A Descriptive / Historical Study of Environmental Factors that Effected Inventive and Innovative Creativity in American Shaker Communities.

Suzanne B. Toomey

First Reader
Parnes

To learn more about the International Center for Studies in Creativity and its educational programs, research, and resources, go to http://creativity.buffalostate.edu/.

Recommended Citation
A DESCRIPTIVE/HISTORICAL STUDY
OF ENVIRONMENTAL FACTORS
THAT AFFECTED INVENTIVE AND
INNOVATIVE CREATIVITY
IN AMERICAN SHAKER COMMUNITIES
1978
SUZANNE B. TOOMEY
A Descriptive/Historical Study of Environmental Factors ThatAffected Inventive and Innovative Creativity In American Shaker Communities

A Thesis Presented to the Faculty of the Interdisciplinary Center for Creative Studies State University of New York College at Buffalo Buffalo, New York

In Partial Fulfillment of the Requirements for the Degree of Master of Science

by

Suzanne B. Toomey

December 1978
The purpose of this study was to examine the literature by and about the Shakers in an effort to identify environmental factors that may have contributed to their ability to be inventors and innovators. The research for this study was carried out in four phases. In phase one primary and secondary sources covering approximately 200 years of Shaker history were examined to collect data about individual Shakers' lives, their religious beliefs and practices, their social and economic structures and their educational practices. In the second phase, profiles of creative individuals and creative societies were compiled and a comparison was made between Shaker societies and the society at large. In phase three an attempt was made to interview the surviving Shakers to determine what effects life in Shaker society had on them. The fourth phase was an attempt to administer to the Shakers the Creative Behavior Disposition Scale in order to determine their behavioral dispositions toward creativity. Because of the large quantity of manuscripts and printed material by and about the Shakers, the 200 years were classified into three periods: the formation stage, 1774-1822, the period of Inspired Manifestation, 1822-1855, and the period of reflection 1860 to the present.
three periods were selected. Observations and informal discussions were made during a ten day visit with the Shakers. 

Results: None of the Shaker women would agree to be interviewed or tested. The bulk of this study is based on the historical data collected. A small portion of the study is devoted to informal discussions with and observations of the Shakers at Sabbathday Lake, Maine in December of 1977. The following environmental factors that may have influenced the Shaker inventiveness and innovativeness have been identified:

1) Hardship of the early struggles.
2) Religious belief system that accepted and welcomed spirit manifestations.
3) Education and preparation in multiple trades and skills.
4) Training of adult members in multiple trades and rotation of work.
5) Communal sharing of concerns, new ideas, new discoveries.
6) The climate of acceptability -- indeed the expectation that each member would devote his or her time and talents in a manner most useful to the community.
7) Material prosperity.
8) Freedom to make decisions about beliefs and about the use of one's time.
9) Recognition and reward within the community and public recognition of major inventions.
10) Adequate workshop space and the opportunity to consult with others inside and outside of the community in the area of expertise.
11) Relief from human toil to give opportunity for the cultivation of the higher qualities of mind.
12) The desire "to improve the inventions of man in order to excel the world in order, union and peace." 1
13) The concept of "Consecrated Labor."
14) Sublimation of the procreative energies.
15) Competent leadership.
16) The principle of progression or expected growth and change.
17) Participation in the three modes of experiencing the numinous element.

A spiral of invention and innovation appears to reconcile apparent opposite influences such that over a two hundred year period diametrically opposed factors seem to be at work at different stages of the social, religious, and economic evolution of the Shakers.

Conclusions: It appears that several environmental factors that affected the Shakers seemed to be opposites; harsh environment and safe non-threatening environment for example. Yet what appears to be contradictory has been reconciled. It may be more appropriate for inventive and innovative persons to be aware of the spiral of invention/innovation and be prepared to deal with the various environmental factors rather than spend energy trying to create the totally safe, hassle-free environment. As for the Shakers so the same may be true for the world at large -- a retreat may be a step forward.

State University of New York
College at Buffalo
Interdisciplinary Center for Creative Studies

A Descriptive/Historical Study of Environmental Factors
That Affected Inventive and Innovative Creativity
In American Shaker Communities

A Thesis in
Creative Studies
by
Suzanne B. Toomey

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

Dates of Approval:

Dec. 7, 1978

Dec. 6, 1978

Dec. 7, 1978

Sidney J. Parnes
Dr. Sidney J. Parnes, Interdisciplinary Center for Creative Studies.

Committee Member

John R. Allen
Committee Member

Dean, Graduate School
ACKNOWLEDGMENT

I would like to acknowledge with gratitude all of those who have advised and helped me in so many ways in my research and writing of this work, especially Dr. Sidney Parnes, and Dr. Ruth Noller of the Creative Studies Center, and Dr. Ann Egan and Dr. John Aiken, my committee members who made my work of greater value to me because of their advisement.

I would like to give special thanks to the Shaker sisters at Sabbathday Lake, for their friendship and hospitality while I worked and lived in their peaceful community, and a special thanks to Sister Mildred for her time and talents and for keeping the fires burning in the stove this past winter. And to Brother Ted for his knowledge of and advice on the manuscripts in the Shaker library at Sabbathday Lake, a special thank you.

I would like to thank Ginny Jakubiak for her help with typing and proofing.

But most of all, thank you Raleigh.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Summary of Shaker Principles</td>
<td>11</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>13</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>13</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>21</td>
</tr>
<tr>
<td>II</td>
<td></td>
</tr>
<tr>
<td>RELATED RESEARCH AND LITERATURE</td>
<td>23</td>
</tr>
<tr>
<td>III</td>
<td></td>
</tr>
<tr>
<td>RESEARCH DESIGN</td>
<td>35</td>
</tr>
<tr>
<td>Description of Data Gathering Tools</td>
<td>36</td>
</tr>
<tr>
<td>Manuscripts and Printed Materials</td>
<td>37</td>
</tr>
<tr>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>RESULTS</td>
<td>40</td>
</tr>
<tr>
<td>Interviews and CBDS</td>
<td>40</td>
</tr>
<tr>
<td>Manuscripts and Printed Sources</td>
<td>41</td>
</tr>
<tr>
<td>Observations and Discussions</td>
<td>79</td>
</tr>
<tr>
<td>V</td>
<td></td>
</tr>
<tr>
<td>SUMMARY AND CONCLUSIONS</td>
<td>86</td>
</tr>
</tbody>
</table>

Appendixes

A. LIST OF SHAKER INVENTIONS | 95
B. PROFILES OF CREATIVE PERSONS | 98
C. EXCERPTS OF DIARIES | 102
D. A DISTINGUISHED CONTEMPORARY'S VIEW | 114

Selected Bibliography | 121
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Spirit Song. Gift to be Simple</td>
<td>46</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Spirit Drawing. From Mother Ann to the Elders</td>
<td>48</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Facsimile Page from <em>Youth's Guide in Zion</em></td>
<td>50</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Invention Innovation Spiral</td>
<td>91</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Background and History. The American Shakers have been studied by the historian, theologian, sociologist and the craftsman. Their inventions have been documented extensively but always as social and economic fact. Little attempt has been made to relate these facts to the growing knowledge about creativity.

This writer became aware of the possible implications of the facts as they relate to creativity when she was director/curator of the Shaker Historical Museum in Shaker Heights, Ohio, during the years 1970-1975. Concurrent involvement with research and studies in the field of creativity caused this writer to begin to look for relationships between Shaker life patterns and factors that influence the development of creativity in people. Patterns began to emerge. It appears that some of the characteristics that describe creative people in general also describe some of the members of the Shaker communities. Furthermore, some of the characteristics that describe societies that foster creative development of its members, also describe Shaker society. Life stories of individual Shakers also bear resemblances to lives of eminent persons who have been identified as creative.

Who are and were these people about whom Richard L. Williams wrote:

...barred from procreation, the Shakers sublimated their
creative energies in a thousand directions and as a result celibacy as well as necessity and ingenuity became a mother of their myriad inventions. 1

The following is a brief history that will give some indication of this writer's growing conviction that we can learn much about creativity from the Shakers.

Why are they called Shakers?

They sat quietly as if in meditation. Then slowly at first they were taken with a mighty trembling under which they would express the indignation of God against all sin. At other times they were affected, under the power of God, with a mighty shaking, and were occasionally exercised in singing, shouting, or walking the floor under the influence of spiritual signs, or swiftly passing and repassing each other like clouds agitated by a mighty wind. 2

Led to America from England in 1774 by Ann Lee, a simple and illiterate daughter of a blacksmith, the Shakers are a quiet and little known source of information about creativity. Members of the United Society of Believers in the Second Appearing of Christ or Believers or Shakers as they are called, produced over one hundred inventions and improvements between the years 1790 and 1900, and made religious, social, and political contributions that mark them as one of the most innovative of communistic experiments in American history. They professed and practiced a religion founded upon Christianity, but unique in the idea of a Mother/Father God principle and derived from this belief the acceptance of the co-equality of men and women. This produced a

1 Richard L. Williams, "The Shakers Now only 12, Observe Their 200th Year," Smithsonian, Vol. 5, No. 6, August, 1974, p. 48.

parallel structure in their governing body, living arrangements, religious meeting, economic ventures, and in fact in every detail of their lives, and even to the final detail of their burial; men were placed in one side of the cemetery and the women were placed in the other side. Aurilia Mace, a Shakeress, commented on the status of women in the Shaker society: "In the Shaker Order, woman has taken her place as an equal with man, by intellectual if not by physical strength." 3

Ann Lee, revered by her followers to be a manifestation of the Christ in the female qualities and form, set the stage for the co-equal but separate patterns and insured that the celibate community would continue to thrive by seeking out and bringing to conversion those men and women capable of leadership.

By 1776, formation into "family" 4 order or groups began. In 1780, Ann Lee and her followers embarked on a proselytizing journey that lasted three years and exposed many New Englanders to a strange new promise of salvation. Some people had tasted these strange delights before during short periods of revival dating back to 1734 and Johnathan Edwards, and to the fire and brimstone preaching of George Whitefield.

In 1779, a revival broke out among the New Light Baptists under the leadership of Joseph Meacham, a lay preacher, and the reverend Samuel Johnson. The frenzied fervor lasted from June until the late fall. There were nightly bouts of exalted preaching, of visions, signs, operations, and

---

3 Aurilia Mace, Diary, Wednesday, January 15, 1898, Sabbathday Lake Library, Poland Spring, Maine.

4 Family order consisted of no more than one hundred men, women and children, living in a common dwelling, men and women in separate sections of the same dwelling.
prophetic utterances; of shouting, screaming, and the falling of men and women as if wounded in battle. 5

In 1780, Joseph Meacham and Calvin Harlow visited the church of the Shakers at Nyskeyuna, New York, for the purpose of searching out the truth to the rumors of miracles, gifts of healing, mysterious signs and signals, rituals and exercises of a people led by a woman with alleged spiritual powers. Meacham challenged Ann Lee on the basis of the stricture of Saint Paul who cautioned women to be silent in church. Ann replied with a simple logic that satisfied Meacham and caused him to convert to Shakerism. Ann replied that in the natural order a man stands first and a woman second in the government of a family, but when the man is gone, the right of government is the responsibility of the woman. Shakers believe that Jesus is the Christ or "annointed" in the male manifestation, Ann is the Christ in the female manifestation, or more correctly as Ann is recorded to have said, "the second appearing is in His church," 6 the Shaker church.

Joseph Meacham's conversion affected the whole congregation of New Light Baptists. Some followed Meacham in conversion to Shakerism. Others were resentful of the Shakers for the disruptive affects they were having on established churches, and families. Often husbands would have the desire to become a Shaker and the wife would not or vice versa. The Shakers did


not encourage unwilling dissolutions, yet it was a problem.

By 1786, two years after the death of Ann Lee, Joseph Meacham began to lay plans for a new order among the Shakers. These plans were the realization of the ideas expressed by Ann Lee to establish a New Jerusalem on earth. The new order was a social innovation that insured the survival of this communal experiment. One of the first acts of the Meacham administration was to appoint Lucy Wright in the female lead which gave substance to the belief that women are co-equal with men.

Meacham patterned the first Shaker family after the Jewish temple, with three courts: an inner court, an inner sacred order; a middle court, a junior order; and an outer court, a gathering order. For the first inner court he accordingly gathered about one hundred of those who 'the greatest faith and abilities in things spiritual,' chiefly unmarried persons of middle age or under - former merchants, tradesmen, mechanics, and other indoor workers - free from debt and family involvements. The second in faith and abilities composed the second court, or family, mostly young men and women used to outdoor work such as farming and teaming. A few children, on the consent of their parents, were also included, for it was Father Joseph's conviction that by living longer after the flesh, elderly people were farther from the kingdom than the young. Those older members such as by age or infirmity, or any other cause, were not able to travel with the young people, he placed in the third or outward court, together with the brethren . . . selected to carry on business relations with the world.\footnote{Andrews, \textit{People Called Shakers}, p. 57.}

In 1793, an unnamed Shaker brother invented a wool carding device and the time of practical industries was set on a course of development that witnessed the cleverness and diversity of a gifted people. The primary purpose of Shaker industry was to meet their own needs and secondly to sell the surplus to the outside world. Women had their place in the economic order as
well as did the men.

As the order grew, industry flowed into new channels, with other colonies following the example set at New Lebanon. Most of the early industries were first developed at this center of influence, notably those having to do with the working of wood, of which there was local abundance. The making of baskets, oval boxes, wire and horsehair sieves, floor mops, and wooden stemmed pipes with clay bowls began about 1810. Chair manufacture expanded soon after the turn of the century, along with other forms of joinery. In response to the need of a rapidly growing order, carpenters, masons, builders, and cabinetmakers were associated at this time in an extensive program of house and furniture construction.

The hand labor of females ran parallel to that of the males but was kept at a discreet distance by moral law. The sisters had their own workshops, or separate rooms on one side of the dwelling. All shared the domestic tasks; housekeeping and cooking, sewing and knitting, washing and ironing. But even before the communities were organized the sisters took over many shop duties: setting card teeth, braiding horsewhips, hatcheling, carding, spinning, weaving, and coloring, making their own clothes and all except the thick for the males.8

One of the most talented women among the Shakers was Tabitha Babbitt.

While watching the operation of making wrought nails, it seemed to her that they might be cut from a sheet of iron rolled to the right thickness. She told her idea to the smith, he tried it, and cut nails were the result. One day she was spinning, she noticed the brethren sawing wood in the old-fashioned way; she observed that one half the motion was lost, and so conceived the idea for a circular saw. She made a tin disc, notched it round the edge, slipped it on the spindle of her wheel, tried it on a piece of shingle, found it would cut, and gave to the world the buzz saw. She invented the double spinning head . . . . At the time of her death in 1858, Tabitha Babbitt was inventing false teeth and had already made a set in wax.9

Women were active in business, making sure they contributed to the economic welfare of the society.

8Andrews, People Called Shakers, pp. 122-123.

9Sears, Gleanings, p. 275.
Early in the last century the sisterhood began several branches of business, preparing for sale fine linen diaper and other kinds of cloth, poplar baskets, men's palm leaf hats, women's bonnets, a variety of cushions, mops, brushes, paper boxes, table mats, work stands, fans, needle-books, emery balls, seed bags, stockings, footings, gloves, and so forth. With the development of the herb industry the sisters were assigned to gathering wild plants and flowers, to cleaning roots, sorting herbs, dressing powders, extracts, and ointments, and printing and pasting labels. In addition, they did the milking, except in wintry weather, and made butter and cheese, apple sauce, dried apples, maple sugar, pickles, catsup, preserves, jellies, and wines of which what could be spared went for sale. They helped in the nurse-shops, and schools. In the dwellings, each sister was assigned to take care of the temporal needs of a brother making, mending, and washing his clothes.10

Not only were the sisters engaged in inventing, the brothers were as well. The following is an excerpt from a monthly journal published by the Shakers:

One of our members, C. Holman, has invented a rotary engine, and another, Sanford Russell, has a steam propeller under way and nearly ready for use. A mania has seemed to take hold of some of the brethren for inventing and being skillful mechanics, and they are very successful.

It is rumored that one of our members is now studying a plan for a flying machine. If such is the case you may expect a visit from him.11

The inventions generated by the Shakers (see Appendix A for a complete list) represent the technical aspects of creativity and a few like the circular saw, tongue and groove machine, metallic ball and socket device for chair legs, the vacuum pan, capsules of codavia, and wrinkle proof cotton and worsted are products of inventive as well as technical creativity. The Shakers were the first agriculturists to venture into new methods

10Andrews, People Called Shakers, p. 123.
of packaging and marketing garden seeds and herbs. They developed their own system of musical notation. Daniel Paterson notes that nearly eight hundred of their manuscripts and song books survive. "They hold a repertory of between eight and ten thousand different tunes, a body of folk songs far outnumbering all the ballads and even the other spirituals known to have originated in America."12

Perhaps one of the most innovative persons to have had an impact on the world and Shakers alike was Ann Lee. Unlettered though she was, she influenced learned men and women to become her followers. She affected significant changes on the American scene by directly or indirectly influencing approximately 16,800 persons to give up personal freedoms, property, and the procreative rights in order to live the Shaker life.

The compilers of testimonies concerning the early Shakers' lives wrote in the introduction:

When they came to see Mother and the Elders, they were filled with wonder and admiration at the great power and operations which they were under and the clear and pointed plainness of their testimony against all sin, and every evil work.

The gifts and operations of the Holy Ghost were evident among them. Shaking, trembling, speaking in tongues, prophesying, and singing melodious songs were gifts with which they seemed continually to be filled; with many other signs and operations, which showed the mighty power of God, and pointed out the particular sins and abominations which those who came to see them had committed. Even the very thoughts of the heart were plainly and particularly pointed out; in so much as that many feared and trembled in their presence.13

---


Often during the early years of Shaker development mobs threatened to burn the buildings and drive these peace-loving people away. In many instances angry mobs carried out their threats and inflicted a variety of atrocities on these pacifists who mutely suffered the tortures inflicted upon them. The Shakers were feared for the unknown effects they might have on towns and villages where they met to worship.

The first act of open persecution took place, after the testimony was opened in America, was in the month of July, 1760. As many people from New Lebanon, Hancock, and other places resorted to Neskayuna to hear the testimony, those Believers who were able found it necessary to take provisions for their support. This served as an occasion to some evil-minded men . . . to accuse these innocent people of being enemies of the country, and to stir up those in authority to persecute them.14

Finally there is the aspect of Shakerism — spiritualism and a whole range of psychic phenomena that are spoken of in hushed tones, hushed out of reverence or fear of the unexplainable and the unknown. The visionary aspect that characterizes the earliest influences on a small group of dissenting Quakers while they were still in England resulted in a new synthesis that became known as Shakerism. Phenomenological manifestations have always been significant to the Shakers. Accounts of spirit visits abound in Shaker writings, Shakers conversing with spirits and receiving spiritual gifts in the form of new hymns, messages in prose and verse, special drawings communicated from spirits through the hands of Shaker mediums, prophecies, warnings, and even the inspirations leading to designs and inventions.

---

14Testimonies, p. 71.
Aurilia Mace wrote of the time of the manifestations. She was there during "... the noisy shaking and turning, and quaking of the olden times, during meetings that had a feeling past words to describe."\textsuperscript{15}

At the time of this writing, there are ten Shaker women living in two Shaker communities: Sabbathday Lake, Maine, and Canterbury, New Hampshire. During the intervening years between their timid arrival in America in 1774, and their current struggle to survive in 1978, there took place a growth and change process that was in fact a social evolution. From simple unorganized beginnings, the Shakers developed into a well ordered, agriculturally based commune where men, women, and children, living in separate but equal circumstances, divided labor by talent and competencies so as to be as self-sufficient as the times would allow. During pre-Civil War times the Shakers developed an agricultural proficiency and became known for their animal husbandry, horticultural and herbal knowledge. During these years, too, the Shakers saw their villages expand to include spacious communal dwellings, barns, workshops, a school, and a meeting house in each of their nineteen communities.

Labor flowed naturally into those channels where it could be most effectively utilized. If a brother had experience in, or aptitude for, a certain trade, he usually devoted the major part of his time to that work, and if qualified, he assumed responsibility for its direction. At New Lebanon, for example, Henry Markham was at one time head of the cooper shop, Benjamin Bruce and Benjamin Lyon were chief machinists, Garret Lawrence was leading herbalist, and Henry DeWitt was the director of the reel business.

\textsuperscript{15}Mace, Diary, Saturday, January 11, 1898.
The broom industry at Watervliet was managed by Theodore Bates. The master builder of eastern meeting houses was Moses Johnson of Enfield (N.H.). Thomas Corbett of Canterbury, an experienced botanist, was placed in charge of that department in his community. Sometimes the shop would be operated by a single individual, but if there were others, the foreman worked along on the same level with his associates. If he were a 'caretaker' of boys, inducting them as apprentices into the art and mystery of an occupation, supervision took a kindly paternalistic form. Each shop was independent keeping its own accounts.

After the Civil War, the Shaker villages began to change and develop toward more industrial patterns so as to compete with outside markets. As America changed, so too the Shakers changed. Outside influences began to be felt in the Shaker villages. Some members found the quiet life unsatisfying. More and more members began to leave the well-ordered life for the excitement of a developing America.

Summary. The following is a brief summary of the "Practical Principles of Shakerism."

1st. Purity in mind and body, including a virgin life, as exemplified and inculcated by Jesus Christ, as the way that leads to God.

2nd. Honesty and integrity in all their words and dealings; according to the precept of the Savior, "As ye would that men should do to you, do ye even so to them."

3rd. Humanity and kindness to both friend and foe. "Charity never faillth. Love is the fulfilling law. Overcome evil with good." This rule comprehends the proper conduct towards all the animal creation.

4th. To be diligent in business serving the Lord. All labor with their hands, according to their strength and abilities; all are industrious, but not slavish.

5th. To use prudence, economy, temperance, and frugality.

16Andrews, People Called Shakers, p. 108.
but not parsimony; agreeable to the apostolic injunctions, "Let your moderation be known to all."

6th. To keep clear of debt. "Owe no man anything but love and goodwill."

7th. The suitable education of children, in scriptural and other useful knowledge and science. Their schools are acknowledged, by the District Superintendents, to be at least equal to any country schools in the states where they are located.

8th. A united interest in all things is their general order but none are required to come to it, except as a matter of free choice; for this order is not a principle; but is the result of mutual love and unity of spirits; and cannot be supported where the selfish relations of husband, wife and children exist. This order is the greatest and clearest demonstration of practical love.

9th. Suitable employment and exercise to be provided for all according to their genius and circumstances. Their general employments are agricultural, horticultural, and mechanical arts. Thus all may be busy, peaceable, and happy.

10th. All are suitably provided for, in health, sickness, and old age; all being equally of the one "household of faith." And, from a comparison of statistics, it is evident that, on an average, the health and longevity of the members fully equal that of the individuals of any community of which we have any account.17

In 1972, Eldress Birtha Lindsay, elderess at Canterbury, New Hampshire, and Eldress Gertrude Soul formerly of Sabbathday Lake, Maine, now of Canterbury commented that the community should not accept new converts. This decision was taken because these women felt that people living in the twentieth century America would no longer be able to accept the rigors of Shakerism.18


However, Sister Mildred Barker and the remaining sisters at Sabbathday Lake, Maine, who have dissented from this decision, have raised doubts about the wisdom of the decision because of a renewed interest in Shakerism as a viable alternative life style for today. For the Shakers in Maine, therefore, the question of their survival is still open and unanswered. In a letter to this writer dated 9 October 1973, Sister Mildred Barker stated, ". . . the Shakers in Maine have always maintained that the door of the church should remain open to any who wish to apply."

Statement of the Problem. The Shakers provide a unique opportunity for the researcher to explore creativity. Individual members of the community were known to be inventors while other members were known to be responsible for innovations in the social, economic, religious, and political aspects of the Shaker system. The chief question this researcher is asking is what are the environmental characteristics and factors that have affected the creativity of the Shakers?

There are two aspects to this question. One aspect relates to Shakers as individuals. The second aspect relates to the Shaker society as an element of or sub unit of our larger society but with some very different and unique characteristics. This study will attempt to identify the environmental factors that influenced both the individual members of the Shaker society and the factors affecting the society itself.

Definition of Terms. This study will be concerned with the following elements: the Shakers, creativity, environment, invention, innovation, prototaxic, parataxic, and syntactic modes, unstress-ing, and numinous element. Each of these terms is defined as
The following:

The Shakers. The Shakers will be defined as those who are formally a part of and adhere to the principles contained in the following tract published by the Shakers and distributed to interested enquirers.

The American Shakers

A Celibate, Religious Community

Coeval with the American Republic First Shaker Family formed at Watervliet, N.Y. 1776; First Organized Shaker Community established at New Lebanon, N.Y., 1778.

Founder, Ann Lee, of Manchester, England (1736-1784). In religious revival of the 17th century arose the "Shaking Quakers" (1774). Nine persons from Manchester and Bolton emigrated in May, 1774, for the purpose of founding a Shaker church in America. Eight remained faithful. They were Ann Lee, William Lee, James Whittacker, John Hocknell, James Shepherd, James Partington, Mary Partington, Nancy Lee.

From Ann Lee's Teachings

Basic principles of the Shaker Order: Purity of life, Peace, Justice, Love.

Expressed in celibate life, Non-Resistance, Community of Goods, Universal Brotherhood, held by us to be the Divine Order of Society.

Resultant Beliefs and Practices

Held as Ideals to be Attained in the Individual and Society,
Equality of the sexes in all departments of life.
Equality of Labor - all working for each, and each for all.
Equality of Property - no rich, no poor; Industrial Freedom. Consecrated Labor; Dedicated Wealth; A United Inheritance.
Each using according to his need.
Each enjoying according to capacity.
Freedom of Speech; Toleration in Thought and Religion.
Often persecuted, Shakers have never been known to persecute. Abolition of all Slavery - Chattel, Wage, Habit, Passion, Poverty, Disease, Temperance in all things.
Justice and Kindness to all living things.
Practical Benevolence - "Thou shalt love thy neighbor as thyself."

True Democracy; Real Fraternity; Practical Living of the Golden Rule.

Religious Ideals and Worship

All life and activity animated by Christian Love is Worship. Shakers adore God as the Almighty Creator, Fountain of all Good, Life, Light, Truth, and Love. The One Eternal Father/Mother.

We recognize the Christ Spirit, the expression of Deity, first manifested in its fullness in Jesus of Nazareth. We also regard Ann Lee as the first to receive in this latter day the interior realization that the same Divine Spirit which was in Jesus might dwell within the consciousness of any man, woman or child. All in whom the Christ consciousness awakens are Sons and Daughters of God. Spiritual man has, as his divine prerogative and highest destiny, to live in clear conception of and in active harmony with the Highest God. The Life of the Spirit, not the form of the expression, is essential.

Practical Issues

Beautiful, comfortable Community homes, in each a Christ Family. Daily manual labor for all according to strength and ability. "Hands to Work and Hearts to God" (Ann Lee) Shaker Motto.

Opportunity for intellectual and artistic development, within the necessary limits prescribed by the common good.
Sanitation, Health, Longevity.
Simplicity in dress, speech, and manner.
Purity in thought, speech, and personal habits.
Freedom from debt, worry, and competition.

Government

No Government without a God; No Body without a head. The head of the Shaker Order is Christ. The visible Human representative is vested in a Dual Order of Leaders.

Spiritual Leaders of both sexes; A Ministry over Societies; Elders over Families. Temporal leaders of both sexes, Trustees, Deacons, and Caretakers in charge of Business and Industrial interests.
The Inner Life

According to Shaker Faith, it is twofold, embracing Repentance – confessing and forsaking all sin; Regeneration the growth and unfolding in the individual of the Christ Spirit, through living according to the teachings and practices of Jesus Christ. As opposed to the common life of human generation and gratification, this is held to be the Resurrection Life.

Physical development, mental growth and spiritual unfoldment form the only rational basis for harmonious and happy existence; self-denial, the cornerstone of the structure. The truths inherent in Shakerism are the underlying truths of God life in all ages, and the mission of the Shaker is to unfold and demonstrate these truths.19

Creativity - What is creativity? There seem to be as many answers to this question as there are persons willing to respond. Scientists, artists, technologists, businessmen, managers, doctors, theologians, educators, psychologists, and parapsychologists have all contributed to the definition. All seem to agree that the creative act results in a product that is new or original or different from what has been done before. Some add the element of usefulness to that of novelty, arguing that otherwise any product or idea no matter how absurdly grotesque could be labeled creative. However, this controversy, like others surrounding the study of creativity, has not been settled and will not be determined here.

This writer has chosen Irving Taylor's definition of creativity because he conceptualizes the creative process as a system uniting the person with his or her environment and with

the creative product. Taylor writes:

The creative process is essentially one of transformation which involves both perception and communication. It is a process in which the individual is exposed to both the external situation and internal experiences and transforms these into creative expressions, i.e., problems are altered into fruitful forms that allow for solution. The resulting creative outcome, or creative product, can be characterized as generative.20

By generative Taylor means basic or underlying, or that which generates other outcomes.

By defining creativity as a system, Taylor reunites the person with his environment rather than studying the creative person alone or studying the environment in isolation. What follows is a comprehensive definition of the system as defined by Taylor.

The creative person is identified by specific dispositional styles, levels, states, or life styles which involve different psychological processes. Thus, Taylor distinguishes between the creativity of Einstein, Picasso, Louis Armstrong, Edison, Stradivarius, Freud, and the child exploring artistic materials to produce a painting or sculpture. The creative dispositions identified by Taylor are the following:

Expressive Creativity. This style is fundamental and characterized by spontaneity and freedom. It is not necessarily related to skills or the quality of the product. Spontaneous drawings and children’s speech improvisations are examples of Expressive Creativity, and Louis Armstrong would be an example of an expressively creative musician.

---

Technical Creativity. This style is characterized by proficiency in creating products and is essentially at the technical production level. The emphasis is on skill at the expense of expressive spontaneity. It is not concerned with novelty, although it does involve the achievement of a new level of proficiency by the individual. The technical level of creativity stems from the satisfaction in proficient, productive achievement, and the resultant desire to obtain the necessary skills to produce objects showing mastery over some portion of the environment. Stradivarius is an excellent example of a technically creative person.

Inventive Creativity. The inventive level is characterized by a display of ingenuity with materials. It involves insight into unusual combinatory relationships between things previously separated, for the purpose of solving old problems in new ways. Creativity at the inventive level does not result in new basic ideas but in new uses of old parts and new ways of seeing old things. Edison exemplifies inventive creativity.

Innovative Creativity. At the innovative level basic assumptions or principles are understood so that modifications through alternative approaches is possible. Innovative Creativity is dependent upon the ability to penetrate and understand basic foundational principles and is exemplified by those innovators who are followers of established schools of thought. Jung, for example, innovated on Freudian psychology.

Emergent Creativity. The most original form of creativity is emergent, exemplified by Einstein, Marx, Darwin, and Freud. At the emergentive level an entirely new principle or assumption emerges at a most fundamental and abstract experiences and from this produce something that is quite different and discontinuous with the Zeitgeist. Emergentive creating is largely individualistic, manifesting itself in highly generative insights.21

Taylor elaborates further by describing three styles of creativity: the initiator, the developer and the applier. He terms these creative styles "endogenous, epigenous and exogenous."22

Environment. By environment we mean "all the conditions, circumstances and influences surrounding and affecting the development of an organism or group of organisms."23

21Taylor, Creative Transactualization, p. 7.
22Ibid.
environmental conditions of this paper's concern are what Taylor identifies as the human environments including the "personal environment, organizational environment, social environment and cultural environment." 24

Invention. We will use Webster's definition of invention, that is, "something originated by experiment, a new device or contrivance devised for the first time." 25 Jacques Hadamard adds to the definition by equating discovery with invention. He says that invention "takes place by combining ideas." 26

Innovation. Webster defines innovation as "something newly introduced, a new method, custom, device, or change in the way of doing things." 27

Numinous Element. Because we will be venturing into the area of phenomenology, it is necessary to take some stand on the meaning that, in the opinion of this writer, matches the understanding that Shakers had of the spiritualist influences in their lives. John Gowan uses the term numinous element because it is a concept expressed with two words that do not have affective loadings that tarnish the understanding.

The numinous element has had many names throughout history, often some aspect of the Deity; Jung identified it as the "collective unconscious;" we have called it in earlier writings the collective preconscious, and the Spirit of Man. . . . It is perhaps best regarded as a primal vis or force, . . . or giant computer, . . . having access to all knowledge, intelligence, and power, but accessible to each of us.

24Taylor, Creative Transactulization, p. 17.
25Webster's, s. v. "invention."
27Webster's, s. v. "innovation."
under the proper conditions.  

Rudolf Otto is cited by Gowan and given the credit for first using the words numinous element. Otto says:

... it is a special term to stand for the hold, minus the moral factor, ... and minus its rational aspect altogether... It may burst in sudden eruption up from the depths of the soul with spasms and convulsions or lead to the strangest excitement, to intoxicated frenzy, to transport, and to ecstasy.  

Prototaxic. Gowan defines prototaxic as:

an experience (of the numinous) received somatically. It produces spectacular liberation from the ordinary laws of physics, from time, and from selfhood, but at the loss of conscious cognition and memorability and the outlets of psychic energy at the kinesihetic level instead of at an aesthetic or cognitive level. 

Parataxic. The second mode is defined by Gowan as:

... an experience (of the numinous) received as images (as in art) ... The parataxic solution offers a bridge between prototaxic and syntactic, containing some elements of both. It's highest outlet is an art, where it offers an aesthetic ASC altered state of consciousness as a temporary freeing of the artist from physics, from time, and from selfhood, ... He is a channel rather than the author of the art. 

Syntaxic. The third mode is defined by Gowan as:

... an experience (of the numinous) received cognitively with full consciousness. It is a state where full psychedelic powers (preconscious power opened up for conscious use) is obtained, orthocognition (the first step in conscious control of the generalized preconsciousness) is established, and the juncture of the conscious mind and the numinous element, which presents itself as the collective preconscious brings not only creativity and serendipity, but literally the

---


29 Ibid.

30 Ibid.

31 Ibid.
positive control of all aspects of man's self-concept from body image outward to complete altruism. 32

Unstressing. Gowan defines unstressing as:

. . . the discharge of psychic tension which is caused by the juncture of the conscious ego and the numinous element . . . . The overwhelming quality of this juncture usually produces some dissociation which can be relieved by a discipline such as a religious, artistic, creative, or meditational procedure. . . . The psychic tension must be expressed in some outlet, "(dancing, shaking, glossolalia, ritual, art, creativity, and healing). 33

Significance of the Study. By examining a select portion of a population such as the Shakers, it is expected that evidence that will be uncovered may be useful for further research about environmental factors that influence creative development of individuals and societies. It may be the first time that a communal group, one that has existed in America for over 200 years, has been studied in this way. The nature of the Shaker way of life makes it ideal for study mainly because the Shaker rules and disciplined development made the influences controllable to a degree, and therefore, it is expected that there might be fewer random factors, fewer unknowns in the complex mixture of factors that affect human development.

This paper will not settle any controversies about what makes creative persons or societies work. What this paper may accomplish is to provide additional data that will help us to know what kinds of environments enhance creativity. It is expected that certain theories will be further supported by

---

32 Gowan, Trance, Art and Creativity, pp. 380, 381.
33 Ibid.
data collected in this study, thereby strengthening the case for or against educational and management practices related to the design of environments that will encourage creative development in people.
CHAPTER II

RELATED RESEARCH AND LITERATURE

Trying to discover what makes creative people creative is an area of research and discovery fraught with controversy and seeming contradiction. It is fairly well accepted that all people have creative potential. In fact, creative problem solving courses offered in schools are predicated on this premise. It is also agreed that some people are more creative than others and a few have even achieved public acclaim because of significantly valuable product and process contributions.

Theories of creativity cover a range encompassing inspiration, sublimation, compensation, restitution for destructive impulses, regression in the service of the ego, structure of the intellect to self-actualization.

Opinions differ as to why creative development in people is variable. Salvatore Maddi and Rollo May have hit upon one of the issues that causes problems. The creative behavior of the publicly acclaimed artist, poet, or scientist is lumped together with the behavior of the person with the "ordinary garden variety imaginativeness." 34

---

Maddi makes a distinction between frail acts of a person who must have a protective environment, free of criticism, opposition, and disapproval and the great figures who persevered in the face of social constraint and suffering, conflict, alienation, and persecution. He points out that:

If a person needs such unantagonistic environments to enter into creative endeavor, "he has little or no chance of doing anything importantly new and useful." 35

Rollo May points out that much research has missed the mark when he says:

Essentially we have come up with truisms or irrelevancies at which artists and poets smile and about which they say "Interesting yes, but that's not what goes on within me in the creative act." 36

J.B. Calhoun proposes that:

... when weaker groups of a species are excluded from former terrain, they search for a new opportunity for reestablishing the former way of life. In so doing they may be forced to adapt to some unanticipated circumstances. The strong remain where few crises demand change and adaptation - they remain firmly traditional. The week must become creative to survive. 37

Persecution in both England and in the North American colonies affected the Shakers' social formation into agricultural communes in wilderness areas. These hardships also affected the creative development of the Shakers.

---

35 Maddi, "Creativity is Strenuous" p. 140.


Ann Lee and some of her followers were put into prison in Albany, New York. Ann was transferred to Poughkeepsie until Governor Clinton was informed of her imprisonment without evidence or trial and ordered her release.

Thus ended the only imprisonment that... Mother suffered in America; an imprisonment which though intended to suppress the work of God in this country, was by the over- ruling hand of Divine Providence, made the occasion of the most extensive circulation of the truth and laid the foundation for the greatest ingathering of souls of any event that had ever yet taken place.  

Carl Rogers in an article, "Toward a Theory of Creativity," puts these events into perspective when he says, "... historically, ... the more original a product, and the more far reaching its implications, the more likely it is to be judged by the contemporaries to be evil."  

Salvatore Maddi reiterates this view by pointing out that:

... a common effect of creative endeavor is the disruption of the status quo, regardless of the subject matter involved, or the insightfulness of the creative person into the implications of his actions, ... creative persons and acts are threats and are reacted to as dangerous in direct relationship to their effectiveness.

Rollo May explains that:

Dogmatists of all kinds - scientific, economic, moral as well as political - are threatened by the creative freedom of the artist. This is necessarily and inevitably so. We cannot escape our anxiety over the fact that the artist together with creative persons of all sorts, are the

---

38 Testimonies of the Life, Character, Revelations, and Doctrines of Our Ever Blessed Mother Ann Lee and the Elders With Her (Hancock: Talcott and Deming Printers, 1816), pp. 80-81.


40 Maddi, "Creativity is Strenuous," p. 140.
possible destroyers of our nicely ordered system. Rollo May also quotes Picasso who said, "... every act of creation is first of all an act of destruction." 

Morton Teicher points out that:

... culture is the matrix and the context for creativity; indeed it is the context for all creative behavior ... Culture, elaborated and developed, makes creativity possible, and in turn is enriched by creativity.

Thus Teicher is saying what Rollo May and Irving Taylor have said - that the creative person must be studied within the context of his or her environment. Creativity is a process that involves a person interacting with his or her world.

Harold Lasswell points out that we have the ability to anticipate innovation if we can understand more about the "significant contours to be found in a given social context as a whole or in selected situations within it."

Don Fabun characterizes a 

... creative society (or institution within society, such as business corporations, the church, the government, education, etc.,) as having ... sufficient material wealth to provide time and opportunity for the creative process, ... a communication system that allows a variety of inputs and free exchange of outputs between members, ... a reward system, ... a climate of acceptability rather than punishment, ... opportunity for privacy, ... time for individual meditation, escape from disruption by family, friends, or colleagues, ... ability to form disciple or

41 Rollo May, Courage, p. 84.
42 Ibid.
43 Morton I. Teicher, Culture and Creativity quoted by Fabun, You and Creativity, p. 25.
44 Ibid., Harold Lasswell, quoted by Fabun.
peer groups, an education system that rewards and encourages free inquiry.\textsuperscript{45}

The following researchers have emphasized the importance to creativity of environmental stimulation: Berlyne (1960), Denenberg and Bell (1961), Murphy (1951), and Fisk and Maddi (1961).

Maddi (1976) emphasizes the need to toughen up prospective creative individuals so that they will be able to function in a society that feels threatened by the change that follows creative activity. He says:

\begin{quote}
If we want to help persons to be more creative, we should toughen them up by encouraging self-confidence, a belief in their own greatness, and an imperviousness to social approval or rejection, rather than having them practice little excursions in novelty in the hothouse climate of a permissive, loving laboratory.\textsuperscript{46}
\end{quote}

John Haefele, on the other hand, proposes that a climate conducive to creativity is characterized by "recognition, use, freedom, and a satisfying goal."\textsuperscript{47} Herein lies the basic difference of opinion related to the question of environmental influences conducive to the development of creativity.

John Calhoun supports Maddi's position by describing the situation wherein:

\begin{quote}
... a steady diet of psychological satiation, perfect security, a cup of overflowing with devotion and admiration, and a too soon achievement of a narrowly conceived objective lead to ultimate boredom. This boredom is relieved all too often by the short circuiting
\end{quote}

\textsuperscript{45}Fabun, You and Creativity.

\textsuperscript{46}Maddi, "Creativity is Strenuous."

procedure of participating in sensationalism or in pharmacologically induced, creatively sterile states of exaltation. 48

Calhoun refers to the restless few who arise from the bored as:

... creative deviants whose insights and inventions provide the leverage which enable man to increase his standards of living and his compassionate concern for his fellows. He points out how tenuous has been our success in being human which has so far been derived from our honoring deviance more than tradition. 49

Irving Taylor theorizes that "... environmental stimulation is neither necessary, generating, nor defining in transaction." 50 He concludes that creativity originates from within the person, rather than from the environment, or as interplay between the two. Yet he consistently includes environmental stimulation in his definition of creativity. Taylor views creativity as a system and the

... fundamental implication of stimulation is that it releases, triggers, or initiates creativity in individuals. ... Stimulation appears to facilitate creative leadership, creative organization, and significant social change. Our research has indicated that expressive creativity results from sensory stimulation or providing good working materials, (e.g. good wood for a creative carpenter) will facilitate technical creativity. Inventive creativity may be fostered by enrichment stimulation, or by providing abundant facilities for exploration. Innovative creativity may be facilitated by progressive or development stimulation. Finally, ideation stimulation may catalyze emergent creativity. 51

Taylor lists many of the conditions reported in the literature that tend to induce or facilitate creative behavior.


49 Ibid. p. 29.

50 Taylor, Creative Transactualization, p. 19.

51 Ibid.
They are:

reduction of frustration producing factors in the environment, elimination of win-lose competition, provision for support, encouragement of divergent thinking, emphasis on problem solving and working through of conflict rather than on generating a harmonious atmosphere, general maintenance of an open environmental structure, minimization of coercion, minimization of enforcement of behavior norms, elimination of environmental threats, provision of encouragement, aiding the person to understand himself and his divergence, allowing free communication, acceptance of fantasy, withholding of frustration at unusual questions, exposure to the risk taking opinion of others, group discussion and comparison of ideas, homogeneous grouping of individuals for group interactions, and competent group leadership.\textsuperscript{52}

Taylor adds to these, conditions of "... motion, enrichment, permutations, universality and support."\textsuperscript{53} He elaborates further:

Motion . . . This can be produced by a flow of materials and ideas, change of location, change of job, change of friends, or travel.

Enrichment . . . This may include good working tools, good working relations, effective surroundings, and involvement in projects.

Freedom . . . Individual autonomy, . . . freedom to select activities, approaches, projects, general professional freedom, freedom to grow, and personal freedom.

Permutations . . . Changing the position or order of people, things, ideas in combinatory relations to each other . . . can be organizationally achieved by intermixing personnel, job assignments, establishing new relations, juxtaposing different ideas, and encouraging divergent approaches.

Universality . . . Establishing broad and inclusive problematic areas of investigation with long-range goals rather than narrowly confined short-term projects can be achieved by investigating core problems, divergent problems, utilizing interdisciplinary expertise, and focusing

\textsuperscript{52}Taylor, Creative Transactualization. p. 18.

\textsuperscript{53}Ibid.
on significant issues.

Support . . . Providing sufficient leadership support to creative talent including rewarding creativity, acceptance of trial-and-error (particularly the errors), support of minority positions, valuing abstract concepts, and protecting germinating ideas at the time they are most vulnerable. 54

The Shakers explained the source of their ingenuity to be heavenly inspiration.

No creed can be framed to limit the progress of improvement. It is the faith of the Society that the operations of Divine Light are unlimited. All are at liberty to improve their talents and exercise their gifts. 55

The Shakers believed their villages to be populated by heavenly spirits who manifested themselves to brothers and sisters in various ways. Ann Lee told of her arrival in America with the few followers who

felt a special gift in their own souls; for they were greatly wrought upon, by the power of God and spoke (sic) with new tongues, and prophesied. Some could not speak in their own tongue for a number of days; but when they spoke, they spoke in unknown tongues. 56

It is here that we venture into uncharted waters. Scientific verification of fact and observation of such phenomena is not easily obtained. This is where we search for relevance in the realm of the Jungian collective unconscious, or the pre-conscious states of Gowan, and the experiences of the numinous element of Otto.

54 Taylor, Creative Transactualization.

55 Calvin Green and Seth Wells, A Brief Exposition of the Principles and Revelations of the United Society of Believers (Shaker Village: The United Society of Believers, 1895), p.11.

56 Testimonies of the Life of Ann Lee, pp. 64-65.
John Gowan has organized and systematized a large body of knowledge relating to psychic phenomena and the preconscious state. He has refined the basic concept of the numinous element in terms of Eastern and Western thought. He theorizes that

... the process of development in our individual lives and the process of evolutionary development for our species is simply an 'immense journey' from the prototaxic through the parataxic and eventually to the syntactic mode of representation of the numinous element.57

Gowan includes the Shaker experience of the religious ritual or dance in the category of the "group trance dance."58 The outpouring of the new hymns, spirit messages, spirit drawings, and other 'gifts' is perhaps a kind of unstressing effect Gowan refers to.

The effect of the juncture of the conscious ego and the numinous element results in some kind of behavioral outlet which represents resolution of the psychic tension engendered thereby ... . The social benefits may be

(a) in artistic or creative production which can be valued for its own sake;
(b) in advice or curing which has utility for society;
(c) in mediumship which in some cultures has positive regard;
(d) in glossolalia which can be valued as evidence of possession by the Holy Spirit.59

Sears includes excerpts from Shaker journals that describe a Shaker meeting in 1843.

When anyone is spoken of as being under operations it means jerking of the head, bowing and twisting, rolling of the eyes and contorting the face, and throwing the arms about. ... As these exercises continue, the zeal increases, the whole company frequently clap their hands in concert. Some

57Gowan, Trance, Art, and Creativity, p. 22.
58Ibid. p. 43.
59Ibid. p. 31.
begin and turn around with great rapidity, some leap and shout and talk in unknown tongues, and sing in unknown tongues. All this time the young sisters continue their turning, and they must not be checked because it is by the inspiration of God that these things are done. They often fall prostrate upon the floor and all animation seems to be lost for a season. There is frequently with them a crouching and bowing as though affected with a shock of electricity.60

Ross Mooney comments that

... in ... extreme cases where superior intuition really occurs, as in mysticism, what happens is almost a total eclipsing of the boundaries for the moment in a sense of total participation with the universe, and ... the capacity for that is one of the marks of creativity of a high order.61

It is interesting that scientists are now considering the evidence of unexplained patterns of behavior worth inclusion. Carl Rogers recently concluded that "there is more than one reality, and feels that the mystic may be nearer right than the psychologist."62

With this in mind, this study will also take into account the vast amount of literature in the form of journals, diaries, day books, and published works, the art form of the spirit drawings, and music in the form of hymns produced by the Shakers during the period known as the wave of mystic symbolism, (1843-1853) as possible evidence of Shaker creativity. Since the Shakers considered their religion to be the most important aspect of their lives, and in fact felt that their entire life

60Sears, Gleanings, pp. 205-206.
62Gowan, Trance, Art, and Creativity, p. 7.
was a religious life, it may be that religion and the ritualistic aspect was the most important environmental stimulation affecting Shaker creativity.

In reclaiming the soil, the Believers gave it a care which was almost affection, as if the love he withheld from the world had been diverted to the land. To Heyworth Dixon, the English editor who visited New Lebanon, . . . Shaker husbandry had a sacramental quality. He was astonished at the order and fertility of the communal land, a veritable Eden, he wrote, comparable to his own long-cultivated English valleys. What was the secret of such bounty and beauty? A stranger told him the Believers gave their minds to cultivation of the soil. But to Dixon the explanation lay deeper:

You see that the men who till these fields, who tend these gardens, who bind these sheaves, who train these vines, who plant these apple trees, have been drawn into putting their love into the daily task; and you hear with no surprise that these toilers, ploughing and planting in their quaint garb, consider their labor on the soil as a part of their ritual, looking upon the earth as a stained and degraded sphere, which they have been called to redeem from corruption and restore to God.63

One of the unique contributions to American culture made by the Shakers is their music in the form of hymns and anthems. Daniel Patterson explained that:

Shakerism paradoxically conserved an intensely subjective emotionalism within the framework of extreme social control. They like other mystics of the Christian tradition regarded self indulgence and self will as the chief encumbrances to one seeking this experience. They believed the necessary means of removing these encumbrances to be humility and strict obedience to their ministry and to the rules of their order and an earnest performance of its duties.

They regarded all their practices and doctrines as but stages in a continual unfolding of God's will to man and hence as being continually supplemented by new revelations through any member of the church.

Shaker musical creativity was encouraged by an important Shaker aesthetic principle, namely, that only those songs were recommended that bore the "feeling of being given or matured under heavenly sensation or spiritual

63Heyworth Dixon, as quoted in Andrews, People Called Shakers, p. 125.
impulse or songs ... received by divine inspiration."

The Shaker spiritual was affected by all these beliefs. In them lies the explanation for an extraordinary outpouring of songs among the Shakers.64

64 Daniel Patterson, "The Influences of Inspiration and Discipline Upon the Development of the Shaker Spiritual," The Shaker Quarterly, Vol. 6, No. 3, (Fall 1966), pp. 346-347.
CHAPTER III

RESEARCH DESIGN

Descriptive/Historical Research. The purpose of this study is to identify individual Shakers as creative inventors and innovators and to identify the environmental factors that influenced their development as creative individuals.

The research was carried out in four phases.

Phase I. Primary and secondary sources. Examined Shaker literature for references to environmental factors that relate to their development as creative innovators and inventors.

Phase II. Identified innovative and inventive Shakers. This was accomplished by compiling a profile of:

a. Creative individuals - (See Appendix E)

b. The creative society

c. Comparison of these profiles with:

1. Profiles and bibliographical materials about the Shakers (Appendix C)

2. Profile of Shaker Society (Appendix D)

Phase III. Interviews with the Shakers were planned to obtain first hand accounts of factors in their lives that affected their personal formation as members of the Shaker Society.

There are ten remaining Shaker women, some elderly. Formal interviews were not granted. The reason given this writer was the dissatisfaction these women feel toward interviewers who
have misrepresented them in the near past during the Shaker Bicentennial, celebrated in 1974-1976.

This writer did visit with the Shakers during August, 1974, and December, 1977. Conversations with individual sisters at these times have given some insights about childhood, formal education, play, work, and spiritual formation. This information has been incorporated into this study.

Phase IV. It was planned to administer the Creative Behavior Disposition Scale (CBDS) in order to determine behavioral dispositions toward creativity and to determine how these Shaker women transact with their environment by transforming generic problems into generative outcomes.

For the same reasons stated above, none of the Shaker women would consent to be tested. This part of the study has had to be set aside for the present.

Description of the Data Gathering Tools. The Interview: The purpose of the interview was to gather biographical data. The informal conversations with the sisters, although not as all inclusive and thorough, did give this writer data about early childhood memories, educational experiences, personal anecdotes about childhood, games, work, training, religious training and experiences. In addition to childhood experiences, some data were collected about early adulthood, significant persons who had an impact on each sister, and work assignments and accomplishments.

A tape recorder was used to record comments of Sister Mildred while this writer worked with the materials in the Shaker library at Sabbathday Lake, Maine. Other conversations were
noted from memory at the end of each day during the time this
writer worked with the various sisters in the kitchen, herb
shop, and dining area.

It was hypothesized that the Shaker sisters would identify
such factors as progressive educational practices, the system of
job rotation, various hardships, expectations that members
develop talents and gifts, and Shaker religious beliefs as
factors that influenced their problem solving ability and their
creative development. It was also hypothesized that not all of
the members will be identified as creative to the same degree.

Manuscript and Printed Source Material. There are over 300,000
pages of manuscript and printed material in the Shaker primary
resource collection recently micropublished from the major col-
lections in this country. The size of this collection is an
indication of the abilities and serious intent of the Shakers.
They were careful to record and document every activity and
belief touching every aspect of Shaker life - principles con-
cerning communal property, celibacy, separation, pacifism,
equality of sexes and races, and the sanctity of labor. Their
writings reflect their skills and record their poetry, recipes,
and prescriptions. Personal letters, journals, and diaries were
a means of communicating about philosophy, theology, changes in
forms of worship, developments with the outside world, and news
of spiritual and temporal concerns. Printed materials by
Shakers include official documents dealing with covenants and
membership agreements as well as apprenticeships, indentures, and
discharges, surveys, deeds, maps, financial records, and official
Church Journals kept by the Elders, Eldresses and Trustees, and
Testimonies and sermons ranging from history, education, spiritualism, the Bible, and theology. Inspired writings or communications with deceased members or other inhabitants of the spirit world are considered most unusual. These writings are believed to have had a profound influence on Shaker music, art, poetry, and dance rituals. Their hymnals and books on music theory number about 507 plus loose sheets of music and verse, indicating their significant contribution in the field of music.

In addition to the above, the Shakers published or had published by others over 1400 imprints including books, pamphlets, broadsides, and labels.

Serials printed by the Shakers included a monthly periodical, variously titled The Shaker, volumes 1 and 2 (1871-1872), Shaker and Shakerettes, volumes 3-5 (1873-1875), The Shaker, volumes 6-7 (1876-1877), The Shaker Manifesto, volumes 8-12 (1878-1882), and The Manifesto volumes 13-29 (1883-1889), and a daily, The Western Midnight Cry, volumes 1-4 and The Day Star, volumes 5-13.

It is from this body of material that this writer has gathered the data. These data can be classified in three periods: (1) data referring to the early formation of the Shaker communities when the spiritual growth of the members was given a higher priority than was the physical development of the properties. This was the formation stage, from 1747-1821 when the process of Shakerism was being rooted and affirmed, first in England and then in America.

This author has chosen three sources in which data relating
to the creativity is found: Testimonies of the Life, Character, Revelations, and Doctrines of our Ever Blessed Mother Ann and the Elders with Her, a letter by Father James Whitacker written in 1782, and journal entries by Brother Daniel Goodrich written in 1790.

(2) The second period, or time of Inspired Manifestations, from 1822-1855 represents a second period into which the data can be grouped. These data refer to the developments of the farms, industries, music, art, and social and religious structure. They consist of an article in an agricultural journal of 1840 by Governor Isaac Hill, the Introduction to a Tailor's Division System by Brother H.L. Bades in 1849 and samples of Shaker spirit drawings and songs.

(3) Data relating to the third period, or period of reflection is taken from a Domestic Journal for 1865, the diary of John Whiteley of Harvard, Massachusetts, 1878, Church journal from Alfred, Maine and Sabbathday Lake, Maine for the years 1879-1887 and 1877-1884 respectively, excerpts from the diary of Aurilia Mace, 1896, excerpts from the writings of M. Catharine Allen published in the year 1902 and 1905, the diary of Delmer Wilson 1888-1900, and excerpts from the book Shakerism its Meaning and Message by Leila Taylor and Anna White, 1905. It was during this time that the Shakers reflected on their past increases and current decline.

From these data we may identify environmental factors that have contributed to the creativity of the Shakers. We can examine the thoughts the Shakers had about themselves.
CHAPTER IV

RESULTS

The research findings will be reported in the following order:

A. Interviews and Creative Behavior Disposition Scale.
B. Manuscript and Printed Source Material, (1782–1900).

A. Interviews and CBDS

None of the Shaker sisters would submit herself to a formal interview nor were any willing to take the CBDS test. The reason given this writer was the continual misrepresentation and subsequent misunderstanding of their public pronouncements and interviews in the past. During 1974 and 1975 especially, these women were often contacted by news media people, researchers, and others because of the announcement of the Shaker Bicentennial celebrating the arrival of the Shakers in America (1974), and the founding of the first Shaker Community (1975).

These problems have led the Shakers to adopt a policy of no public statements and no interviews. This decision was conveyed to this writer on several occasions when she discussed the purpose of her research and asked for help. The sisters at Canterbury, New Hampshire, refer all correspondence to their lawyers for much the same reason.
B. Manuscript and Printed Source Material. (1782-1900)

Profile of the Shaker Society

If one were to seek out those qualities that characterize Shaker society, even when all else changes, these principles of the Shaker order would stand out:

1) Confession of sins in the presence of a living witness who has gone through the same test.
2) Life above the order of natural generation.
3) Community of interest.
   "The teaching and instruction was heard often - serving as constant reminders - the consecration to the life wherein everything was done to perfection is constant." 65

"A Shaker village is not only a new church but a new nation. The church is based on these grand ideas: The kingdom of heaven has come. Christ has actually appeared upon the earth. The personal rule of God is restored." 66

The following analysis is not chronological, but rather is based on those characteristics as they became apparent while the writer was reading and rereading the data after it had been collected and assembled.

The environmental factors affecting the Shaker Society are summarized below and then developed in detail:

1) Hardships of the early struggle to adapt and change for survival. As separatists they had to survive.
2) Religious belief system that accepted and welcomed spirit manifestations.
3) Education and preparation in multiple trades and skills. This was true for both boys and girls.

65Mace, Diary.

66Taylor and White, Shakerism It's Meaning and Message, (Columbus, Ohio: The United Society, 1905, p. 395.)
4) Training of adult members and rotation of work in many trades.
5) Communal sharing of concerns and of new ideas and discoveries.
6) The climate of acceptability—indeed the expectation that each member would devote his or her "time and talents in this life, in that manner in which one might be most useful."67
7) Material prosperity that afforded those who were capable the opportunity to be inventive, and provided the funds needed to purchase tools and materials.
8) The freedom to make decisions about one's beliefs and the use of one's time.
9) Recognition within the community through the publication of and sharing of accomplishments within the Shaker society, as well as public recognition.
10) Adequate workshop space and the opportunity to consult with others within or outside the community who were experienced in the fields of endeavor.
11) Relief from human toil to give opportunity for the cultivation of the higher qualities of the mind.
12) The desire "to improve the inventions of man, not to be like the world, but to excel the world in order, union, and peace, and in good works."68
13) The concept of "Consecrated Labor" to create a heaven on earth and to find a perfection and oneness with God, a sign of a mystic faith.
14) Sublimation of procreative energies to allow for creative energies.
15) Competent leadership.
16) The Shaker Principle of Progression or expected growth and change produced a steady flow of new ideas, new ways of thinking, and new ways of relating to life.

---

67 "The First Covenant of the Church of Christ (Shaker) in New Lebanon, New York, 1795," as quoted in Andrews, People Called Shakers, p. 64.

17) Participation in the three modes of experiencing the numinous element; the prototaxic, parataxic, and syntactic modes.

Each of these factors will now be developed in detail:

1) Hardships of the early struggles caused adaptation and for survival. As separatists they had to survive.

The following examples demonstrate the extent of Shaker industries developed in order to be self-sufficient within their own domain.

Among the first industries to be developed ... was the preparation of garden seeds, brooms, brushes, and medicinal herbs—taking the worker from field to shop. Saw, grist, and fulling mills were established at the outset. Tanning was one of the first pursuits, combining with it the manufacture of saddles, saddlebags, harnesses, whiplashes, and shoes. The early period also saw the production of spinning wheels, reels, buttons, and buckles, wagons, clocks, chairs, and miscellaneous coopers—tubs, measures, wooden dippers, cheese hoops, and so on. Clothering was likewise introduced shortly after the first gathering, with the hatcheling, carding, spinning, weaving and dyeing done by the sisters, and the tailoring, at first, by the brethren. The making of felt, colt's fur, and wool hats were important branches of the clothier's trade, as was the fulling of cloth and scouring of flannel. Hand cards for carding wool were first made for sale in 1793. Since many incoming converts were blacksmith mechanics, it is not surprising that nail-making, wire-drawing, tinkering, and the making of hollow ware, plows, hoes, rakes, clothier's shears, et cetera, should have been initial undertakings.

At the outset worldly styles were copied. As the forces of separation grew stronger, however, a new school of design emerged. Such virtues as honesty, humility, temperance, and simplicity (godly sincerity and a real singleness of heart) found expression in a furniture marked always by grace of line and purity of form. It is unpretentious, like the people who made it. It is perfectly simple, but not plain. Answering communal as well as individual needs, it was at the same time truly functional: the doctrine that all things should be made according to their order and use not only set the standards of workmanship but kept the joiners' craft from becoming stereotyped. The artisan was a relatively free agent. Families were independent.
Societies were scattered. Demands varied. As a result, though Shaker furniture invariably bears the stamp of its origin, each piece seems to have an identity of its own.69

2) Religious belief system that accepted and welcomed spirit manifestations in the form of new hymns, artistic expressions in the form of spirit drawings and poetic inspirations that took the form of spirit writings in verse form.

An early Shaker convert wrote the following:

On the famous dark day of 10 May 1780 though there were neither clouds nor smoke in the atmosphere, the sun did not appear all that day through parts of New England, and people were out wringing their hands and howling, 'the day of Judgement is come,' - the first public meeting opening the testimony was held at Niskeyuna. Subjects of the New Lebanon revival, still anxious over the problem of salvation, had been deeply affected by the reports of their leaders and the corroborating tales of miracles, gifts of healing, mysterious signs, and singular rituals. That the group near Albany were Europeans, that they had settled in the wilderness, that they were led by a woman with apparently supernatural powers, roused the curiosity even of a people not religiously disposed.70

In a publication designed to answer questions frequently asked of the Shakers, is found the following:

We are the most radical Spiritualists of our day. We are thoroughly convinced of spirit guidance and obsession, of spirit communication and interpositions. Our Spiritualism has permitted us to converse, face to face, with individuals once mortals, some of whom we well knew, and others born before the Flood. All spiritual phenomena commonly occurring in the world had an inauguration among us long before the "Rochester Rappings." By our Spiritualism we are become confirmed infidels to the foolish Bodily Resurrection Theory; to the untrue and disappointing Atonement Doctrine; to the monstrous Trinity scheme; to the cruel Predestination belief, and to all the man-made creeds of the popular churches professing Christianity. We are sure these theories are untrue, and we have hundreds of testimonies from those who, when in the body, were as firm in the belief of their

69Andrews, People Called Shakers, p. 120, 121.
verity as any can be now, but who were bitterly disappointed on arrival in the spirit world. We have progressed beyond mere physical phenomena to learn that these are very insignificant compared with the truths leading to the higher life of the spirit.\footnote{George A. Lomas and H.L. Eads, \textit{Plain Talks Upon Practical Religion}, (Shakers, N.Y.: Office of the Manifesto), p. 12.}

The hymn, "Simple Gifts" is one of the best known and popularized of Shaker hymns. It is shown here (Figure 1, p. 46) in the original version as it was recorded in literal notation, a musical device invented by the Shakers to make possible the sharing of new hymns with the other families and societies within the Shaker world. "Simple Gifts" was "given" to a brother at Alfred, Maine, in 1848. By "given" it is meant that the hymn was a gift from the spirit world given through a living Shaker medium, in this instance Elder Joseph Breckett. There are literally hundreds of such songs and hymns that were given in this way. Often the medium would sing while in a trance-like state and others would record the words and set it to music later, after meeting.
Simple Gifts

'Tis the gift to be simple 'tis the gift to be
pre, 'tis the gift to come down where we
ought to be, And when we find our-
selves in the place just right

'Twill be in the valley of love and delight
When love's simplicity is gained

To bow and to bend we shant be ashamed
To turn, turn we'll be our delight

One of many original songs of the Shakers—a dance song from Alfred, Maine, 1848.

Figure 1. Spirit Song. Simple Gifts 72

72 Sabbathday Lake Library, Poland Spring Maine. Facsimile.
Simple Gifts

'Tis the gift to be simple 'tis the gift to be free,
'Tis the gift to come down where we ought to be,
and when we find ourselves in the place just right
'Twill be in the valley of love and delight

When true simplicity is gained
To bow and to bend we shant be ashamed

To turn, turn will be our delight
Till by turning, turning we come round right.

Even as late as 1878, after the wave of Spiritualism had subsided for the most part, Elder John Whiteley recorded in his diary the following:

Sunday - June 2. We have a good gathering in meeting and a very good inspiration - Francis united for the first time - and near the close speaks and sings for three different spirits . . . The squaw sings very sweetly indeed of Mother Ann and her blessed gospel word.

Friday - May 23, 1878. . . We have a singing meeting. Francis present - and his Indian spirits sing to us, affording much pleasure to the young especially who have never seen or heard much in that way.

Thursday - June 6. . . Meeting after supper and a very good old fashioned time it is - Francis speaks for numerous Indians and other spirits -- The most interesting time we have had in a long time.

Tuesday - June 18, 1878. Elder Frederick Evans and Brother Ernie Bretzner from Mount Lebanon visit Harvard. At meeting the visiting brethren explain to us the recent materializations at Mt. Lebanon - quite an interesting time.

Sunday - July 7, 1878. Meeting -- Francis sings a couple songs -- Speaks for Big Chief and a young woman whose husband wanted to be a fine stead in the spirit land - out of which he works a good moral.73

The spirit drawing, as shown in Figure 2 (p. 48) was an artistic rendering in symbols of a message conveyed through a spirit.

73John Whiteley, Diary, Sabbathday Lake Library, Poland Spring, Maine.
Figure 2. Spirit Drawing. From Mother Ann to the Elders.
Often these same symbols would be used as a part of an elaborate ritual which would involve the entire community at meeting. These meetings would take place in the meeting house and on special occasions on "the holy mount" or outdoor garden especially prepared for these rituals. Andrews wrote of these rituals:

The sowing of spiritual seed from baskets slung over the arm was a common gift both on the mountains and in the community fields. This was done with a rhythmic cadence which made of the ritual a sort of dance. After the seed of blessing was sown the company passed over the ground again, sprinkling from "water pots" which have been placed on their shoulders by the Savior.75

There were many such pantomimes in which the Shakers acted out bathing, sweeping and cleaning, battles with the devil, driving dog sleds like Eskimos, hunting with bows like Indians, firing guns brought into meeting by the spirit of George Washington, and jumping about and playing as children.

The book, Youth's Guide in Zion, is a spirit message in prose form with specific instructions about printing and distribution within the Shaker Societies. (See p. 50)

3) Education and preparation in multiple trades and skills.

The young were considered to be the future of the Shaker Society. Therefore, education was a serious matter. Emphasis was placed first upon building character and then on the useful arts, "works that are truly virtuous and useful to man in this life."76

---


76 Joseph Meacham, "Instructions Concerning the Education of Youth and Children," as quoted in Andrews, People Called Shakers, p. 44.
that I write to you in particular, at this time: for the Holy Anointed are filled, & I know they are willing I should direct to you; that you must read it in their hearing, at the first opportunity.

I am Infinite Wisdom; I dwell with the Eternal Father, and have known all things, and the transactions of both good and evil spirits on the earth and in the heavens, ever since the beginning and creation thereof. I know the mighty power of the devil, and the Almighty power of God. I know the hosts of hell, and the greater and stronger hosts of heaven. I also know the cunning craftiness of evil spirits, and the great influence they have on the souls of mortal creatures, and especially when young and inexperienced.

These things have I long viewed with sorrow. But my God, whose power is Almighty, whose mercy endureth long, will not always be mocked by men or devils; for in his own time, he will set all things right; and none shall say aught against his holy work.

And now, O ye little ones, ye beloved Elders in the work of God on earth, know ye this, that in my wisdom, I have chosen from the fifth band of the angels of love, a powerful and bright angel, that I shall anoint and appoint to reveal, in my wisdom, a [4] book which may be called, The Youth's Guide in Zion, and Holy Mother's Promises.

This book shall firstly be divided into numbered lessons, after which shall follow my sure promises to all who will faithfully learn these lessons, and walk as they direct, through time.

If the Holy Anointed feel union with this work, then see ye that the Instrument whom I have chosen to write this letter from me, your Holy Mother be prepared in low humiliation, with purity and singleness of heart, to write ten hours in a day, until the work is accomplished and sealed by the word of the angel, commencing, (if so it may be,) on the first day of January, 1842, at the hour of your appointment.

Suffer him not to speak, while thus engaged, to any one in Zion but the Lead. I require him to bow low every morning in prayer, to be blest with the true fear of God, and that he may write simply as the angel shall direct. And it is my desire that the writings be inspected once a day by the Lead; and if counsel is necessary on his part, be faithful and free to impart it.
Seth Y. Wells came to the Shakers from a position as an instructor in the public schools of Albany and at the Hudson (N.Y.) Academy. He was appointed superintendent of the Believer's schools. The Shakers selected their best qualified members as teachers. Academic training was separated from training in the useful arts. Boys attended school for a four month term under the tutelage of brothers. Then they were placed under the direction and care of brothers in the various shops and farms for training in skills and trades.

Delmer Wilson, when a boy of fifteen, wrote in his diary in 1888 about the variety of activities in which he was engaged. He had a talent for wood working and for farming and so was placed in charge of the milk cows and calves, and he worked in the shop making and fixing furniture, tools and farm implements. The following list is a partial list of some of the activities he recorded for the year 1888.78

care of cows and calves,
made sled at the mill,
collection and accounting of eggs,
milking and keeping account of amount of milk,
hauling wood and wood shavings,
splitting wood,
hauling corn to the mill,
sawing shingle binders,
attend to the calving of the cows,
slaughtering chickens,
cleaning stalls and hen house,
tapping maple trees, tending sap buckets, hauling sap to the shed,
helped shingle a roof,
building garden fences,
setting and tending muskrat traps, also skinning and selling the furs,

78 See Appendix C for entries in the diaries of Delmer Wilson for the years 1888 (age 15), and 1894 (age 21).
making a hot bed and planting and tending garden,
hauling manure,
tending the boiler,
clearing stones from the fields,
shoemaking,
making a jig saw,
building an observatory,
making mane boards for the cow stalls,
making an ice rack,
making chairs,
dipping shingles in whitewash,
laying floor boards,
making a saw dust chute,
making a level,
picking fruits and vegetables at harvest,
making rulers,
helped stretch telephone wires from shop to barn.

At age fifteen, Delmer made the following notation about
his progress at school for the year 1888:

How far I have been in my studies this winter term of school.
Reading has not made much headway. We have read chosen
pieces. Physiology - we have been through the book.
Ciphering - I have begun on p. 106 and got through to p. 192.
In mental arithmetic - we began on p. 131 and I have got
through the book. Geography - we began on p. 50 and have
got through the book. History - we have not studied much.
Grammar - we have got through the book with parsing.
Spelling - we have got most through the book. I have drawn
no maps this term. I have wrote some pieces.

Memoranda -
To remind me - next fall I am going to try and think to try
an experiment on the silo with a dry goods box.
Pliny gave me some seeds to plant in the spring. I must
not forget.
Next winter I must feed out my meadow hay before spring.
The cows are dainty about the first of March.79

By the age of twenty-one, Delmer was placed in charge of
the farm. He was designing and building his own tools. He was
given more responsibility and was eligible for full participa-
tion in the Society. He signed the covenant on his birthday in

79Delmer Wilson, Diary, 1888, Sabbathday Lake Library,
Poland Spring, Maine.
the year 1894. The memoranda for the year 1894 in Wilson's diary (see Appendix C) is an example of the care with which he planned for his own improvement.

Girls in the Shaker Society were educated in much the same way as were the boys. They had four months of academic training in the spring and summer. At other times they were placed under the direction of the sisters in the kitchen, sewing rooms, bake shops, herb house, laundry, gardens and various shops where the industries of the sisters were carried on.

Play and recreation were considered by the Shakers to be essential to the development of the children. They made certain that there was time for games, outings on the farm, etc. Accounts of childhood memories appear in journals and diaries. There is mention of picnics, berry picking, popcorn making parties, apple bees, corn husking bees, and even trips by train, boat, and wagon to visit the city.

Sister Elsie McCool of Sabbathday Lake, Maine, told this writer of the times in her childhood when they would ski down the hill across a field, and onto the road after the large horse-drawn rollers packing the snow on the roads would pass by. The brothers made the skis and sleds and a variety of simple toys for the children. Shaker girls had their dolls. The boys had their sling shots.

A shakeress from Neskeyuna (N.Y.) recorded an incident in her journal, telling of a time, when as children they would

... hide beneath an arcade of the bridge ... and ... we would pull off our shoes and stockings, and wade knee deep in the ... water. Then loading our long palm leaf bonnets...
with dandelions ... We would float them down stream in a race ... What mud pies we made and baked in the sun. What fun we had secreting kernals of corn in clam shells, and peeping from our hiding-place to see the chickens find them and peck them up ... We had no world’s toys, but were just as contented with our corn cob dolls, clam shell plates and acorn top cups, and chicken coops for baby houses.80

A self improvement society was started by a group of young sisters at Mount Lebanon in 1891. Its aim was the following:

... harmonious development of being, physical, intellectual, and spiritual, unity of sentiment and individuality of expression ... to ... establish a radical improvement in habits and manner, dress, and conversation and the interesting things. The rules forbid the use of all unkind or sarcastic remarks to or about one another, all manner of slang, by-words, extravagant expressions, false statements and white lies, and encourage the use of grammatical language and correct pronunciation.

Literary, scientific, and philosophical study took their attention and original work of a superior quality resulted. This was an earnest effort at self-education and the young girls engaged in it displayed marked progress which was duly noted by the Eldresses and teachers.81

Catharine Allen wrote the following:

While observing the injunction of their founder to lift their hands to work and hearts to God, these communities have not been neglectful of the culture which ministers to the higher necessities of mind and soul. They are abundantly supplied with the best literature both standard periodicals and well chosen books. Music has received considerable attention among them. Original inspirational song has from the earliest days been a distinguishing gift from the order. Nearly all the progressive movements in the outside world have been for them themes of discussion and well written articles in poetry and prose. Flowers brighten and add a refreshing, refining influence to their homes in summer and in winter. Innocent recreation finds place among them.82

---

81 Taylor and White, Shakerism Its Meaning and Message, p. 345.
82 Allen, A Century of Communism, p. 5.
Harvey Eads, a Shaker who exemplified all that was possible in the education, training and development of a Shaker, spent his entire life among them. Two scholars who have written extensively about Eads have commented the following:

... Eads had the unusual experience of being born among the Shakers, for his parents were converted shortly after their marriage. He was placed in the children's order at South Union, Kentucky before he was a year old, and spent his whole life, eighty four years, in the Kentucky societies, the last twenty years as presiding bishop of the two communities in that state.83

Eads was the product of Shaker education whereby formal schooling took place several months of the year while the remainder was spent in assisting in the work in the fields or shops. Thus he served as a teamster, seed grower, shoemaker, hatter and he worked at wool carding and spinning as well as the tin and sheet metal trades. He acquired skills in dentistry, painting, tailoring, printing, and book binding. In 1849 he wrote and published, The Tailor's Division System. His fame as an author centers itself in the spiritual realm with his book Shaker Sermons bearing the title Shaker Theology on its spine. Eads' spirituality and leadership ability showed itself when at the age of 28 he was appointed to the South Union Ministry to assist Elder Benjamin S. Youngs. Likewise it shines forth in 1864 when he was called to Union Village, Ohio, and released from the ministry and again during the years following his return to South Union in August, 1862. In the preface to the third edition of Shaker Sermons we read, 'This is the first book ever written for publication by an individual whose life has been consecratedly devoted to and guided by the principles of Shakerism and the tenor of the discourses denotes words fitly spoken like apples of gold pitchers of silver.' The sermons embrace nearly or quite nearly every feature of Shaker polity and will be highly appreciated by many as a book or reference upon the subject of Shakerism.84

4) Training and work in many trades.

The following are descriptions of the work - lives of

83 Andrews, People Called Shakers, p. 108.

some Shaker men and women. The same pattern held true for the majority of Shakers.

Believing that variety in work was 'a source of pleasure,' the order encouraged its members to master several skills. Richard McNemar, for example, was a weaver, bookbinder, chairmaker, printer, editor, author, and preacher; Elder Harvey L. Eades, of South Union, was a tailor, shoemaker, teamster, seedsman, wool carder, tin and sheet-iron worker, dentist, printer, painter, and hatter—as well as author and elder; Giles Avery of New Lebanon was a joiner, cooper, wagonmaker, plumber, mason, and carpenter. In 'his history in verse' Brother Isaac Youngs recorded that

I've always found enough to do
Some pleasant times, some grievous too
Of various kinds of work I've had
Enough to make me sour or sad,
Of tayl'ring, Join'ring, farming too,
Almost all kinds that are to do:
Blacksmithing, Tinkering, Mason work,
When could I find a time to shirk?
Clock work, Jenny work, keeping school
Enough to puzzle any fool!
An endless list of chores & notions,
To keep me in perpetual motion.85

Two typical cases, that of Henry Blinn of Canterbury and Enfield, who rose to the ministry, and that of Benjamin Gates of New Lebanon, who later held a position of responsibility in that society, indicate how varied was the occupational life of the Shaker workman.

Blinn, a native of Providence, Rhode Island, entered the novitiate order at Canterbury in September 1838, when he was fourteen years old. His first occupation, under the charge of a young brother, was sawing staves for pails. Later in the fall he was transferred to the farm. In October he entered the community blacksmith shop, but when it was found he was not strong enough for this work, he was placed under the care of Brother Thomas Hoit, 'a universal chore man,' who had charge of the carding mill and the stove, tinware, and cut-nail industry. Having served his apprenticeship as a wool carder, Blinn was elevated to the management of the mill. At the age of nineteen he qualified, under the laws of the state, as an instructor of children and youth, a position which kept him busy only in the three winter months and which he held for eight years. Besides

teaching, the young brother instructed his charges in the braiding of whiplashes, worked on the farm at harvest time, for ten years took his turn as a night watchman, and began the study of printing and bookbinding. It was in the latter occupation, first as a typesetter and later as a historical writer and editor, that Blinn made his most notable contribution to the welfare of the order. For nearly sixty years this was his major occupation, even while serving as a family elder and a leading member of the Canterbury-Enfield ministry. But these elevated offices did not prevent him from working, at spare times, at those tasks in which he had had some experience as a youth, or from learning dentistry and bee-keeping. Altogether he had some thirteen or fourteen occupations.

A typical month's work by Benjamin Gates, who was apprenticed to a tailor and learned the trade while still attending school, is thus recorded in his journal:

September 1832
S 1st Helped clean out the ditches in the swamp so as to let the water on the meadow.
M 3rd Sa 8th Ploughing and harrowing above the south orchard with the old horses chief part of the time, and the rest of the time drawing dung from Jones's on the flat.
W 5th The family move into the house! . . . But me no go, that to my sorrow . . .
M 10th I help finish sow the wheat
T 11th Draw dung
W 12th Help clean up the tailor's shop, and gather myself in
Th 13th Help cut onion seeds; and begin a blue jacket for Hiram Rude
Fr 14th A.M. go down to the grist mill and mend conductors
P.M. cut onion seed
S 15th Work on Hiram's jacket
M 17th I work on Hiram's jacket
Tu 18th I finish said jacket, & do various chores
W 19th I began a blue jacket for Philip B.
Th 20 & 21 I help shingle the hog pen
S 22nd I finish Philip's jacket, and do various chores
M 24th Began a blue jacket for Benjamin Lyon
Tu 25th I finish said jacket
W 26th I go a buttermuttering with Rufus Hinkley
Th 27th Began a jacket for Aron Bill, thick blue
Fr 28th & 29th I work at the north house, preparing hoof and horn for buttons.

86 Ibid.

Gates' journal reveals his participation in many other activities: in the fall, picking apples, making cider, digging potatoes, gathering herbs, roots, and hemlock bark, cutting carpet rags, getting out seeds, printing seed bills, helping to slaughter hogs; in the winter, when not attending school, drawing and cutting wood, binding books, working at the fulling, bark, and gristmills; in the spring, cleaning up shops, working in the physic and kitchen gardens, trimming trees, preparing tin for roofing; in the summer, berrying, haying, gathering herbs again, carpeting, washing sheep, distilling spirits, getting out stone, helping at the blacksmith shop, working on the Shaker section of the public highway. All the time tailoring was Benjamin's basic occupation but, having no rigid production schedule, he was free to assist the deacons, foremen, overseers, or caretakers at any time.

The above routine, or lack of it, is characteristic. The sisters' diaries, as the following selection from that of Elizabeth Lovegrove will show, are comparable, with the difference that a more systematic rotation of labor was practised. Monthly 'tours' were taken in housekeeping and in the kitchens, bakery, and wash house, every few months; and there were similar, if more irregular turns, in the dairy, weave shop, and herb house. Seasonal activities like preserving and maple sugaring drew the sisters together in bees of concentrated effort.

Sister Elizabeth left her 'habitation' at the East house in March 1837 to assist in the 'physician's lot': the early part of her journal is a running report on influenza, lung fever, canker rash, cholic, inflammation of the eye, 'quinzy'
sore throat, scalding, 'fellons,' one case of strangury, one of 'tick Dollereux,' and so on. Treatments are listed:

Betsey B. takes Phisic
Elder Sister is relieved some of her cough by the vapor bath and electricity.
Lucy Bishop here to help sweat Elder Ebenezer with hemlock and hot stones.
Commence poulticing Amy's face with camomile and marshmallows.
Elder Sister fell down and hurt her side - we resort to shocking rubbing and bleeding her, likewise apply skunk cabbage leaves and make her tea of Johnswort and pepper grass seed, all have a good effect.
Rachel Sampson severely afflicted with the sun headache, apply a blister to the neck and arm also oint the forehead with marrow of a hogs jaw and apply a bag of hops wet with vinegar, good effect. 88

Aurilia Mace commented in her diary about contributions to the general welfare of the community by three of the sisters.

Two nurses were responsible for all costs related to health care. On May 16, 1909 a doctor attended to set a broken leg - charge $14.33 and $8.39 for attendance, $22.72 in all.

The two women were Deborah Pate and Ruth Holmes. They were responsible. The Deacons set the cost against them.

To pay this and other bills the two attended to many businesses - distilling run and other liquors, mint water, and other distilled stuff. They also made straw hats, knit gloves, and other kinds of things which they turned into the office to be sold - the amount of sale was credited to them. 89

Aurilia tells of Sister Lucy Holmes and how she "...lost her health by taking cold - she painted outdoors on a cold day. She was up on a ladder painting and caught cold." 90

5) Communal sharings of concerns and of new ideas and discoveries.

---

88Journal kept by Elizabeth Lovegrove, as quoted in Andrews, People Called Shakers, p. 110-111.
89Mace, Diary.
90Ibid.
The following journal and diary excerpts show how extensive were the communal sharing and how conscientious were all members about a united purpose.

The Shakers visited back and forth among the other Societies, exchanging and sharing. Songs of welcome and of farewell were composed.

Oliver Holmes was a talented singer and composer. News of his singing reached the other societies so they asked to hear him. He was sent on a journey to the other societies. The sisters fixed his clothes and prepared him for this trip.90

John Whiteley commented in his diary:

Thursday, April 11, 1878
Meeting with the office folks and Elders - It is a very good thing to talk matters over, it tends to a much better understanding.91

In the Church Record of Sabbathday Lake (Maine) 1877-1884, we read:

December 3, Monday - Brethren's monthly meeting. Convened meeting in brethren's meeting room. All present except for three brethren. Elder Otis Sawyer attended and assisted. Brethren unitedly decided on the following subjects in the affirmative. Firstly, renewed and confirmed the arrangements made at our inauguration meeting April 6, 1877, that Brother Noyse the miller should from the toll taken at the mill furnish the two kitchens with wheat, corn and rye meal they need. All the rest of the toll of whatever kind not needed as above should go for stock and poultry by direction of Brother William Dumont and none should be taken from the mill without his knowledge and approval. Locks shall be put upon the toll chest at the mill. All this is done to secure a prudent use of the toll. Secondly, liberty shall no more be given to neighbors to cut and haul off wood from our forests or plantation to cut limbs or down wood. We need it all for our own use. Thirdly, the boys are to commence doing the milking for the winter beginning tomorrow the 4th. Fourthly, two hired men to be

90Mace, Diary.

91Whiteley, Diary.
employed to drive the horses and oxen and brethren at the work at the mill. Fifthly, the time of rising is changed from five o'clock in the morning to half past five o'clock and breakfast from six to half past six o'clock. This arrangement to continue for two months from this date.

March 4, Monday - Brethren's monthly meeting. The brethren met at their usual hour, seven o'clock pm and decided to repair the wash house and to introduce also a greater supply of water, the whole cost not to exceed two thousand dollars, also to repair the mill dam this season just as soon as it is consistent to do so.

April 2, Tuesday - Brethren's monthly meeting which should have been held last evening convened at seven o'clock pm. There was a lively discussion on the best way to divide business to make burdens bear equal on all and so economize the help and teams and avoid hiring. No conclusions were arrived at and the meeting adjourned until Thursday night. Elder Otis returned from Portland this afternoon.

November 28 - A new institution. Two young brethren commence to hold a weekly meeting on Thursday evenings. This first is very excellent.

1879

January 13, Monday - An evening school for boys is instituted. Brother William Paul, Teacher. Branches to be taught, arithmetic, reading, music, and good behavior. Improvements and alterations are being made in the old ironing rooms putting drawers, cupboards, and cloths presses, also wash sinks where water is introduced, fitting them for sisters shops.92

Eldress Catharine Allen comments further on the united efforts of Shaker men and women:

The inherited tendencies of centuries to uphold masculine domination finds its most effective rebuke when all meet together as equals in spiritual ministry to bring united offerings to a God in whom that name which holds all that is tenderest, dearest, and purest in childhood memories is lifted up to its highest ideal, motherhood in God. ...Although there is much order in their industrial arrangement, not being wage earners under a competitive system, they have no stipulated hours for labor but all are interested to sustain a united inheritance, the strong bearing the burdens of the weak, each giving according to ability and receiving as necessity requires.

92Church Journal, 1877-1884, Sabbathday Lake Library, Poland Spring, Maine.
... They know not of drudgery or menial services in the usual meaning of those words for among them Christianity has leveled all distinctions save goodness and the lowest duties are made honorable and high by sublime self-sacrifice.  

6) The climate of acceptability—indeed the expectation that each member would devote his or her "time and talents in this life, in that manner in which we might be most useful."  

Joseph Meacham contemplated the free utilization of all available skills among the members for the improvement of the society and the fulfillment of the covenant. 

Calvin Green and Seth Wells wrote that "The improvement of time, talent, and temporal possessions--God's gifts to man is a sacred obligation."  

Elder Harvey Eads wrote:  

We all labor with our hands, heads, and hearts, from the ministry and Elders, down to the last Novitiate; all, while in health, find something to do with their hands in aid of the cause, and that Satan finds no mischief still for Shaker hands to do. We have no stated hours for labor; all are expected to labor according to their ability; and at such employment for which they are best adapted, or the presiding genii of temporalities may deem proper.  

Catharine Allen wrote of the deacons and deaconesses whose task it was to direct the "temporal affairs, counselling with each other and with the elders always with the effort to recognize individual preferences and adaptability to the fullest extent circumstances will permit.  

93Allen, A Century of Communism, p. 6.  
94The First Covenant of the Church of Christ (Shaker) in New Lebanon, New York, 1795, as quoted in Andrews, People Called Shakers, p. 64.  
95A Summary View of the Milenial Church, or United Society of Believers (Albany: 1823), p. 5.  
96Lomas and Eads, Plain Talks, p. 16.  
97Allen, A Century of Communism, p. 6.
7) Material prosperity that afforded those who were capable the opportunity to be inventive and provide the funds needed to purchase tools and materials.

Andrews compiled the following sketch from Shaker documents that chronicled their thriving industries.

Regional innovations sometimes occurred. The center for the manufacture of washing machines, for example, was Canterbury. Soon after the Civil War knitting machines were adopted at Canterbury and Enfield (N.H.) for making flannel shirts, drawers, and socks. A profitable industry, confined to the New Gloucester settlement in Maine, was the manufacture of oak staves for molasses hogsheads, which were exported to the West Indies. Hancock developed an industry in table swills, and New Lebanon one in horn combs and carpet whips. Both New Lebanon and Watervliet experimented with the manufacture of metal pens. Clock-making was a thriving undertaking at a late period, particularly at New Lebanon and Canterbury. Pleasant Hill had a linseed-oil mill, South Union a whisky distillery. Silk worms, the source of the beautiful colored handkerchiefs woven in several societies, were raised in Kentucky. North Union took advantage of its proximity to the growing city of Cleveland to develop milk routes and extensive market gardens. Raw materials, available skills, and local demands varied, but the tendency was to concentrate on trades that had been concurrently developed within the United Society as a unit and for which a reputation had been achieved.98

Another outsider, visiting the Shaker villages commented:

I...saw their long ranges of stacks of grain, well filled barns, and well filled stores, it proves that they have neither want nor fear of it.99

The following entries in Church Journals give an indication of the extent of the Shaker's enterprise, skill and material prosperity:

June 15 - The new carriage. Brother Hewett took all the running gear off the carriage formerly used by the ministry lengthened the perch and William Taylor made a splendid four seated coach capable of carrying twelve

---

98Andrews, People Called Shakers, p. 125.
99John Finch, The New Moral World and Gazette of the Rational Society, as quoted in Andrews, People Called Shakers, p. 120.
persons. The history of the carriage. It was made in Concord, New Hampshire... for the Canterbury Ministry. After using it a few years, finding it did not suit them, sold it to our ministry in 1844... They employed a carriage maker to extend the top from back seat over the box holding the trunk. Brother David Parker got the carriage made.

October 17, Thursday - Sister Mary Ann and Mary Jane return from Portland. They bring home nearly 1700 yards of cloth, and 63 dozen spools of Clark thread and other goods in proportion to the family need.

December 23, Monday - Occupation of the new laundry. The sisters wash in the new laundry where labor is truly made worship. Steam does all the heat, water, and boils the clothes. A large copper kettle holding three barrels is suspended in which the water is heated for sisters to draw into their tubs. Steam pipes lead into the large tubs where in less than ten minutes the clothes are made to boil. They have only to turn a fawcett to get hot or cold water, and when done using it, turn a key and water all runs off into a drain. The laundry is not yet completed. A centrifugal ringer and a wash machine are to be added when a full occupation will be given.

Recapitulation for the Year 1875

Purchases - A Cooley Creamer - a new arrangement for setting milk... A Champion Mower, the latest improved mowing machine.

Brother Hewett has fitted up the new laundry in excellent style. He purchased three dozen of the Enterprise sad irons, invented by a lady named Florence Coats, with adjustable handles.

June 2, Monday, 1872 - Brother William Dumont went to Portland to exchange his steel plow for one of cast iron, the former not being strong enough for our stone land. William brought home a butter worker to be experimented with, the first ever introduced here.

December 1, Monday - The sisters are moving from their old shops into their new rooms and vacate the little girls room to permit the school to be kept there this winter. The sisters make a good many moves and changes for economic's sake and for the promotion of union.100

8) The freedom to make decisions about one's beliefs and about the use of one's time.

100 Church Journal, Sabbathday Lake Library.
Of this freedom the Shakers wrote:

Some may ask: . . . is it expected we can give up our early educations, our rooted theologies, and ideas peculiar to and taught by our parents and tutors? We answer: Believe what you please: we only ask you to live a pure, clean, holy life. Believe in one God or three, only let no god be an interference to the principles of strictest discipline of purity. Incline, if you choose to predestination, only regard it as established that you were predestined as a Christian, to be a follower of Jesus in virginity of life and thought. Your education perhaps has led you to believe in Jesus as an atonement; continue to do so if you prefer; but also assure us that to be at-one-ment with Christ is to live free and apart from fleshly lusts and worldly ambitions, and to pattern your life by the Christian model.

... Do you ask: Must I give up my property or money? Not until you choose to do so. We have arrangements by which you can be a member and retain every dollar's worth of property; but while enjoying the bounty of Society, it demands as its right the use or interest of such property for its maintenance or improvement.101

Brother James Holmes of Sabbatday Lake, Maine wrote in a preface for "Recipes, Maxims and Useful Hints in Farming and Other Matters of Economy," that it was:

...compiled and printed by him in his leisure moments that he is an Octogenerian, who has neither press nor fixtures for printing, the types excepted, but those of his own invention, begs leave to say that if the reader detects errors, either in typography or in mechanical execution, he hopes the above assertion may be received as sufficient apology for any lack of propriety which may be discovered in the rules of printing.102

The following entries in a church journal for 1888 show a willingness on the part of the Shakers to tolerate even what appears to be eccentricity in an effort to honor individualism.

101Lomas and Eads, Plain Talks, p. 20.

102James Holmes, "Recipes, Maxims and Useful Hints in Farming and Other Matters of Economy," West Glocester (May 1850).
July 5, Monday - Brother Henry Davidson disappeared from Poland Hill at an early hour this morning. No one knows whither he went.

August 7 - Much solicitation is felt for Henry's safety. Search is made in all directions but no clues to his discovery is made yet.

August 8 - A rumor is heard that Henry was seen at the mills five miles distant. Eldress Mary Ann and Lizzy Noyse take a train and go at once to that place, and find Henry is stopping with a hermit named Stephen Furbish in an obscure place in the west side of Little Sebago Pond in a place called Little Egypt. The road is so very rough leading to the place that they return home to go again tomorrow.

August 9 - Brother Hewett, Eldress Mary Ann and Lizzie Noyse went down in the land of Egypt to find and bring home Henry. But he declined to return believing he was sent there by the spirit to be disciplined and after a season of trial the spirit would call him to perform some great work. They gave him a bottle of milk and some other things.

August 13 - The ministry went down to Egypt to see poor Brother Henry. They carried five loaves of bread, butter, apples. Henry said he was not ready to return.

1879

March 5 - Brother William Dumont and William Paul went down to Gray, city of Egypt to visit our poor eccentric Brother Henry Davidson. They found him still under the delusion that he was called by the Lord to wait in the wilderness for the time of his calling to go forth to commence a new dispensation to be its head and founder like Jesus or Mother.103

The following entry was found in the Diary of John Whiteley:

Saturday - September 28, 1878

. . . Nathan comes up with his accounts. Talk with him respecting the Shirley Farmers Club - tell him he can render them the most assistance by so managing his own farm that they can see the improvements worthy of imitation, but that I shall leave it to his own faith of a right separation from the world whether he shall go to their meetings and take part in them.

103Church Journal, Sabbathday Lake Library.
Sunday - September 29, 1878

Many from Harvard don't come as expected - there is a lack in meeting but not of Daniel Milton who preaches no physical death, no worshipping of spirits (as if some did), no looking to spirits as angels to minister to our needy. 104

9) **Recognition within the community through the announcement of sharing of accomplishments within the Shaker Society as well as public recognition.**

In 1840, Isaac Hill, former governor of New Hampshire, visited the Shaker village Canterbury and wrote a detailed account of the Shaker's improvements to their property and their contributions to agriculture. Hill's account was published in the *Farmer's Monthly Visitor* of August, 1840. His article abounds in praise and admiration for such improvements as the new and novel artificial water power, the fuel-saving stoves, the grist mill and various buildings they constructed along the mill stream in order to utilize the water power. He praised the cloth factory and the talents of the Shaker brother responsible for developing a new strain of the teasel plant used in the fulling of cloth. He lauded the knowledge and skill of Brother Thomas Corbett, a self-educated botanist, who offered many new herbal preparations for the treatment of sickness. He impressed his readers with the astonishment he felt at the size of the great barn and the improvements of the cattle breeds, the extensive stone walks placed about the village by the "venerable Shaker Michael Tucker, age 86 years, who

104Whiteley, Diary.
prepares and lays the stone walks alone."105 Hill praised the agricultural skill of Johnathan Lougee who had cultivated one of the most rough and forbidden spots. Hill praised the quality of the Shaker butter and cheese, their labor saving haying and threshing machines, their Moreno sheep and the wool manufactory, the clever fuel-saving bake ovens which baked the daily meals from a single morning firing, the efficient laundry and its flourishing apple orchards. (See Appendix D for the complete account by Governor Hill).

10) Adequate workshop space and the opportunity to consult with others within and outside the community who were experienced in the field of endeavor.

Harvey Eads wrote in the introduction of his Tailor's Division System:

H. L. Eads Compiler and author--a good part the result of his own individual labors.

His first efforts in the art of tailoring were in the year 1836 without a teacher and finding much difficulty in accomplishing anything satisfactory to himself or others he was recommended by Mr. M. Burnette (a Shaker) of Pleasant Hill, Kentucky to take some scientific work on the subject for a short season which would lead him to the principles of the art . . .

Most if not all of these authors, he believes claim to have invented the best, plainest, easiest, and most scientific rule ever offered to the public and each would doubtless be astonished to see any turn from their system and adopt that of another and would perhaps think if they had a fair chance to explain theirs, that there would be no doubt of its universal reception.

The author has under the necessity of forming new drafts and proportions, adapted to our own use exclusively and whether he has succeeded or not must be left to the

---

decisions of those who may have patience to give them a fair trial. 106

Elder John Whiteley of the Harvard, Massachusetts community wrote in his diary the following:

Monday - September 2, 1878
I go to the North family, find John has got a new wrinkle on making hurl brooms - to which there seems to be some sense. He picked it up from a friend of Francis who has been at work in Lewiston, Maine sewing brooms. I get the idea and go to making No. 5 brooms for Fox and Co. until noon. 107

John made many trips to New York City and Boston. As Elder and business manager of the community, he consulted a number of persons in his effort to learn and improve himself as well as to secure business for the Shakers. This is seen in the following:

Shirley, Massachusetts Tuesday - March 5, '78
In Boston and Charleston on business. While there I go to hear Ingersoll speak on Skulls and Bones and after completing business in Boston, I take in an art exhibit.

Wednesday - March 6, '78
Went to Nichols to see photo-electric typing process - also Forbes Chrome and Lithographic Establishment - Wonderfully interesting.

Do errands and then on to Salem.

Called on some people - then to the Museum and Old First Church, built in 1620.

Boston - Friday - April 5, '78
My birthday - 59 years old - and yet know so little.

Well there is still time to learn to do and be good. Hope I may learn something from my experiences during this trip. What a hurly, burly this world is.

Cannot return to Harvard until 11:00 tomorrow. To State House in P. M. Set with Geo. Burett during most of the session - various matters up for discussion.

106Harvey L. Eads, Tailor's Division System - Founded Upon and Combined With the Actual Measurements Containing Thirty Diagrams Reduced to Mathematical Principals (Union Village, 1849), p. 4. 107Whiteley, Diary.
The most exciting the matter of making the town of Danvers a Mutual Insurance Co.

May 4, '78
... go to Smith with Elder John. See Ezra and get an understanding of his feelings with regard to the poultry - get it all smoothed out for the present.

July 23, '78
Return from Enfield to Harvard.

Because there is a two-hour delay for the train, I go to the art exhibit - see some very fine paintings ... the artist present - and a very pleasant story teller.

Saturday - July 26
Elder Geo. makes up document for Sarah Ann Grover to sign provided she is again accepted as a member.

At meeting with Elders it is agreed to leave it with the folks at the South Family to do as they can agree.

11) Relief from human toil to give opportunity for the cultivation of the higher qualities of mind.

The goal common to all Shakers was expressed by Brother Elisha Myrick of Harvard, Massachusetts.

... every improvement relieving human toil or facilitating labor gives time and opportunity for moral, mechanical, scientific, and intellectual improvement and the cultivation of the finer and higher qualities of mind.

12) The desire to "improve the inventions of man, not to be like the world, but to excel the world in order, union, and peace, and in good works."110

13) The concept of "Consecrated Labor" in order that the Shakers might achieve a new heaven on earth.

The Shakers consecrated themselves to labor. This

---

108Whiteley, Diary.
109Elisha Myrick, as quoted in Andrews, People Called Shakers.
110Andrews, People Called Shakers, p. 136.
devotion was the foundation of their society. The term Consecrated Labor united the spiritual and temporal kingdoms so that they might strive to achieve the New Jerusalem or heaven on earth, and in so doing seek "in unity...with a consciousness of meaning, and find the perfection and oneness with God that were the signs of a mystic faith."

Hepworth Dixon commented:

... when a Shaker is put upon the soil, to beautify it by his tilth, the difference between his husbandry and that of a Gentile farmer, who is thinking solely of his profits, is likely to be great. While the Gentile is watching for his returns, the Shaker is intent upon his service. One tries for large profits, the other strives for good work.

14) Sublimation of procreative energies to creative energy.

Hepworth Dixon said of the Shakers:

Love for garden and field took the place of the passion for money and love for wife and children.

... This morning I have spent an hour with Frederick Evans in the new orchard listening to the story of how he planted it, as to a tale by some Arabian poet. 'A tree has its own wants and wishes, said the elder, and a man should study them as a teacher watches a child, to see what he can do.

... I don't know if a tree comes to know you; and I think it may; but I am sure it feels when you care for it and tend it, as a child does, as a woman does.'

"You take a world of pains," I said.

'Ah brother Hepworth,' he rejoined, 'thee sees we love our garden.'

Two Shakeress authors recorded the following:

Said a Shaker after 62 years of experience in the order, 'it is of all cases and places by far the best experience for developing one's individuality. We

111 Andrews, People Called Shakers, p. 136.
112 William Hepworth Dixon, as quoted in Andrews, People Called Shakers, p. 118.
113 Ibid.
have an excellent opportunity for bringing every shaky unsuitable principle to the altar of self sacrifice so that when we are through with it all, we find that all that is in our heaven and earth that can be shaken has been shaken...and that which could not and cannot be shaker remains. At this stage of experience we find ourselves in possession of a completely rounded out individuality.114

15) **Competent leadership**

Daniel Patterson has this to say of Shaker Leaders:

The lead...was composed of persons elevated to responsibility only after long service had shown them to combine prudence, energy, and imagination with their sense of calling. They were the natural reservoir of much of the creative power in the society.115

The most influential person to have an impact on the Shakers was Ann Lee. She could neither read nor write and, therefore, she left no personal documents behind. The most complete source of data about her life and accomplishments is a book, *Testimonies of the Life, Character, Revelations, and Doctrines of our Ever Blessed Mother Ann Lee and the Elders With Her*, a collection of statements about her gathered from those early Shaker converts who were in her company or who had personal contact with her while she was alive. Of Ann Lee it was written:

The piercing and heart-searching power of Mother's testimony against sin, together with the powerful operations of the spirit of God, which pervaded in the meetings of her little family, thro her ministrations stirred up the rage and enmity of the professor and profligate of almost every class and description, to such a degree, that by formal Opposition and tumultuous mobs open persecution and secret malice, her life and

---

115 Patterson, Notes.
existence seemed in continual jeopardy. She was often shamefully and cruelly abused and a number of times imprisoned. But her testimony continued to grow and increase in the hearts of Believers in England till by special revelation of God, she embarked for America.

After Mother and her little family arrived in this country, they passed through many scenes of difficulty of a temporal nature. Being in a strange land, without any means of subsistence, excepting the daily labor of their own hands, the inhabitants of the land being utter strangers to them and their religion, their faith forbade their courting the friendship of the world, and Mother chose rather to rely on the mercy of God, than to solicit their charity, or even to accept the offers to those worldly advantages which were several times made to her.116

The entire book is devoted to account after account of the visions, healings, special abilities of Ann Lee and the Elders of seeing into the mind, contact with the spirit world, precognition and prescience, speaking in tongues and examples of unexplained events such as protection from physical harm.

The following is an example of such testimony:

Ebenezer Cooley, before he found the church, saw in a vision, a woman whose appearance was very glorious, and her face shown bright as the sun. In the beginning of the year 1781, he visited the church at Watervliet, and when he saw Mother, he knew her to be the same woman he had seen in vision. She spoke to him and said, 'I have seen you before, in vision. You must go forth and preach the gospel.'117

Catharine Allen has written of Ann Lee:

... Ann Lee was the pioneer of the women's movement.
... To her gifted mother soul ... this had no restricted meaning but was conceived as a mighty work of the Holy Spirit which would eventuate in emancipating the race from every tyranny. This has been acknowledged by many leading minds of the present time who after visiting these communities have expressed earnest appreciation of the importance and far reaching influence of her mission.118

116Testimonies of the Life, Character, Revelations, and Doctrines of our Ever Blessed Mother Ann Lee and the Elders With Her (Hancock: Tallcott & Deming, 1816), p. 10.
118Allen, A Century of Communism, p. 3.
Father James Whittacker assumed the leadership after Ann Lee's death in 1784. He was twenty-eight years old but he seemed to have the wisdom and ability of a man twice his age. His was a work of consolidating the newly established societies. This meant constant travel to Maine, Massachusetts, New York, and Connecticut. At the age of thirty-six he was worn out from the labors and rigors of his work and an untimely death resulted in the passing from the scene, the last of the original Shakers who came from England to America.

With his passing, a new pattern began to emerge under the guidance of Joseph Meacham, a talented leader hand-picked by Ann Lee herself. Father Joseph began to actualize the ideas of Ann Lee. His first act was to appoint Lucy Write to be the lead in the female line.

The head ministry was soon expanded to two male and two female elders and eldresses. The same pattern followed for the other leaders. All elders and eldresses as well as others in positions of authority are appointed rather than elected. The leaders were always on the alert for promising younger members to prepare them to take positions of responsibility. The elders and eldresses were expected to do manual labor and not set themselves above the ordinary brothers and sisters by special privilege. (See Elder John Whiteley's Diary in Appendix C.)

In a copy of a letter written by Father Calvin to Deacon Daniel Goodrich, Sr. in 1792, we find the following advice concerning leadership:
For Daniel a few words of counsel. First, I believe that the regulation of the trades that are in this branch of the church belong to thee. See that everything is done well in every branch and that nothing goes out without it is done well or in the best manner . . . .

. . . You have the right to inspect and give counsel in every branch of trade as need requires by visiting the shops.119

16) The Shaker principle of progression or expected growth and change produced a steady flow of new ideas, new ways of thinking and new ways of relating to life.

Catharine Allen commented:

The Shakers unlike orthodox sects are ever looking upward to the light or a continuous revelation. With them principles alone are regarded as a fixity. Creeds, patterns, and forms must in the nature of things be transitory in order to give correct expression to fuller and higher perceptions of truth. Therefore, while not conforming to the spirit of worldliness, we find them adapting modes of thought and action to the progressive principle which inheres in all life.120

Aurilia Mace made the following observation:

Spiritual life moves in spirals - each great spiral returning on itself, yet ever higher ever onward. Progression is the law of life. Always at the passing of the old and appearing of the new is a period of decline, as between the harvest of one year and the leafage of the next. As in physical nature, so in spiritual life, organizations obey the tidal law of ebb and flow. The spiritual law of retrogression and fresh advance.121

Elder Frederick Evans said the following:

The existing cycle becomes the seed of the succeeding one. The new cycle will surpass the old and supplant it as the work of Jesus supplanted that of John. Women must be a potent factor in founding the second cycle as she was in founding the first. The order is eternal by reason of the absolutely true principles that

119 Father Calvin Green to Deacon Goodrich, 1792, Sabbath-day Lake Library, Poland Spring, Maine.
120 Allen, A Century of Communism, p. 2.
121 Mace, Diary.
are the foundations of the society organizations. These principles will remain, others will be added.122

17) Participation in the three modes of experiencing the numinous element: the prototaxic, parataxic, and syntactic modes.

The Shakers experienced a variety of trance (prototaxic), art (parataxic), and creative (syntactic) states in the jerking, shaking, twirling, dancing, speaking in tongues, visions, healing, mediumistic utterances, spirit songs, spirit drawings, new designs, inventions, and innovations they produced.

The following incidents may be examples of the prototaxic experience:

Asa Allen having heard many strange reports concerning Mother and the Elders, (for common fame had already branded them with witchcraft and all manner of evil) he was determined to go see and hear and judge for himself. . . . When he arrived the door was standing open . . . Mother turned to him and said 'man, thy heart feels to me as hard as the nether mill stone.'

On their way from Brother David's to the river, Mother and her companions saw and felt themselves surrounded by hosts of angels, which so strengthened and encouraged them, that they broke out in heavenly songs and in union with their heavenly hosts, sung with great power of God, while their persecutors, who understood nothing of these things followed on in gloomy silence.123

The Shakers who may have experienced the numinous element in the parataxic and syntactic modes expressed themselves or unstressed themselves through the rituals of the Shaker meeting which included marching, shaking, shouting, clapping the hands, glossolalia, mediumistic trance, pantomime rituals such as sweeping songs and elaborate battle scenes in

122Taylor and White, Shakerism Its Meaning and Message.
123Testimonies, pp. 33-42.
which war with the devil was fought with imaginary guns and
tswords and appropriate war hoops, foot stomping and general
frenzy. They produced spirit drawings and spirit songs and
two book length spirit messages were for a time regarded as
a continuation of the New Testament.

The most involved of all rituals was that of the celebra-
tions at the outdoor holy grove. Through mediums, instructions
were given for the location and construction of a holy place
on high ground, on a mountain or in a secluded space. Each
society cleared half an acre of land, leveled it, enclosed it,
and laid out a fenced plot in the center. This center was
called the fountain. A marble tablet was placed at one end
according to instructions given at each community through a
medium. At one of these societies, North Union, near Cleveland,
Ohio, the instructions were the following:

Ye are to go forth from the Elder's room at the
Center family, turn to the southwest and enter by
the gate which leads to the meadow and thence march
two abreast until ye reach the corner of the garden;
there proceed east about half the length of the meadow;
thence proceed until ye come to a rise in the land
toward the east part of the meadow where all are directed
to stop and form a circle awaiting with bowed heads
the message. (Then came the message) Behold! Saith the
holy angel. Your Heavenly Father did pass over this
place and command it should be sanctified as His Holy
Ground. In the midst of this place shall be placed His
Holy Fountain. Ye may measure off six rods square and
in the center ye shall place a tree to represent the
Tree of Life. The Holy Fountain shall be five feet in
width and is to extend to the extremity of the Holy
ground save one rod. Behold! Ye shall plant four trees,
one at each corner of the ground to represent the four
angels who reveal this message. He did say that the Holy
Fountain is to be kept sacred for generations to come.

... Behold! Prepare ye a stone to be placed at the
head of the fountain with the inscription which shall be made known to you...124

James Prescott, a Shaker at North Union, tells about a Sabbath meeting held at Jehovah's Beautiful Square, as it was named.

Met in the meeting house and marched to the Holy ground singing. Here many beautiful gifts of inspiration were given to us. We were told by our inspired one, 'Behold! in the center of this Holy place I have caused a fountain to spring forth filled to overflowing with holy and everlasting waters from the river of life. After the following manner ye are to go and wash therein.'

We were told by our heavenly Parents that they were displeased with us because we had become lax in gathering in souls. We immediately held an open meeting at Empire Hall in Cleveland, also a number in nearby towns for the express purpose of gathering in members.125

The parataxic mode according to Gowan "... is characterized... through five procedures: archetypes, dreams, myth, ritual, and art... and... offers through the medium of images... a method... of interacting with the numinous element.126 It is possible that the rich experience the Shakers had during the time of the outward manifestation of the spirit and the symbolic gifts of fine clothing, jewels, fruits, wines, flowers, banquets, ritual dances, spirit songs and drawings may be evidence of the middle mode.

Gowan points out that adepts who have experienced these modes, and especially those who have experienced the syntactic level, advise sexual abstinence because sexual union discharges psychic energy and, therefore, causes one

126Gowan, Trance, Art and Creativity, p. 241.
to remain at a lower level of development. The Shakers refrained from sexual union; indeed, celibacy was one of the cornerstones of the sect. This may explain why the Shakers seem to have experienced the parataxic and in a few instances the syntactic modes more frequently and even as a matter of daily occurrence.

The syntactic mode was perhaps most clearly evidenced by Ann Lee.

She possessed remarkable powers and faculties of mind, in nature, which were greatly enlarged and strengthened by the gift of God. At times, when under the power and operation of the Holy Ghost, her countenance shown with the glory of God, and her form and actions were divinely beautiful, and very angelic.

The spirit of God seemed to breathe out in all her words and actions.

She possessed a degree of discernment and penetration which nothing short of Divine Power and Wisdom could inspire. She seemed to penetrate the inmost recesses of the young believer's souls; and would often lay open the state of their minds.

Again at Watervliet. She said, 'I bear in my body, daily, the marks of the Lord Jesus, and pulling up the sleeves showed her arms, and the blood was settled in spots. But I often feel the healing power of God so that I feel perfectly well both soul and body.'

Ezekiel Stevens related the following. Believers were coming to the church, who were sorely bruised and tired, and she (Ann Lee) felt in her body, so that she felt sore and bruised, and she said, 'I feel them coming.'

C. Observations and Discussions with the Shakers, December 4 - 14, 1927.

During the ten days this writer was a guest in the large brick dwelling at Sabbathday Lake, Maine, she was able to

127Testimonies, pp. 343-348.
work side by side with and converse informally with each of
the sisters who lives there. They are Sister R. Mildred
Barker, acting Eldress of the community, and Trustee of the
Society, Sister Elsie McCool, Sister Minnie Green, Sister
Elizabeth (Lizzie) Dunn, Sister Marie Burgess, and Sister
Frances Carr. There are three men living and working at
Sabbathday Lake. Although they are not able to become Shakers
because of the ruling that no new converts will be accepted,
these men have professed a belief in the tenets of Shakerism.
For this reason, they are called brothers and share in the
daily life and contribute to the welfare of the community.
They are Brother Theodore Johnson, curator of the library,
David Serette, printer and photographer, and Arnold Hadd.

While living with the community, this writer took part
in the daily routines, including rising at 7:30 a.m. with
the bell that calls the community to breakfast and morning
prayer.

Each member of the community has assigned tasks, some
of which rotate, like the kitchen duties of cooking and baking,
while other tasks remain constant because of the physical
ability and specialized talents of each person.

Part of this writer's day was spent in research in the
community's library. At other times she worked with one or
another of the sisters at various tasks like packing herbs
and pasting labels in preparation for shipment, or hauling
wood for the various wood burning stoves used throughout the
large brick building and in the herb house, shoveling snow
during the early winter snow storm, and working in the kitchen and dining room at meal time. Throughout the course of the day, there were opportunities to chat with the sisters, sometimes during work, and at other times during mid-morning and mid-afternoon coffee or tea breaks. As pointed out by Catharine Allen a half-century ago, "there are no stipulated hours and strict time schedules for labor but all are interested to sustain the united inheritance." Each person went about his or her daily routines in a relaxed manner.

This writer observed no unusual or innovative work going on. Sister Mildred and Sister Frances make occasional trips to speak about the Shaker experience. Sister Mildred continues her work of collecting and recording Shaker hymns that might otherwise be lost because they have not been written down. Each sister and brother contributes hand-crafted items to be sold in the museum gift shop. Sister Mildred is the most articulate and, as acting Eldress, has the most demanding job, that of overseeing the entire workings of the museum and of the community. During one conversation, she told this writer that she sees herself as a rebel of sorts because she stands firm on her conviction that the ruling not to admit members is unwise and that the doors of the community should remain open to sincere seekers after the Shaker life. She is full of energy and no job is beneath her. It was her skilled hand that each morning set the fire in the stove in the library so that this writer was comfortable while working there.

---

128Allen, A Century of Communism, p. 4.
In another conversation Sister Mildred said that she would like "to be remembered as one who had pledged myself to the service of God and had fulfilled as perfectly as I can." At another time Sister Mildred said she wants to be "remembered as a person, not as a stick of furniture." This comment was made because of the frequent inquiries about the now much sought after Shaker furniture so highly valued by antique collectors. In response to the question about the source of inspiration and creativity among the Shakers, Sister Mildred said,

The consecration of time and talent and ability was part of the vow that you took to become a Shaker. You consecrated your all. That was what kept everybody, if they were true to their vow, they were continually giving what they had to give. Maybe what they were giving wasn't tangible like a chair or table but they were doing what was hard to do 3 whether it remained visible or if it was something that was done and nobody saw it. This is part of the consecration.

This writer asked Sister Mildred if this vow was part of the written covenant. Sister Mildred replied, "Yes, it does speak in the covenant of the consecration of time and talents." The covenant is a legal document signed by each member when he or she reached legal age or at a time when the person was ready to sign it.

Of her childhood, Sister Mildred said she was brought to the Shaker Community at Alfred, Maine at seven years of age, in 1903, after the death of her father. She was raised and educated by Shaker women. She tells of how she became deeply

---

129Conversation with Sister Mildred Barker, Sabbathday Lake, Maine, December 8, 1977.
130Sister Mildred, Conversation, December 11, 1977.
131Ibid.
attached to many of the older sisters. By this time, the dance ritual was no longer in vogue but she did learn many of the steps and patterns because she was intensely interested in music. She said, "As a child I loved to sing, and I would sing almost anything I heard."\textsuperscript{132}

As an adult, Sister Mildred had the responsibility for the care of the girls after they were old enough to leave the children's house. This task was one she enjoyed as she was able to exercise her mothering.

In a discussion about Brother Delmer Wilson, a man skilled in many trades and who developed to perfection the art of making the Shaker oval box, Sister Mildred pointed out that Delmer and other Shaker craftsmen are the ones who drew the attention of the world. It disturbs her that people seem to be only interested in those who were producers in the materials realm. "No one knows about the brethren and sisters who were spiritually talented, who raised up the young and who were quiet and not seen and heard from by the world."\textsuperscript{133}

Sister Frances Carr, the youngest covenant signing Shaker is, at the age of fifty, an energetic and multi-talented woman. She says of herself that she is outspoken, often commenting about world affairs, local events and family situations with quick wit which indicates that she reads widely. Sister Frances moves about quickly. She makes decisions quickly and gets to work fast which means that she gets a lot done in a short time.

\textsuperscript{132}Sister Mildred, Conversation, December 11, 1977.
\textsuperscript{133}Sister Mildred, Conversations.
When this writer discussed concepts of creative problem solving with her, Sister Frances commented that she thought that members of the community could use training in problem solving to help them be more open to alternatives and to take initiative.

In other informal talks, this writer heard about the games and winter enjoyments the sisters experienced as children growing up in a Shaker community. Sister Elsie McCool told of the skiing they did on home-made skis, made by the brethren in the shops. Sister Minnie Green told of sledding down the steep hill on the other side of the road from the big house. She told of the ice skating on the mill pond in the cold Maine winters. Sister Lizzie told of walking hip deep through the snow to get to the barn and chicken house, and how she finally solved this problem with a pair of snow shoes. Sister Marie Burgess and this writer worked together in the herb house. She enjoys laughing and joking while working. When not helping in the herb house, Sister Marie is busy at the gift shop and she is never far away from her knitting and sewing. She designed and makes for sale a simple but clever hand duster that fits the hand like a glove.

It appears that each sister has a distinctive and individual personality and each sister is unique. Their lives are simple, for the most part, but each person must work to contribute to help share the financial burden of the large property and buildings. Gift shop sales and tourism at the museum in the summer months are the chief sources of funding.
some income from the sale of apples from the orchards. Times are not as prosperous as they have been in the past and the struggle for survival is evident again. The future of the community is uncertain.
SUMMARY AND CONCLUSIONS

The historical periods which are significant to the study of environmental factors that influenced invention and innovation among the American Shakers are the early developmental period from approximately 1774-1840, and the period of Spirit Manifestations from about 1837-1860. The period of decline from 1860 to the present is less significant. Individual brothers and sisters continued to make creative contributions in the Shaker society, but the flurry of innovation had passed.

The significant innovations in the religious, social, economic, material, and domestic areas were marked by a variety of environmental influences. Initially the Shakers found themselves in a hostile social, religious and physical environment. The realities of a harsh life required innovation, adaptation and change in order that they survive. The ideas and plans for a celibate, separatist, communal society instituted by Ann Lee, the founder, were so new, unheard of, and unacceptable to society at large, that persecution followed quickly their arrival in America. The Shakers were feared and considered to be a threat to the existence of established conventions of the day. This threat prompted fear on the part of society which in turn prompted the separation or withdrawal of the Shakers to
relative security. Separation from the world reduced the threat of hostilities but also required that the Shakers be a completely self-sufficient society. Therefore, other types of environmental influences began to be felt. The internal security enjoyed by the Shakers freed the members from the rigors and cares of survival from persecution and caused them to shift their attention to economic survival. Their new found security also provided them with the opportunity to refine their ideas, develop new systems, invent and innovate as they wished.

A religious spirit pervaded the society and influenced every task, both sacred and profane. Through diligence, dedication to a new ideal, and native skills, the Shaker societies were soon thriving villages where every need could be met to the extent that a surplus of goods existed. This surplus became the basis for the marketing economy that expanded to become an important source of funds that insured economic well being for the Shakers. In fact, the marketing of Shaker goods became so successful that an unexpected prosperity resulted.

The clever inventors in the Society had every tool, device, material, and freedom to experiment. It was a sacred duty of each member to develop his or her talents and skills so that each person's unique gifts could be consecrated to the best possible use and good.

Permeating the entire fabric and pattern of Shaker life is the one factor which appears to have been the most important influence on Shaker creativity and which is believed by the Shakers themselves to have been responsible for their many
contribution of an inventive kind; that is their religious belief system which welcomed the gifts and diversity of talents, and asked each member to consecrate these gifts and talents for the benefit of the Shaker society and for the benefit of the world. It was a system of beliefs that welcomed the world of the spirits and gained access to and participation in the Universe as One, the numinous element.

The following is a summary of environmental factors believed to have affected the creativity of the Shakers as evidenced in the data presented earlier:

- sensory stimulation
- resource stimulation (good working materials)
- belief in the principle of progression
- motion
- freedom
- support
- recognition
- utilization of inventions (use)
- satisfying goals
- material wealth to provide time and opportunity
- communication system that allows:
  1) a variety of inputs
  2) free exchange of outputs
- reward system
- climate of acceptability
- opportunity for privacy
- time for individual meditation
- escape from disruption
ability to form disciple or peer groups
an education system that rewards and encourages free inquiry
reduction of frustration producing factors
elimination of win-lose competition
emphasis on problem solving and working through conflict
open environmental structure
minimization of coercion
minimization of an enforcement of behavior norms
elimination of environmental threat
provision of encouragement
climate of toughness demanding self-confidence
honoring of deviance over tradition

persecution
sensory deprivation
acceptance of fantasy
group discussion and comparison of ideas
competent group leadership
presence of and participation in collective unconsciousness,
or numinous element
participating as One with the Universe
religious belief system that fosters development of unique
talents and gifts
rituals which may induce altered states of consciousness.

By studying this list, one might find an apparent
contradiction. Persecution and freedom from hardship,
sensory stimulation and sensory deprivation, climate of tough-
ness or of crisis and elimination of crisis to name a few, seem to be opposites, incompatible, and contradictory. However, it was found that, under some circumstances, creative breakthroughs are made because of the presence of one set of factors and that other creative actions result from just the opposite factors. For example, the Shakers left England because of persecution. The adaptation required as a result of separation from the mainstream of society was triggered by the persecution and hardship, but the security or elimination of threats made it possible for the Shakers to refine and develop basic plans and ideas into elaborate schemes. When the Shakers became settled in their own environment, then the climate of acceptability, prosperity, and religious and intellectual freedom may have made it possible for them to be inventive and creative in their directions.

It appears that a cycle or spiral of crisis, innovation, crisis may be one sort of pattern that is experienced in our society. It appears to be true of the Shakers at any rate. A new idea, Shakerism, was felt as a threat thereby setting in motion the persecution that created a crisis and caused the Shakers to withdraw to a secure environment. This withdrawal required adaptation for survival. As a result of adaptation, innovation and invention produced new social and economic patterns. Once the crisis passed, and stability was restored, invention and innovation could take a different direction and the specifics of the religious, social and economic orders could be developed. The spiral continues when a crisis develops
over another problem or concern considered to be a threat to the status quo. For the Shakers the new crisis developed from their British origins and their pacifism. They were feared as spies loyal to the crown. Figure 4 is this writer's illustration of one of the possible patterns of invention and innovation.

Figure 4. Invention Innovation Spiral.
The chart begins at the center of the spiral, Big World—New ideas, and moves toward the edge of the spiral. The designation Big World can represent the world at large or a larger social group in which an individual or sub-group operates. It is often, but not always true, that inventions, innovations, new ideas threaten the status quo. The action and reactions shown on the chart may occur. This pattern was true for the Shakers. This picture became more and more evident as the data developed an historical perspective.

It seems apparent through this study, as theorized in many earlier writings on the subject of creativity, that there are a variety of situations calling sometimes for one set of environmental factors and at other times calling for just the opposite set of factors for eliciting creative behavior in our society.

Thus, when Maslow, Rogers, May, Calhoun, Maddi, Taylor and others identify environmental factors that seem to be contradictory, it may be that they are focusing on one stage or phase of the invention/innovation spiral. It may be that both sets of influences are necessary to trigger creative behavior. As MacKinnon points out, "... there is no single mold into which all who are creative will fit. The full and complete picturing of creative individuals will require many images."

So too, the picturing of the environmental conditions affecting creative individuals is undoubtedly just as varied and will require as many images.

13^4Dr. Donald W. MacKinnon, Concluding Remarks, lecture, 5 April 1978, University of California, San Diego.
As Rollo May pointed out, creative persons are a threat to the nicely ordered system. The anxiety felt by society when the system is threatened is real and cannot be avoided, according to May. Anxious people cannot avoid reacting to a threat when it is present. Therefore, it may be more appropriate for creative persons to become aware of the invention/innovation spiral and be prepared for the persecution, repression, and denial stage if it occurs, and make use of the resulting crisis created when a society feels threatened by the challenge of change and newness. This response of creative individuals may be more realistic. In the end it may be more productive to withdraw than to expend energy trying to create the perfect, hassle-free environment. It worked for the Shakers. Retreat to a safe environment was a positive step in the direction of survival.
# APPENDIX A

## LIST OF SHAKER INVENTIONS

<table>
<thead>
<tr>
<th>Date</th>
<th>Invention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1789</td>
<td>Machine for making flat broom - first flat broom</td>
</tr>
<tr>
<td>1793</td>
<td>Machine for setting carding teeth</td>
</tr>
<tr>
<td>1807</td>
<td>Machine for punching leather for carding wool</td>
</tr>
<tr>
<td>1808</td>
<td>Electricity generating machine used for therapeutic purposes</td>
</tr>
<tr>
<td>1813</td>
<td>Circular saw - soft iron for cutting steel</td>
</tr>
<tr>
<td>1815</td>
<td>Threshing machine</td>
</tr>
<tr>
<td>1816</td>
<td>Hair caps - (false hair)</td>
</tr>
<tr>
<td>1819</td>
<td>Steel candle holders - from rolled steel sheets</td>
</tr>
<tr>
<td>1822</td>
<td>Fire fighting machinery</td>
</tr>
<tr>
<td>1828</td>
<td>Tongue and groove machine</td>
</tr>
<tr>
<td>1831</td>
<td>Hydraulic water system</td>
</tr>
<tr>
<td>1834</td>
<td>Tool for cutting spectacle glass</td>
</tr>
<tr>
<td>1834</td>
<td>Regulator (governor) for wheel</td>
</tr>
<tr>
<td>1836</td>
<td>Hernia truss</td>
</tr>
<tr>
<td>1836</td>
<td>Improved sun dial</td>
</tr>
<tr>
<td>1837</td>
<td>Silk reeling machine (iron vessel and furnace for this machine invented by T. Taylor - Union Village)</td>
</tr>
<tr>
<td>1843</td>
<td>Cultivator machine</td>
</tr>
<tr>
<td>1844</td>
<td>Improved playing machine</td>
</tr>
<tr>
<td>1846</td>
<td>Temple for loom</td>
</tr>
<tr>
<td>1849</td>
<td>Improved hydro-extractor</td>
</tr>
</tbody>
</table>
- Shears for cutting pen nibs
- Cut nails
- Method for making false teeth
- Governor for overshot water wheel
- Turbine water wheel
- Screw propeller
- Water wheel for weaving palm leaf
- Soap recipes
- Improved mangle - screw operated
- Sieve rims for metric measures
- Babbit metal
- Automatic spring
- Rotary harrow
- Stove cover lifter
- Clothes pin
- Improved wood burning stove
- Double decker stoves
- Summer covering for flat iron stove
- Cheese vats
- Self acting cheese press
- Improved wind mill
- Dr. Corbett's compound
- Sarsparilla lozenges
- Apple parer
- Apple corer and quartering machine
- Combination apple parer, corer, and quartering machine
- Improved lathe with screw feeder
- Machine for filling seed bags
- Machine for pressing herbs
- Machine for packing herbs
- Press for printing seed and herb labels
- Machine for splint making
- Machine for basket weaving
- Machine for box cutting
- Pipe making machine (clay pipes)
- Pea sheller
- Butter working machines - series of improvements
- Machine for twisting leather on whips
- Water powered machine for splitting wood
- First one-horse wagon
- Improved dumbwaiter
- Machine for dough kneading
- Power butter churn

The use of the word invention by the Shakers and others who commented upon the inventions is using the term loosely to mean clever improvements and adaptations of existing items as well as completely new and patentable items. The Shakers did not believe in patenting their inventions nor did they investigate the patenting process. To the Shakers, invention meant "new" to them.
APPENDIX B

PROFILES OF CREATIVE PERSONS

Abraham Maslow identifies the following characteristics of creative persons:

- ability to see the fresh, the raw, the concrete, the ideographic as well as the generic, the abstract, the rubricized, the categorized, and the classified
- open to experience, unflurished by the unknown, the mysterious, the puzzling
- spontaneous (to a greater degree than "average" people)
- able to express ideas and impulses without fear of ridicule effortlessly, with ease, innocently
- freedom from stereotypes and clichés
- innocent freedom of perception, based on approval and acceptance of the deeper self
- self-accepting and therefore less enculturated or afraid of what other people say, demand, or laugh at
- independent and therefore less afraid of and less hostile toward others
- when the situation calls for it, can be comfortably disorderly, sloppy, anarchic, chaotic, vague, doubtful, uncertain, indefinite, approximate, inexact, or inaccurate; also able to tolerate tentativeness and indecision

exhibits a resolution or fusion of the dichotomous qualities of unselfishness and selfishness; cognition and conation; duty and pleasure; work and play; selfish hedonism and altruism; maturity and childlikeness; ego strength and ego-lessness; individualness and self-transcendence.

WHAT IS THE CREATIVE PERSON LIKE?

The traits of the creative individual so far reviewed suggest that in controlling his impulses, his images, and his ideas, the creative individual eschews the ego-defensive mechanism of repression and suppression. Much which other less courageous persons would deny or repress is accepted by the creative individual. This, however, does not mean that the creative individual is extremely impulsive and uncontrolled. Instead, it means that he must, consciously and with some anxiety, assume responsibility for the control and expression of impulse and thoughts which in the neurotically inhibited person are beyond conscious control and expression because they are not admitted into the field of awareness.

Our researches clearly indicate that a most salient trait of the creative individual, indeed a trait that is at the core of his being, is courage. I do not mean physical courage, although he may possess that too. Rather, it is personal courage, courage of the mind and spirit, psychological or spiritual courage that is the radix of a creative personality: the courage to question what is generally accepted; the courage to be destructive in order that something better can be constructed; the courage to think thoughts unlike anyone else's; the courage to be open to experience both from within and from without; the courage to follow one's intuition rather than logic; the courage to imagine the impossible and try to achieve it; the courage to stand aside from the collectivity and in conflict with it if necessary; the courage to become and to be oneself.

A correlative characteristic of the creative individual is that he knows who he is, where he wants to go, and what he wants to achieve. The truly creative person has solved the problem of his own identity. Furthermore, he has a strong sense of destiny about his creative striving which includes a degree of resoluteness and almost inevitably a measure of egoism. But over and above these

136 MacKinnon, lecture, 5 April 1978
traits is his belief in the foregone certainty of the worth and validity of his creative efforts. This is not to say that creative individuals are spared periods of frustration and depression when blocked in their creative striving, but only that overriding these moods is an unquestioning commitment to their creative endeavor.

In this report, emphasis has been placed upon the generality of our findings. What needs to be equally emphasized is that no two creative individuals are exactly alike. As I have written on another occasion, "there is no simple mold into which all who are creative will fit. The full and complete picturing of creative individuals will require many images. But if, despite this caution, one still insists on asking what most generally characterizes the creative individual as he has revealed himself in the Berkeley studies, it is his high level of effective intelligence, his openness to experience, his freedom from crippling restraints and impoverishing inhibitions, his aesthetic sensitivity, his cognitive flexibility, his independence in thought and action, his high level of creative endeavor, and his unceasing striving for solutions to the ever more difficult problems that he constantly sets for himself."

Irving A. Taylor reports a variety of characteristics attributed to the creative personality. These include:

- Internal state characteristics (internal nexus of control, high ego orientation or high ego control, intuition, introversion, autonomy, and hedonism)
- Drive characteristics (intensity, high achievement, motivation, persistency, tenacity, and turbulence)
- Cognitive and intellectual characteristics (abstract, theoretical, complex, aesthetic, humorous, intelligent, and visionary)
- Personality characteristics (novelty, stimulation-seeking, flexibility, immediacy, sensitivity, discernment, holistic perception, integration, and fluency).

Taylor then isolates seven characteristics most relevant to transaction (creativity). They are:

**Openness.** Openness refers to the accessibility of large amounts of information both internally and externally without defensive screening. It certainly includes awareness and sensitivity, adaptation, and flexibility, tuned receptivity, tolerance of ambiguity, and acceptance.

---

of unusualness.

**Internal System.** This involves a highly structured system of internal hypotheses as to the nature of events, particularly those with which one is concerned. Relevant to it are highly structured hypotheses, empathy, and intuition, synthesizing formulations, fluent structuring, and a unique ordering style.

**Drive.** The drive involved in transaction involves spontaneous energy, high aspiring, achievement level, committed involvement, intense attitudes, and peak experiences.

**Internal Resources.** Sufficient resources include intellectual capabilities. These may include cognitive complexity or the ability to handle large amounts of information, sufficient intelligence, cataloging and implementing abilities, special skills and techniques, and the ability to handle remote associations.

**Internal Control.** The experience of causing things from an internal nexus of control rather than being externally controlled is essential to transaction. What is perhaps most important is the perception of the source of control as being internal, as well as the development of internal discipline, plans of self-operation, and sensitivity to control forces.

**Courage.** Risk taking and the necessary accompanying courage is involved in transacting since designing, rather than being designed, by one's environment frequently places one in a minority position. Some of the characteristics hypothesized to be related to courage are adventurousness, novelty-seeking, stimulation-seeking, attraction to controversy, and independence.

**Creative Problem Discovering.** It is suggested that creative people tend to gravitate toward or formulate strategic questions or problems that may have been neglected or overlooked by others. Probably the ability to recognize a potentially rich problem area that will open the door to larger problems is a generic approach to problem discovery or creativity, i.e., an approach that generates additional ideas wherein fruitful outcomes may result.
APPENDIX C

Excerpts of Diaries

Excerpts of the Diary of John Whiteley, Harvard, Massachusetts, 1878. Note: John Whiteley was born April 5, 1819, died August 12, 1903. Age 84 years.

Sunday - March 3, 1878 - Our meeting is very thinly attended by those in body. But the Angels are with us - and we have a very good time. Everyone present - excepting Bertie the boy - had something to offer.

Shirley - Massachusetts Tuesday - March 5, '78 - In Boston and Charleston on Business. While there I go to hear Ingersoll speak on skulls and bones, and after completing business in Boston, I take in an art exhibit.

Wednesday - March 6, 1878 - Boston, Went to Nichols to see the Photo-electric typing method - and also Forbes Chromo and Lithographic Establishment. Wonderfully interesting. Do errands then on to Salem. Called on some people - then to museum and Old First Church. Built in 1620.

Tuesday - March 12 - Attended spelling bee - quite enjoyable time.

Saturday - March 12 - Placed order for broom labels - one ream blue paper - 7600 impressions.

Friday - April 5, 1878 - Boston. My birthday - 59 years old - and yet know so little. Well, there's still time to learn and to do and be good - Hope I may learn something from my experience during this trip - What a hurly, burly this world is.

Sunday - April 14, 1878 - ... letter respecting war feeling in Europe - which I read in meeting. ... read Elder Frederick's article respecting the war in Europe.

Monday - April 15, 1878 - ... Received notice from the Secretary of the Commonwealth that my Commission as a Justice of the Peace has expired - and is renewed by Gov. Rice.

April 17, 1878 - Boy arrives - Thos. B. Cevas, 17 years old - Belongs to a Rechabite Order. Homesick, won't eat and he writes for money to return to Washington, D.C.
April 24 - Boy visits Elder John. He tells him of his troubles.

Monday - May 20, 1878 - Visit from Lorenzo D. Grosvenor - asks me to endorse a certificate from Elder Giles B. Avery - that I open an investigation to clear up his character or give him a written statement of reason why he was dismissed from society, and is now kept from a participation in gospel privilege. Threatening dreadful curses on Society if it is not attended to - and especially an exposure of my own misdoings as charged by a drunken man he had taken care of - and which he had made enquiries into, verifying some of the facts - that corroborated by a trance medium. All of which he was requested to open to the ministry of Mount Lebanon, or to communicate to me in writing - verbally or in any other way, if he felt a duty respecting it. Another instance of his blackmailing instincts - for which there can exist not a shadow of reason.

Thursday - May 23 - Bro Abraham has a vision of which he gives me a memorandum.

Wednesday - May 29, 1878 - Go to Boston on various errands. Buy a panama hat. Buy a little over a ton of broom corn.

Friday - May 23, 1878 - We have a singing meeting. Francis present - and his Indian Spirits sing to us. Affording much pleasure to the young especially who have never seen or heard much in that way.

Sunday - June 2, 1878 - We have a good gathering in meeting and a very good inspiration - Francis unites the first time - and near the close speaks and sings for three different spirits - the last time for his twin brother - Who expresses much joy and thankfulness for the kindness shown to Francis since he has been here with special reference to the labors of last week. The squaw sings very sweetly indeed of Mother Ann and her blessed gospel word.

Thursday - June 6, 1878 - Visit Ministry. Meeting after supper and a very good old-fashioned time it is. Francis speaks for numbers of Indians and other spirits. The most interesting time we have had in a long time.

Wednesday - June 12, 1878 - Took Elders and Eldresses visiting to Boston sight seeing.

Tuesday - June 18, 1878 - Elder F. W. Evans and Brother Ernie Bretaner from Mt. Lebanon visit Harvard. At meeting the visiting brethren explain to us the recent Materializations at Mt. Lebanon, quite an interesting time.

Wednesday - June 19, 1878 - Charles, a chance to talk with me considerable today.

Thursday - June 20, 1878 - Charles comes in and finishes his
story about himself and Joseph Miller?!!! A person born through
the ravishment of a married woman by an Indian. Charles had a
personal acquaintance with Joseph.

Thursday - June 27, 1878 - The memories of Mother Ann and the
ey early Shakers is kept alive with the reading of the history of
Alfred, Maine and other items that relate the early history.

Friday - June 28, 1878 - Some of the sisters and Brothers went
by steamboat to New York City. They went there on account of
the cheapness of the trip and to get the steamboat ride.

Sunday - June 30, 1878 - Brethren from Harvard go to Shirley for
meeting. A very goodly number follow and we have an excellent
meeting.

Sunday - July 21, 1878 - Visiting at Enfield, New Hampshire.
Singing Meeting at 9:00 and Public Meeting at 10:00. Many
spectators, more than expected, lively exercises, two sprightly
marches; face in, sing and speak - then sing slow marches.
Visiting meeting at 2:00. Three circles, one of brethren and
boys, one of young sisters, the other of young girls. At 6:35
Standing Meeting - lively exercises.

Tuesday - July 23. Return from Enfield to Harvard. Because
there is a two hour wait for the train, I go to the art exhibit
- see some very fine paintings ... the artist present and
very pleasant as a story teller.

Friday - July 26, 1878 - Eldress Sophia over to see the Sisters
respecting Sarah Ann Grover's being readmitted.

Friday - August 2 - Take the girls to ride. Start about 7:00 a.m.
Harvard to Groton Center. Call on friends, sing, play, visit
Shirley (Massachusetts) have dinner, visit North Family, Church
Family. All well, pleased with the outing.

Tuesday - August 13, 1878 - Have labors with Francis and David
on the tobacco question. They both promise to leave off the
smoke.

Saturday - August 24, 1878 - Make six brooms to take to the
Mechanics fair in Boston.

Wednesday - August 28, 1878 - Went to Boston to enter brooms in
the fair. Have a communication while standing on the street
from some (Sarols?) perhaps Eldress Sally Loomis, by a friend
of Foster the great medium.

Wednesday - September 11, 1878 - Trip to Boston with some of the
sisters, pleasure trip, and shopping. Hog Brown and Taylor,
Jordin Marsh, Lewis Brown, Gross and Struus, William and Evertts.
Dine at the Union Coffee Rooms. Sight seeing, etc. Get a copy
of the Atlantic and read the five chapters of Horace Scudders,
House of Entertainment to the Sisters in the evening.

Tuesday - October 4, 1878 - Sister Lucy Clark comes in to see us in the evening, she is 75 years old today. I make her a present of a nice light broom made for the occasion.

Saturday - December 14, 1878 - After breakfast go to see Elijah's new arrangement respecting the warming of water for the stock to drink at the barn, it is a very effectual and economical arrangement indeed.

Wednesday - December 15, 1878 - Christmas. We observe the day in our usual manner. Meeting at 10 O'clock, quite lengthy and exceeding good. Met with the Elders at two. I do considerable reading through the day. At seven we meet at the office with the Elders and trustees and have a pleasant time considering our conditions.

DIARY OF DELMER WILSON, 1888, AGE 15

Excerpts. Spelling and grammatical errors have been copied verbatim.

February 10. I have 21 head now. The cows are doing well.

Sunday, February 12. Weather is fair. Today there was a good meeting. The ministry was there. I turned my young stock out in the yard to sun themselves because it was nice and warm.

Monday, February 13. Today I cleaned out one of my calf pens. It has been pretty warm today.

Tuesday, February 14. Today I cleaned up the floor front of the calves. I carried up my slippers to be sewed up. Amanda and Sienna was down to the barn this noon.

Thursday, February 16. The heifer's calf is getting along pretty well. Her bag has not been very bad off.

Friday, February 17. Lucy's calf is a week old today. It is getting along pretty well.

Wednesday, February 22. Got one egg down to the barn today.

Tuesday, March 6. Today I have been hauling up shavings from the mill to the wash house.

Wednesday, March 7. I have been hauling up shavings and I hauled down some dry wood to the mill. Today Elder William sold a calf to Thurston. Also I began giving cows meal today.

Friday, March 9. Today I carded every one of the cows. It took
me over an hour.

Saturday, March 10. This Saturday has been a very nice day not like the others. I took the corn down to the mill to be ground. One bag for the kitchen, two bags for the cows, two bags for the oxen.

Friday, March 16. I carded the cows today. Ephran was here today. Hart went down to the barn to see the cattle.

Sunday, March 18. There was a good meeting today and night. I did not get round to card the cows today.

Tuesday, March 20. This morning I gave the cows some meadow hay but they would not eat it. I did not card them.

Thursday, March 22. I have been sawing out shingle binders all the afternoon. The hired men were down at the mill to work. The heifer calf is six weeks old today.

Monday, March 26. I carded the cows. I have four calves to the barn and they are all sick. One of them is kind of sick.

Thursday, March 29. I cleaned out Amanda's hen house this afternoon. I carded the cows. This morning I gave the cows some cats and they ate it all up.

Friday, March 30. This forenoon I tapped 74 maple trees down in the horse pasture and they run pretty well.

Sunday, April 1. This morning I went down to see the sap trees and the buckets were almost full. The hens laid 9 eggs today.

Monday, April 2. Pliny, Howard and I went sapping down to the horse pasture. Two casks. Myrtle calved.

Sunday, April 8. We got most three pails of milk this morning. I have three calves to the barn. Myrtle, Blackie's and young Spunky's.

Wednesday, April 11. I have to work on my jig saw.

Monday, April 16. 16 eggs. This morning the sisters and I went down to the cow pasture. We hauled cut four barrels. Eldress Lizzie went evaporating. The holder most full. I hauled up four barrels.

Wednesday - April 22. I have been helping Foster shingle the hen house. He has got the north side shingled.

Tuesday, May 1. I began on Serena's garden fence today. I set two more traps today. The sisters have ordered some onion seeds for me.
Wednesday, May 2. My seeds came tonight.


Friday, May 18. This afternoon I attended the boiler. I gave one of my calves some coffee grounds.

Saturday, May 26. This afternoon Elder William and I have been working in potatoes about three acres. We have been spreading manure in the first field.

Friday, June 8. Finished planting potatoes. Boys clean the barn. I played ball today. Boys went down to the pond.


Wednesday, June 20. This forenoon I have been shoemaking. This afternoon I have been to work on my mill.

Friday, June 22. I have a new pair of shoes. Today Howard and I raised an observatory up on the garden hill.

Monday, June 25. Elder William, Alva, and I went in the saw mill to work sawing. The boys went milking this morning and I worked on my jig saw. Howard and I took two calves up to the pasture. This forenoon we howed corn. This afternoon it rained. I worked on my mill.

Saturday, June 30. I made the cows names this afternoon. School ended this noon. They have got through in the barn for the present. I put a lock on my shop door. The boys went to the pond.

Tuesday, July 3. Got in the first load of hay today this year. I put up the cows names today. The boys go to the pond.

Sunday, July 8. Meeting today. It is my birthday. Had presents from three friends.

This forenoon there was a visiting meeting. This afternoon there was a good meeting and I spoke. In the evening we went up to the office for a singing meeting.

Friday, July 28. Elder William cleaned up the engine room at the herb house. I have been working on my jig saw.

Tuesday, Aug. 7. I mended a chair for the office kitchen.

Thursday, Aug. 9. This morning I went to Lewiston with Elder William with a load of rye. The cows got out of their pasture and into the wheat.
Tuesday, Aug. 21. Caught a skunk today. Skinned it.

Wednesday, Aug. 22. Today I tried out some skunk grease.

Monday, Aug. 27. This morning I killed 25 chickens.

Wednesday, Aug. 29. Laurentis and I have been dipping shingles in whitewash today.

Wednesday, Sept. 5. This afternoon Elder William went to Lewiston with four of my calves. Ed and I have been laying a floor in the woodshed.

Saturday, Sept. 8. I helped lay a plank floor over to the shed.

Tuesday, Sept. 11. This forenoon I made a sawdust chute.

Wednesday, Sept. 12. Elder William went to Lewiston to enter things in the fair.

Thursday, Sept. 13. We went to the fair with Elder William, Lorentis, Herbert, and Gustavus.

Wednesday, Nov. 7. School started today but we did not go. We picked apples down at the first field.

Thursday, Nov. 8. We went to school. I got beans and cabbage in.

Thursday, Nov. 15. The supervisor was in school today.

Tuesday, Nov. 20. This morning I turned the young cattle out and at night they would not come in. I got the barn cleaned out the hen house.

Wednesday, Nov. 21. This morning went skating on the mill pond -6 above zero. Got through hauling manure. I turned the cows out this pm.

Saturday, Dec. 1. I sewed up Edwards boots this afternoon.

Sunday, Dec. 16. There was a good meeting today. Tonight it is the front rank's turn to speak. Frudies birthday. I wrote her a letter.

Diary for 1894. Age 21.

January 1. Elder William was at work at the mill for a part of the day. He is not very able yet after his two week sickness. I have been at work at the paint shop on Eldress Lizzie's medicine cabinet about 5 feet by 7 feet by 22 feet deep.

January 2. Worked at the wood shop loading lumber to go to the city.
January 4. I have been at work in the shop on the cupboard. I cut Laurentis's hair. He paid me 15¢ I also cut Plinley's.

January 5. I went down the road to collect a few small bills. No school this pm.

January 6. Boys put some mow hay on ice. We are going to try it instead of saw dust.

January 10. I finished loading Scott's team. He started with four horses and a load of 3,000 feet of board, 51 courses high. He got home around 7:00 pm. This forenoon I got out some finish for the medicine cupboard. I worked on it in the afternoon.


January 15. I have been helping Elder William finish off an order of measures. I sawed out some stuff for my shop's circular saw.

January 16. I helped Elder William finish some measures. We filled the order, 7 dozen half bushels, 3 dozen two quarts, 3 dozen one quarts. I sawed off some stuff for a wood sled for which Samuel has asked me. Elder William and I get a barrel of mill oil up into the carding room, gross weight 4501 pounds. The cheapest he ever bought, 15¢ per gallon, $7.50. I put some sawed cherry up in the carding room to season.

January 21. No meeting in the evening. I made the ministry sisters a visit. I learned that there is a community of people in the west, I think Iowa, that are doing well. They are similar to Shakers in something.

January 22. I copied off a piece or article on a community in Iowa called the Amana Society. It was organized about 33 years ago. Started as an experiment but is no longer so for the males which number --- (?) males are courted and prosperous in this new life. I do not understand their religion. They are also called the Community of True Inspiration.

February 4. Tonight I am tending out on Thomas. I stay in my room and go down and give him medicine every hour during the night. This is the first experience of this kind I ever had. I have sat out just one night in my life and that was with a horse.

February 5. I sat up all last night. My business was to give Thomas medicine every hour and accordingly I was in the hallway every time the regulator struck the hour. I had a lunch at 1:00. The rest of the time I read continually from nine until
nearly six this morning and never felt sleepy a moment.

February 10. Chelis and I have been at work to the mill. I am making a sand roller to smooth the bottoms.


February 15. We have found that the new sand paper roller which I made was a success indeed... We used about 12% worth of sand paper and smoothed 750 bottoms. It will do the work of ten men and better.

February 17. I planed out 50 feet of pine boards and took them down to Clark Burges to have some pully rims for our band saw which I am going to build.

February 24. I have got the frame of the band saw done. I have named it the masterdon.

February 27. I am reading Nick of the Woods, a story of 392 pages.

March 4. I copied off an article on communism for Elder Abraham.

March 12. This pm. I mended a mince meat chopper and made a lock plate for the door at the wash house.

March 17. I discovered a four inch break in the new saw blade. This is the third one in about six years and we think it is owing to the swing table which hangs from the top.

March 18. We had a very good meeting this pm. I spoke out with more feeling than usual. I had an extra gift and feelings were unbounded.

April 25. I sawed out an inch and quarter white oak rocker with the band saw. It worked to a charm.

April 26. I began to make the express wagon in the body shop.

May 15. The fishing season opened this morning. Early John and I were up at 2:30 and had the boat in the pond at 3:00. At 5 O'clock there were eleven boats to be seen. We did not get a bite but a woman there caught one.

June 10. I read a number of chapters in the Testament and Bible. I find it is hard to speak in meeting without devoting some time to study and thought. Nothing can live without food.

June 16. Eldress Lizzie and Serena return home from Canterbury and Enfield. The young sisters put up pretty mottoes in the dining room, Welcome home and No Place Like Home. They were made of paper.
July 1. I answered Eddie Pierce's letter urging him to return to his old soul saving work. Time will tell.

July 8. This is my 21st birthday, a day of much thought yet proved to be little different than any other. I received a few tokens from my dear friends. This afternoon in meeting Elder William spoke for love for me as it was a rare occasion for one to come of age on our side of the house. I spoke twice.

July 17. Eldress Lizzie is painting the meeting room hall.

July 24. This pm. I went blacksmithing and made two chisels, a screw drive and drew out a hammer. Eldress Lizzie is painting the halls.

August 2. I helped Eldress Lizzie fix a boot for the express wagon which we use peddling, she was varnishing it.

August 6. I boiled and bent some handles for some oval boxes. There is a rage for them at the Springs.

October 2. I took my collection of vegetables over to the fairgrounds. Free pass. There were four or five different collections, all for the same premiums and some good ones. Mine lacked quantity more than quality. But I don't know. It will be quite a show.

October 3. Edwin and Frank went over to the Glocester Fairgrounds with us. I went to see my collection. No prize but superior merit.

October 21. We had a good meeting this afternoon. I spoke with unusual feeling and conviction realizing how much I am indebted to God for the mercy and love I find in this way. Our turn to speak this evening. This afternoon I shed tears while speaking. Elder William did the same also some of the sisters. Awakenings are good once in a while.

October 30. Elder William evaporated all day and Eldress Lizzie will run it till about midnight.

November 5. Finished making cider. We cleaned up the mill and the men hauled up all of the cider. They have made 3,269 gallons.

November 6. Finished cutting apples tonight. That makes 19 cutting days, ten bushels per night, 190 bushels.

November 14. Telephone man came from Portland and put up a telephone from the office to the kitchen and Eldress Lizzie's room. I returned the first message sent by him to the office. It cost $40.00.
November 15. Chelis and I are building our greenhouse. We put up the ridgepole. Mel took the telephone man to the station for Portland and got a pair of horses sharpened.

December 16. It is Prudies birthday and Thomas has to give her some love in meeting. The first time he has spoken in meeting since I have been here, 13 years, except to thank the meeting for love bestowed on him.

December 17. I am reading a book Amanda gave me entitled Strange Sights Abroad.

December 24. I am a church member. I signed the covenant in Elder William's room. So did Clara Stewart.

December 25. A merry Christmas. And it would have been a bare one had it not snowed three inches last night. I received four lovely booklets from friends. We had a good oyster stew and a good meeting. Chelis and John spoke I did not.

December 26. We had the first reading meeting of the season. Elder William read a Christmas Ghost Story. Sarah began to read Uncle Tom's Cabin.

December 29. Chelis and I worked at the barn. We double bordered behind, bordered up the front to keep out the drafts and cold. The cow mash is real warm and does not freeze at any time. I do not mind the cold much myself but I cannot help feeling for the dumb.

December 30. A good meeting this pm. Almost all the young spoke including myself. Our turn to speak this evening and I believe we all spoke well. The first time I ever spoke from a text, A new commandment I give unto you that ye love one another as I have loved you, that ye also love one another.

(The following are notes Delmer made to himself at the end of his diary. He called these notes -- Memoranda for the year 1891).

October 7. I took a collection of vegetables over to the Glocchester Fair but only got three tags of superior merit. It was new work for me so I didn't know the extent or kind of the collections. C. Haskell did not have a great amount of any kind but it was nice. Whether there was anything very large, one thing that took the committee's eye was the growing celery, two kinds of lettuce, kale and peppers. He had over 20 or 21 kinds of vegetables, cleaned and washed in good shape. Wade had 10 varieties of about one and a half bushels each kind and well arranged which is quite a feature. There was only two premiums. Two or three others besides me failed. Now I have an idea of what is wanted. Part of my exhibit was on the floor. This was bad for show. I must be in time in the future to get a good position in the hall which is too small for the display. I had 15 different kinds of vegetables and 21 varieties: squash 76 pounds, pumpkins 44 pounds, tomatoes 1 - 37 ounces, potatoes two kinds, onions, cabbage two heads, mellons, beans, carrots,
parsnips, beets, turnips, rutabagas, English, sweet corn, and cucumbers. If we get our greenhouse to work we can have some green stuff for the fair.

Diary for the year 1900. Age 27.

Thursday, April 17. I take charge of the farm for a year perhaps more.

Saturday, April 18. Ada and the girls transplanted a thousand tomato plants for factory use.

Thursday, May 3. I wrote to 12 parties about tomato plants.

Saturday, May 5. I took two cans of cream up to the factory and went up to McFalls and engaged five stores for tomato plants.

Friday, May 11. We transplanted more tomatoes tonight, almost 70 dozen, only 40 more to go.

Wednesday, May 16. Tonight several of the family received pamphlets from the Christian Herald, New York, requesting aid for the Indian victims. I got permission to try and take up a collection for the sufferers. It is awful. Hundreds are starving and dying every hour for want of food. This evening I collect $2.90 and promised more.

Thursday, May 17. I continue my collection this morning. Following are the givers: Aurilia $1.00, Sarah .50, Nellie .50, Serena .50, the girls by Serena, Clare Chase 1.00, Laura Dailly .50, Amanda 1.00, total of 5.00 plus 4.00 is 9.00. Eldress Lizzie .25, Ada .40, Walter .20, Chase Hall 1.50, Mary Davis .40, Frank .20, Flinley .25, Charles Johnson .06, six little girls .70, myself 1.04. This was collected of 22 people and everybody wanted to do something. A good cause.

Friday, May 18. I shipped 25 dozen tomato plants to H. J. Bongs of Norway (Maine), the first taken out of the beds for sale.

Tuesday, May 22. Eldress Lizzie went to Portland. Prudie returned with her tonight well satisfied that there is no place like home especially one with so much faith.
APPENDIX D

A DISTINGUISHED CONTEMPORARY'S VIEW

Canterbury in 1840 - A Distinguished Contemporary's View. Edited and with an introduction by Theodore E. Johnson, from Shaker Quarterly - Vol. IV, No. 2, Summer 1964. The distinguished visitor is Governor Isaac Hill.

The novel artificial water power. Our next object of attention was the artificial water power created by the first family at an almost incredible amount of labor and expense. The Shaker Village is situated at the high point near the sources of the Suncook River running into the Merrimac from the Northeast and above the mill seats found upon the stream. Here, where no natural stream ever ran, they have created a more permanent water power than can be found within the distance of ten miles. To make this water power effective in the dry as well as in the wet season, no less than eight artificial ponds covering from five to thirty acres each have been created, one rising above the other and each furnishing a stream large enough to carry different mills and factories. To feed the stream with a constant supply of water there was not at first any considerable stream or body of water. It was commenced by damming around a small meadow in which the melting of the snow in the spring caused the water to collect. Other reservoirs created in the same way succeeded to the first until a permanent and highly valuable water power was completed by the purpose of a considerable swamp of morass uphill at the distance of nearly two miles which was dammed up to retain the water in the same manner and from which a trench or ditch through the rough stony ground was formed for the whole distance. The dams constitute in some instances two sides and nearly half a reservoir have been made by a prodigious labor in the collecting and arranging stones and gravel. It being found that the water would ooze through the natural ground that has been dug up to give place to other materials as gravelly clay and rock which should make the dam water tight. The immense work done to create this artificial water power being at a distance from any traveled road and from the villages of the Shakers has probably never attracted the attention of a hundred persons who viewed and estimated its magnitude. We know nothing of the kind effected by individual enterprise anywhere within the limits of this state. It is true that there are works connected with the water power of factory establishments that have cost more money but there are none where such labor has performed and such expense incurred merely for the purpose of the individual domestic convenience of those performing the labor.

With stoves of their own invention and construction, with
rooms fully furnished the brethren can obtain double the effect from half the quantity of fuel generally consumed.

Rising to the outlet of the third pond from the foot is an extensive building 80 x 40 feet and three stories high, a building framed of stouter timber than is often found in the largest structures. This building covers a grist mill with four rows of stone of which one is set of burs for the manufacture of flour. This mill is visited by customers ten, fifteen and twenty miles distant who are unable to find another so good and it is remarkable that the Shaker stream made upon the dry land fails not for water when others, upon running natural streams, give over their customers in time of drought. Under the same roof and moved by the same wheel is a mill for sawing common boards from logs, a circular saw for the slitting, a machine for sawing pail staves, a mill for grinding malt, also a shop for manufacturing measures as half bushels, pecks, etc. The great wheel which moves the machinery of this building is 34 feet in diameter and the space in which its under part traverses is drilled out of solid rock some 18-20 feet deep of twice that length and some 12-15 feet in width. The dust of the several saw mills falls directly to a basement into which, on the opening of doors, cart and open are backed to carry it away for the profitable uses to which it is applied. The surface slabs of the sawed lumber are all preserved for fuel or some other economical purpose so that no fragment on the premises of the brethren is left to be wasted. The fourth building above on the stream erected before the mill below is 40 x 30 used as a factory for various purposes. In this building, when visiting the Shakers on a weekday, we have always found the venerable Francis Winkley at work. He is 82 years of age and served his time as an apprentice at the smithing business at Dover, New Hampshire about 60 years ago. He commenced with the Shakers between 50 and 60 years since and in that time has manufactured with his own hand 12,000 iron candle sticks. He has been for many years the efficient financial manger of the whole establishment and in that management has discovered talents which might have qualified him as an efficient head of almost any government.

The machinery of this building is of an age of twenty years. Here the Shakers have made the improved pails which have so much been used and admired throughout New England for their perfection and durability.

The fifth building upon the stream was the clothing works where the beautiful woolen cloths and flannels manufactured by the sisters are fulled and dressed. Here were samples of all wool, mixed worsted and cotton cloths that would have done credit to the best modern manufacturing establishment. Calvin Goodall had charge of this clothing establishment. He was educated to the business here. He made use of the teasels in raising the napp on the cloth and he exhibited to us a specimen of that article which he had improved by the selection of seed, the points of the prick being turned so as to strike the surface
of the cloth in the best direction and the head being a perfect cylinder instead of a cylinder split in the middle of half the size. From repeated observation we do not doubt that many vegetables have been and may be perfected in shape, size, and quality by attention to the selection of seeds, in the preparation of the soil and the care of cultivation.

The sixth building on the stream covered a tannary and a bark mill in the basement story and a mill for the manufacture of shingles and a threshing machine room. The last machine was an invention of the Shakers and had been used by them for threshing their grain more than twenty years ago. The old machinery and gearing of this mill had just been taken down and a self-acting arm or a wheel made of tubes of cast iron, a recent invention, had been procured to supply their places. The head and fall of this mill is fifteen feet. The water is forced into the iron tubes which revolve under the surface of the water. This may be the Water turbine invention of the Shakers, procured from the Kentucky Shakers. A small quantity of water pressing continuously from above is the only requisite and where there is little head and fall, the wheel works well with abundance of water. The two wheels have been thought to be a great improvement where they have been used. The works at this mill have been constructed under the immediate direction of Elijah Brown who had derived his mechanical knowledge with the Shakers and was both tanner and millwright. The mill was not only undergoing an entire change in the application of the water power to a different wheel, but a more copious water channel was constructing through the rock.

Preparation of Vegetable Medicines. The botanic garden and herbarium at the Shaker's First Family contains probably a greater variety of the useful medicinal plants than any other establishment of the kind in New England. This garden was commenced by Thomas Corbett, one of the family, and a self taught botanist and physician, twenty four years ago. It has been enlarged by the introduction of new species and new varieties until it covers a full acre and a half. We have before us a catalogue of medicinal plants and vegetable medicines prepared in the United Society of Canterbury, New Hampshire, printed at Shaker Village, consisting of about two hundred varieties. When this business was first commenced by Doctor Corbett, the editor of the Visitor well remembered the aid he gave him in the sale of his vegetable preparations in connection with the celebrated rocking truss invented by the same self taught disciple of Eucalessculapius. The trusses have since become extensively used and are one of the very best articles of the kind that were ever invented to alleviate the pains of humanity.

The vegetable preparations have grown gradually into an establishment more extensive than any other in the United States. The vegetables were introduced in the shape of dried leaves pressed into a solid cake weighing a specific quantity and
shaped like a brick. When these articles of different kinds such as camomile, johnswort, rose flowers, saffron, coltsfoot, elencampine, gold thread, horehound, sage, summer savory, and the like were first introduced and left at the apothecary stores in Boston, they were the food of merriment to some of the regular physicians. Gradually, however, Doctor Corbett had succeeded in their introduction until the prejudice of the doctors has been so far conquered that many of the faculty are constantly applying for them. The medical establishment of the Shakers is not confined to articles raised by themselves. They purchase all varieties of vegetable articles of extensive use in the Materia Medica. As a single item of purchase at one time was mentioned six tons of alnus fulva or bark of slippery elm which was produced from the northern part of Vermont and Canada. This article like many other barks and roots is pulverized into fine flour and pressed into pound cakes. It is a most valuable medicine to be used in influenza and pleurisy, dysentery, strangury, and inflammation of the stomach and bowels. Not only as a medicine, but as articles of extensive family use in cooking, are the preparations of vegetables invented by the Shakers, two of which are of great value to the inhabitants of cities. These are sage and summer savory, two articles of vegetable growth which impart the finest flavors to various items of cookery. They are preserved and pressed into compact form that they may be carried anywhere and used with as much convenience as a compressed hand or manufactured roll of tobacco.

In all these productions and preparations and as in almost every enterprise they undertake, the Shakers find their account to be a constant gain. If others undertake to imitate their inventions and improvements, by the time their articles are finished they will find the United Brethren in advance of them in some other improvement which always makes theirs to be preferred.

The Great Barn. The principle barn of the first family, it is believed, is the largest building of its kind in the state. It is 200 feet in length, 35 feet in width, and 22 feet posts. This barn is unlike that of the Shakers at Alfred, the entrance to which is on the gable end, but the immense amount of hay with which it is filled is raised from the load in the floor by means of an iron grapple moved by a teacle and falls by horsepower. The machinery applied to a large load of hay will dispose of it in less than a forth part of the time in which the smartest man can lift it to the mow with a pitch fork. As a curiosity in the barnyard is an immense trough into which the water is brought half a mile by means of iron pipes for a portion of the distance procured from the city of Philadelphia. This trough which is 30 feet in length and 4 feet in diameter is cut of white pine log. It has been in use for its present purpose more than thirty years.

The first family has a fine Durahm Bull brought from the state of New York when a young calf, called Duke Leo, which
girted on the first of April last, when the town inventory was
taken, at the age of twenty-one months, 7 feet and 1 inch and
weighed, when two years old, in the month of June 1, 440 pounds.
A calf almost the exact picture of this bull, five weeks old, was
the largest and handsomest animal of the cattle kind that we have
ever seen in this age. His length of body was as great as that
of a yearling and he would probably weight, at the age of weeks,
nearly 300 pounds.

A great convenience about the buildings of the first family
is their stone walks by which they pass high and dry from house
to house in rainy weather and when the mud or snow is deep.
These walks are made of large rocks with a flat and smooth sur-
face. A venerable, Shaker Michael Tucker, age 86 years, prepares
and lays down these stone walks alone. He goes to a distant
field, splits and hews the rough granite, takes a yoke of oxen
and alone loads, brings them home, and lays them down in their
proper places. They are so adjusted to the ground that the
frost has no favorable affect and under the operation of the old
man's hammer and chisel, they are made a walk, 3 1/2 feet to 5
feet wide, smoother than the common brick sidewalks of the cities.
Michael Tucker was for many years an elder in the first society.
He was a joiner and a carpenter by trade and worked at his trade
while an elder, for the head men and rulers of that church set an
example worthy to be followed by their inferiors. In the winter
when he is no longer engaged in the fields where the rough stones
are had, he is employed in the manufacture of window sashes and
other carpenter's work in a close comfortable shop where that
business is done.

Our attention was called to a plot of ground of about one
forth of an acre near the mill stream on which an old gentleman
was busy at work, Johnathan Lougee, 79 years of age, who had
been a Shaker ever since the year 1782. The present year, he
had undertaken to cultivate one of the most rough forbidden
spots on the whole premises, a gravelly and rocky knoll from
which the materials had been dug to assist in forming of dams.
He had succeeded admirably, as the spot had already yielded a
superabundance of cucumbers. Melons were also growing on the
same ground. Corn and potatoes were also there flourishing.
By the side and at no great distance from the old gentleman's
spot was a smaller plot which he had taught one of the orphan
boys, half a dozen years old, to lay out, plant and cultivate.
Out of such helpless orphans as these have the Shakas educated
and made men who are practically better qualified than the best
educated of the world's people for almost every useful business.

Their butter and cheese are of the very best quality. This
they consume almost immediately in their own households. Their
cheese, which has been kept over a year, is better than almost
any made in the country. In the making of butter and cheese,
they are very nice and particular none of inferior quality pass
from their hands. The butter made in the first family for
twelve years past has amounted to an average of about 33 hundred pounds. The second and third families each kept about a half the number of cows of the first family. Their butter and cheese are equally good and in quantity, not less for the number of cows. Going into the dairies, we approached nothing offensive in smell. Every part of the premises is as neat as a family, weighing each probably not much short of fifty pounds. The extreme drought up to the first week of August had the effect to reduce the quantity of milk two thirds. The pastures where the cows ranged are some of the best to stand drought in the country. Deacon Winkley was of the opinion that drought was about breaking up and there was a fine rain on the first afternoon of our visit. He remembered a revival of vegetation like a second spring after a severe drought in 1826 and thought it would be the same in the later part of our present summer.

Labor Saving Machinery for Haying and Threshing. In getting their hay, much use of their hand labor is saved by their revolving horse rake which is in part a Shaker invention. The greater part of the haying by them is treated as pastime. The exertion of much hard lifting is superceded by the machine for pitching the hay from the load to the mow. Their threshing machine which is carried by water is an old invention saving them much labor. Twenty years ago they used this machine which has been, since that time, a matter of patent to many inventors. They thresh, winnow, and clean at the same operation 100 to 150 bushels of grain per day. They raise annually 800 to 1000 bushels of oats which are used in their own family. These are thrown in quantity into a large bin and they sprinkle with fine salt. This prevents their heating and otherwise preserves them. The horses eat them with a better appetite so that the salt on them has the same salutary effect it has on hay when thrown not fully cured into the mow.

All three of the families have their own manufactures of fine wool and flannels. The first family keep about 200 Marino sheep and many of these give from seven to nine pounds of wool each. This is generally all spun and manufactured by the sisters of the family. There is a spinning genny at each family. These draw out from eighty to one hundred threads and whether the wool be warp or filling, a bell indicated with certainty the point of time when the twist is sufficient. The spinning the hand genny is an operation requiring strength and causing fatigue. Three females take turns by the hour, two resting on the light labor, while the other turns and tends the wheel. Hand wheels both for fine linen and worsted are much used by the sisters. On these they run the thread by the eye and the feeling of the fingers with great exactness. The cloth made from the thread of these beautiful spinners is fit to be worn by princes. The sisters manufacture extensively as an article for sale at all the families, fine woolen flannel drawers. These are disposed of at a profit in New York and other southern cities.
The oven which does the baking for some 150 persons at the
first family is a curiosity. It is constructed of firestone
on all sides three or four inches thick. A single heating in the
morning suffices for the day. In it first may be baked beans
with pork and pudding for dinner, then follow two batches of pies.
In the evening to be taken out in the morning breakfast, are fine
large loaves of brown rye and Indian, more grateful to the palate
when spread with new and made butter than the best manufactured
cake that was ever invented. 

Cooking and the Laundry. All cooking establishments of the
Shakers are constructed upon economical scale. They cook well
and they cook fast. The cook stoves copied from some patented
sample or constructed by their own ingenuity are the best kind.
Their establishments for washing, drying and ironing clothes
are of the most perfect kind. They have none of the common
fuss and annoyance of the usual washing day, or if they have,
it is so compacted and confined that very few persons are
troubled with it. The first family were about to introduce
horse power to do their washing to save human female strength
in turning the machine or rubbing out the garments by hand.

The most interesting improvement upon the premises of this
family was its beautifully flourishing apple orchard. Peter
Foster, contemporary with Parker and Willard of the First Family,
the shoemaker of the family, in the course of six or eight years
has made this orchard one of the finest in the state. The only
disadvantage it encounters is the declination to the north, opening
it to the rude attacks of old Boreas. But this evil, young
Foster has attempted to remedy by setting at no great distance
from each other a row of rock maple on the northerly and easterly
sides calculated when they shall grow to break the wind. This
orchard contains 700 grafted apple trees of the best varieties.
Some of the grafts, four, five, and six years old are already
in full bearing. The grafts and the trees themselves are green
and flourishing beyond any other orchard we have seen in the
interior. They have been nourishing and cherished by the single
hand of the young man who will be likely to witness for a series
of years the production from them of abundant fruit so that
the family will realize great profit in the sale, as they will
satisfaction in the home consumption of the great favorites of
all fruits.

If apples of ordinary quality are not held in so high esteem
for the manufacture of cider as they were formerly, the improved
grafts, the Greenings, the Baldwins and Russets are more in
demand in proportion to the quantities produced. A flourishing
apple orchard at the ordinary price of the best fruit in the
interior will yield an equal if not greater profit per acre
than almost any other production.
BIBLIOGRAPHY

BOOKS


Eades, Harvey L., Tailor's Division System - Founded Upon and Combined with Actual Measurements Containing Thirty Diagrams Reduced to Mathematical Principles. Union Village, Ohio: The United Society, 1849.


Gowan, John C. Trance, Art and Creativity. Northridge, California: By the Author, 9030 Darby Avenue, 1975.


Holms, James. Recipes, Maxims and Useful Hints in Farming and Other Matters of Economy. West Gloucester, Maine: By the Author, 1850.


ARTICLES IN JOURNALS

"Fifteen Years a Shakeress." The Galaxy XIII (1872) 36.

"Notes About Home." The Manifesto XXI (March 1861) 365.

Patterson, Daniel. "The Influence of Inspiration and Discipline Upon the Development of the Shaker Spiritual." The Shaker Quarterly 6 (Fall 1961) 246-258.

ARTICLES IN MAGAZINES


MONOGRAPHS

Calhoun, John B. "Axevolution, Tribalism and the Cheshire Cat." Bethesda, Maryland, 1971. (Mimeographed)


NEWSPAPER


REPORT


TRACT

MANUSCRIPTS

Poland Spring, Maine. Sabbathday Lake Library. Church Journal, 1877-1884.

- Aurilia Mace Diary, 1889.
- John Whiteley Diary, 1878.
- Delmer Wilson Diaries, 1888, 1894.

MacKinnon, Dr. Donald W. "What is a Creative Person Like?" Lecture at University of California at San Diego. 5 April 1978. (Mimeographed).

LETTERS


- Daniel Goodrich Papers.

INTERVIEW