely for the purpose of trying an experiment in Christian living" fueling strong motivations for literary instruction.

The Puritan Worldview

In discussing Puritan education, it is important to understand their worldview. For them, God did not create the world and let it run, but he was continually present to oversee its operation. If God were to look away, the world would return to chaos. The world could not make itself. The continuous presence of matter requires that God directs the world to intelligible ends. The creation of kingdoms, nations, and persons are all God's work, as well as the seasons and the weather.

Puritan beliefs had a very strong element of determinism. One's birth and death, the circumstances of his life, where he would live, sickness and accidents, all were predetermined. What happed in one's life, earthquakes, shipwrecks, accidents, are all manifestations of God's will, but God's will could not be understood by man. God was not bound by any logic that man could discover. It might be questionable whether He was good, but it was clear that he was sovereign, "God doth not visit all alike in the world, whose sins are alike, but picks and chuseth as he sees meet, some to be monuments of the

³⁶ Ibid, 264.

³⁷ Ibid, 5.

soverity [sic], while others are left."³⁸ While God is responsible for nature, man has the task of learning the character of the world using analysis which consists of observation, induction, and experience. Man must reach out and find the wisdom of this world, and not be idle. Man, and the creatures of this world are expressions of God's wisdom and it is man's duty to understand and gain knowledge. He is charged with seeking out the wisdom of God and his creatures.

Basic to every aspect of Puritan thinking, was the knowledge that God was unfathomable. However, the basics for scientific knowledge could be determined by logical analysis. For them, the arts did not represent the awful majesty of God, and man could proceed with scientific investigations of what had taken visible form. The created world is a manifestation of God's wisdom, but is not certainly the whole of God's wisdom.

One particular fact of interest is that the Puritans appear to have had little interest in the Renaissance. Kenneth Clark points out, "The Dark Ages began to wane in the tenth century, particularly with the production of great art." There was a revival of classical learning, and we saw the rise of extraordinary individuals as Michelangelo, and Leonardo Da Vinci. A characteristic of the Renaissance was an exalted view of man, represented, for example, by Michelangelo's giant statue of David. As pointed out by Clarke, the representation of the human form changed dramatically in this period. For some reason, this rise in humanism was of little interest for the Pilgrims, and was not reflected in the curriculum. We can conjecture that in the Puritan mind, Renaissance man suffered from the sin of pride.

³⁸ Ibid, 17.

³⁹ Clark, Kenneth. Civilisation. New York, NY: Harper & Row, 1969, 24.

For the Puritan, art was supposed to represent the divine plan and the divine intentions. The Puritan thought that, "The uses and practices of the arts be identified with what God had provisioned, with His forecast of how the universe would function before He had brought it into being." The Puritan believed that in the mind of God, there was a consistent scheme which was used to model the world. Outside the scheme would lie irrational horrors because everything is made to God's rules. Technology and theology were closely related, and creatures were conceived in the mind of God. Man who is of limited wisdom can discover the connection between things and eternal truths. In the Puritan mind, God has a material idea of all the things that are to be. There is a pattern to the world. Rules are necessary, and without such rules, one has tyranny. On the other hand, piety alone could not always justify the ways of God to man. God had created the world out of sheer love and beauty. The world could be a mirror of his perfection and part of a rational design. One of man's roles was to discover the beauty of God's idea. "Therefore, science is the knowledge of the wisdom of God. Since man cannot involve himself in God's mind, man can see God's mind reflected in things."41

Man could understand something of the mind of God through the study of objects, "Ideas radiate from the divine mind and into the human mind, being filtered through the things like sun beams "coming through a red or blew glass," they are tinctured with the color of the thing, but in the Puritan view, the white radiance of eternity had thus to be stained by the glass of matter if men were ever to apprehend it." When reading such quotes, one might have the feeling that the Puritan worldview might seem reasonable. As

Miller, Perry. The New England Mind: Studies in the Seventeenth Century. Cambridge, Mass: Harvard University Press, 1939, 165.

⁴¹ Ibid, 166. ⁴² Ibid, 169.

was stated above, The Puritans thought that while God's mind could not be read, the beauty and study of nature can give humans an insight into God's plan.

Conclusion

Morison emphasizes that Puritans stressed values other than materialism, and were well-prepared to accept new ideas and participate in the fight for the Rights of Man. Thus, seventeenth century Puritans developed a social and intellectual history that resonates in our society today. We should keep in mind, however, that anyone who objected "vociferously" to the Puritan way of life was quickly expelled from the community.

Morison points out that New England differed from other English colonies since it founded largely as an experiment in Christian living. One cannot deny that the dynamic force in settling New England was a desire of English Puritanism to find a home. They wished to found a new church and state, and a new City of God was their aim. Their goal was to bring the Protestant reformation to its logical conclusion. In their mind, religion should permeate every phase of life. Man's purpose was to glorify God, and to suppress everything that was displeasing to God.

We have seen that Puritan education did not include a discussion of the Renaissance. Having read the literature on Puritans and the Renaissance, it is clear that the Renaissance spirit was opposed to that of Puritans. While the Renaissance glorified man, the Puritans thought that natural man was vile, corrupt, and prone to evil. It was

Morison, Samuel, Eliot. The Puritan Pronaos: Studies in the Intellectual Life of New England in the Seventeenth Century. New York, NY: University Press, 1936, 3.

only with God's assistance could man avoid the fires of hell. Man could find grace through Jesus Christ and the merciful God. We may say that Puritan education may be best understood if we understand the Puritan worldview.

Leyland Ryken, in his book, *Worldy Saints*, lists many charges made against the Puritans, which he claims to be largely untrue. These charges include, the Puritans were against sex, the Puritans never laughed and were opposed to fun, the Puritans wore drab, unfashionable clothes, the Puritans were opposed to sports and recreation, the Puritans were money-grabbing workaholics, who would do anything to get rich, the Puritans were hostile to arts, the Puritans were overly emotional and denigrated reason, Puritans were repelled by the human body, and the physical world. This list continues and contains several more items. In contrast, Ryken ends his first chapter with the following remarks.

The typical Puritan was hardworking, thrifty, serious, moderate, practical in outlook, doctrinaire in religious and political and ecclesiastical developments, argumentative, well educated, and thoroughly familiar with the content of the Bible (Ryken, 20). Ryken claims that the people who did not meet these standards were uncomfortable in the presence of the Puritans, and would attack the Puritans in their writings and speeches.

As in any society with such a dominant, controlling ideology, dissent was a problem in Puritan New England. A dissenter would be in a precarious position, and might be subject to exile or bodily harm. (Examples are, Anne Hutchinson and Roger Williams).

Whether a modern person could tolerate life in a Puritan society would depend very much on their personality. It is possible that the individuals who were attracted to what was ultimately called the Puritan religion were individuals whose personality drew them to the Puritan rigid lifestyle and worldview.

The eventual decline of the Puritan society may be related to the broadening influence of individuals in America who were of different personalities and character. With the rise of the Great Awakening and personalities such as John Edwards and George Whitefield, the character of America's religion changed. The residual influence of the Puritans may be found in the Congregational Church. However, most of the Congregational Churches today may be considered liberal and they fit well into the American lifestyle.

In spite of the limitations of the Puritan society, the Puritans must be given great credit for their interest in education. Their influence on the educational system is still prominent in America today. The other feature that is worth recalling is that our separation of church and state ultimately has its origin in the Puritan social organization.

Bibliography

Clark, Kenneth. Civilisation. New York, NY: Harper & Row, 1969.

Miller, Perry. *The New England Mind: Studies in the Seventeenth Century*. Cambridge, Mass: Harvard University Press, 1939.

Miller, Perry & Johnson, Thomas H. *The Puritans*. A Letter from the Rev. Mr. Thomas Shepherd to his son at his admission onto the College. New York, NY: American Book Company, 1938.

Morgan, Edmund, S. The Puritan Family: Religion and Domestic Relations in Seventeenth-Century New England. New York, NY: Harper & Row, 1944.

Morison, Samuel Eliot. The Puritan Pronaos: Studies in the Intellectual Life of New England in the Seventeenth Century. New York, NY: University Press, 1936.

Ryken, Leyland. Worldly Saints: The Puritans As They Really Were. Grand Rapids, Michigan: Zondervan Publishing, 1986.