Summer EARTH Adventure: Historic Perspective and Heritage Activities

An Honors Thesis (HONRS 499)

by

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Purpose of Thesis

Summer EARTH Adventure, an eight week summer camp experience for children ages 8-12, places participants in contact with the roles of children from centuries past. The discussion of Summer EARTH Adventure is based on the idea that the American summer school vacation was established to give families extra hands to work their farms when help was desperately needed. Complimenting the historical perspectives of Summer EARTH Adventure, this thesis explores heritage activities that will be implemented to illustrate early American livelihoods.
Historically, the American summer school vacation was established to give families extra hands to work the farm when help was desperately needed. Although families earned a living off of their farm during the winter months, the summer was the most productive time of year. Summer EARTH Adventure (SEA), a summer camp experience for children, was in part designed to illustrate the roles that children played during their summer school vacation in Early America. Each SEA session is based on a geographical location of the United States: North, East, South, and West. Activities for each session vary in accordance with the methods used by settlers and Native Americans in the specific area. Complimenting the discussion of the historical perspectives of Summer EARTH Adventure, the thesis explores heritage activities that will be implemented to illustrate the roles played by people of centuries past.

Kim Maisenbacher and her husband Dr. Paul Gaither bought Windy Knob Farm, the site of SEA, in 1993. In 1680, the land was granted to the John Clark Family. After obtaining the land grant, John Clark built a small wood frame structure on the easterly side of the property to house his family. Years later he built two windmills on the property, dubbing it Windy Knob Farm. After his family outgrew the wood structure, Clark built a 12-room brick house on the westerly side of the property. The bricks used to build the house were made from the property’s abundant clay pits. As a business, the clay pits made about one million bricks per year. Windy Knob Farm bricks were also used to build part of

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1 McPherson, Orpha, *Summer Activities of One Hundred Farm Boys and Girls in a Selected Area* (New York: Columbia University, 1939) 245.
2 Maisenbacher, Kim, Interview by author, 30 January 1996, Millis, tape recording.
3 Clark, John. “A Catalog of Manuscripts and Documents (of) the original works of John Clark, 1690 (?),” Millis Historical Society, Millis, MA.
4 Ibid.
5 Ibid.
6 Ibid.
7 Ibid.
8 Ibid.
the wall around Harvard Yard.  

The farm remained in the Clark family until Governor Christian Herter purchased the property in the 1930's. Herter went on to become Secretary of State under President Eisenhower and continued to have fresh produce and meat shipped from the farm to his residence in Washington D.C. The Herters sold the farm to Linda and Gordon Ramsey in 1981.  

The Ramseys operated a thoroughbred horse breeding and training stable, but outgrew the farm’s limited acreage and sold the farm in 1993 to Kim Maisenbacher and Dr. Paul Gaither. Besides being the site for Summer EARTH Adventure, Windy Knob Farm is presently the home of a diverse group of rare livestock and commercial farm animals for sale and personal use.

Today, the Windy Knob Farm goal is to raise animals in a healthy, natural environment and continue the tradition of good stewardship of the woodlands, wetlands, and wildlife. Continuing the tradition of Windy Knob Farm, Summer EARTH Adventure was created by Kim Maisenbacher to provide children with the opportunity to develop relationships with the land and each other that are based on respect and cooperation.

The activities selected for SEA are based on EARTH: Environment, Agriculture, Responsibility, Teamwork, and Heritage. Environment nurtures and sustains all life. Agriculture represents the essence of living in harmony with nature. Responsibility builds self reliance and character. Teamwork without competition creates enduring friendships. Heritage fosters respect for community, family, and self.

The heritage activities at Summer EARTH adventure consist of a variety of craft, cooking, storytelling, and investigative projects that foster respect for community, family and

9 Ibid.  
10 Maisenbacher, Kim.  
11 Ibid.  
12 Ibid.  
13 Ibid.
self. The activities teach participants some of the historical facts concerning early American life and help participants experience some of the daily activities of early Americans. The colonists of Early America had to work very hard to make a life for themselves in the New World. Children were expected to help their parents as soon as they were able. Four-year-old girls learned to knit stockings. Older girls helped with the cooking and cleaning. They churned butter, pickled beef, and baked. They spun flax to make linen and they made their own candles and soap. Boys worked on the farm, helping to weed and harvest the crops, and feed the animals. They chopped wood, fished, and trapped wild turkeys. They combed wool, separating the fibers, so it could be used later to make fabric.

As Windy Knob Farm is located in Massachusetts, activities from the East, Session 2, will be explored in the thesis. Sample activities for SEA session 2 are: butter churning, spinning, candle making, natural dyeing, soap making, sweet smells, and Native American cooking. Each activity described was selected for its enjoyment, ease of completion, and time requirements.

Activity: Butter Churning

I. Equipment (See Fig. 1-1)
   A. Whipping cream
   B. Bowl
   C. Butter churn
   D. Water
   E. Spatula

II. Background
   A. Cream is obtained from cow’s milk. After a cow is milked, the milk sets until the cream rises to the top. Afterward, the cream is skimmed off and skimmed milk is left behind. Why doesn’t cream rise to the top on our milk from the store?
   B. Buttermilk, the milky substance surrounding the butter chunks, is left over from
making butter.

C. Washing the butter is the process which rides the butter of the sour buttermilk taste.

D. Steady rhythm is necessary in churning because the butter comes faster and churning is not as tiresome. A song used to keep time while churning:

"Come, butter come. Come butter, come.
Johnny’s waiting at the gate. Waiting for his buttercake.
Come, butter come. Come butter, come.”

III. Procedure (See Fig. 1-2)

A. Pour whipping cream into a churn.

B. Begin churning with a steady rhythm.

C. Butter is finished when the whipping cream changes to a rough chunky consistency with a yellowish tinge. A watery, milky substance also surrounds the yellow butter chunks.

D. When butter is finished, pour the contents from the churn into a bowl. Gather the butter into one lump by using a spatula and pour the milky liquid out.

E. Wash the butter by pouring cool, clear water over it into a bowl and mashing the butter with a spatula. When the water turns milky, pour it out. Use several changes of water until the water comes out clear.

F. Add salt according to taste.

Activity: Spinning

I. Equipment (See Fig. 2-1)

A. One or more sets of wool cards

B. One or more drop spindles

14 Storer YMCA natures classroom, 47.
C. Uncleaned, unspun raw wool

II. Background
A. Fibers for Spinning
   1. Cotton, grown in warm climates, and wool are spun into yarn in much the same way.
   B. Flax, a long stemmed plant, is soaked in water and pulled through nails in a board. Afterward, the long fibers which remain are spun into yarn. Linen is the material woven from this yarn.
   C. Many other hairs, furs, and fibers can be spun into yarn. These may include buffalo wool, dog hair, goat hair, llama wool, angora, and rabbit fur.

B. Advantages of Wool
   1. Wool is water resistant and warmer than most other fibers; when wet it provides more insulation than other materials.
   2. Leather, used for garments by frontier Americans, is wind-proof and very tough; however, it is neither very warm nor very water resistant. Also, an animal must be killed to obtain leather, while wool can be obtained numerous times from one animal.
   3. Wool was easier for the frontier people to obtain since they could raise their own sheep. Cotton and flax, grown in the south, was quite expensive for people in the north.\(^\text{15}\)

III. Wool
A. Sheep can be sheared twice a year, fall and spring. Shearing once, only in the spring, yields a longer fiber, which is better for hand-spinning. Years ago one sheep might give two to six pounds of wool. Now with special breeding, eight to twelve pounds is common.
B. The curly nature of wool fibers allows them to bind together when spun. The

\(^{15}\) Ibid, 47.
longer the fiber, the easier it is to spin and the stronger the resulting yarn.

C. The natural oil in wool is called lanolin, which gives wool its water-resistant nature. Spinning wool before washing is called spinning in the grease, which is easier to do than spinning wool after much of the lanolin has been washed out.

D. The air spaces between the curly wool fibers and the strands of yarn in a garment give wool its insulating properties.16

IV. Preparing for Spinning (See Fig. 2-2)

A. Usually the raw wool is hand-picked first to remove burrs, pieces of straw, and other large pieces of debris.

B. The wool can then be dyed. The dyeing process, particularly if the wool is boiled, removes much of the lanolin. This makes the wool dry, brittle, and difficult to spin. Therefore, dyeing is usually the very last step in preparing the yarn for use.

C. Next, the wool is carded with large, wooded brushes having small wire teeth. This straightens the fibers, placing them parallel to one another, and removes more dirt and debris.

1. Place a small handful of wool in the middle of one card. Holding the other card on top of the first, with the handle pointing in the opposite direction, pull the cards apart, stretching the fibers. Continue this combing until the fibers appear smooth and parallel.

2. To remove the wool, turn one card around so the handles of both cards are pointing in the same direction. Lightly push the cards back and forth, rolling the wool. The wool rolls out near the bottom of one of the cards. Peel it off in a long roll, which is called a rolag. It is now ready for spinning.17

V. The Drop Spindle

A. The drop spindle is an ancient device, which has been used for spinning fibers since biblical times. Used across the ancient world and into the modern world by

16 Ibid, 48
17 Ibid, 48.
primitive cultures, it is still used in parts of the world today.18

B. A drop spindle is simply a 10- to 12-inch dowel with a knob of wood at the end. It can be made by sticking a knitting needle through a potato. American Indians used a longer stick and, bracing one end on the ground, twirled the dowel against their thighs and their hands.19

1. A starter yarn of 18 inches or so needs to be placed on the spindle. It’s tied to the dowel just above the knob, catching around the end of the dowel which protrudes from the bottom of the knob. Then it is brought up to the tops of the dowel, which is notched, and fastened with a half hitch.20

2. The rolag to be spun is stretched out somewhat thinly so about 6 inches of fuzzy wool hangs down. This piece should be pinched and overlapped against the fuzzy end of the starter yarn. Holding the overlapping pieces in one hand, give the top of the dowel a spin between the fingers as one would spin a top. This should fasten the new piece of wool to the end of the starter yarn with enough strength to support the weight of the dowel; thus both hands are freed.21

3. Continue to alternately spin the dowel and stretch out the rolag so a section of unspun fuzzy wool is continually getting caught in the spin. As the wool spins, let the spindle drop so the yarn continually increases in length. When the spindle is ready to hit the floor, stop, remove the yarn from both ends of the dowel and wind it onto the dowel just above the knob. Wind all but 12 to 15 inches, which again is anchored on the dowel. Continue this process, adding rolags as needed.22
4. When the dowel fills with yarn, remove the yarn and roll it into a ball or wind it around the elbow and hand, making a loop. Afterward, tie it in several places to prevent tangling. It can be washed and dyed in this form. A "niddy-noddy," a special wooden stick which is shaped like a capital I and 18 inches long, was used to make the loops. One full time around the four tips of the I measured off 2 yards of yarn; forty times around was a standard measurement for a skein of yarn, which was then 80 yards.23

Activity: Candle making

I. Equipment (See Fig. 3-1)
   A. Tallow
   B. Wicks (string)
   C. Double Boiler
   D. Ruler/rod

II. Background
   A. Early settlers were up at dawn, busy with their chores, because no precious hour of daylight could be wasted. At night the glow of the fire often provided the only light in the room. Candles were used very sparingly since candle making was a difficult job.
   B. The lighting problem often was solved by burning fat or wax which soaked or surrounded some kind of wick. Tallow for candles was hard animal fat, which came chiefly from sheep and cattle. A bull yielded enough fat to make 26 dozen candles.24
   C. A housewife never threw away any fat; she rendered and stored it in pottery crocks. In very early days, the family burned it in grease lamps for light; however, it was smelly and smoky. Thus, candles were better. In the home, making candles was

23 Ibid, 48.
24 Ibid, 49.
a job for women and girls.
D. Those who could afford them bought candles and soap from the chandler's shop. Chandlers also traveled from house to house making candles and were not welcome neighbors because candle making was a greasy, smelly trade. Since the materials, equipment, and parts of the process were similar they also made soap.
E. The chandler did not merely melt fat; he tried or rendered it by boiling so the fibrous material in it rose to the surface. Afterward, it was skimmed off. If the chandler was dipping candles, he would ladle the hot fat into a rectangular vat and allow it to cool some. Very hot tallow left a thick deposit on a dipped wick, or, worse, it melted the accumulation of earlier dipping.
F. Before 1750, chandlers made their best candles from beeswax or bayberry wax, which was obtained by boiling berries from the beach shrub.\textsuperscript{25}
G. Several long wicks made of rolled cotton, spun flax, silky down from milkweeds, or other string-type materials, were hung over a stick and dipped in melted tallow, so numerous candles were made at once. Dipping continued until the candles had become thick. Later, tin molds were used; melted tallow was poured into the molds and allowed to cool around the homemade wicks. As many as six, eight, or more candles could be made at once.

III. Procedure (See Fig. 3-2)
A. Melt tallow in a double boiler.
B. Cut string for wicks.
C. Dip the wicks in tallow. Allow layer to cool. Repeat process until candles are the desired thickness.

\textbf{Activity: Natural Dyeing}

I. Equipment (See Fig. 4-1)

\textsuperscript{25} Ibid, 49.
A. Twigs to scrape.
B. Several prepared dye baths on a large stove.
C. Several plants for color.
D. Raw wool.

II. Collecting Material
A. Color is determined by time of year, location of plant, amount of dye used, and amount of water. Use good conservation practices in collecting.
B. Have samples to show color and subtle differences. Also have a few plants to show.
C. The few plants might include:
   1. Rose hips - light pink
   2. Walnut hulls - deep toasty brown
   3. Sumac berries - tan
   4. Black oak bark - bright yellow
   5. Onion skins - bright gold

III. A. Procedure (See Fig. 4-2)
   1. Scrape to get dye from twigs.
   2. Soak overnight in water.
   3. Boil for 30 minutes.
   4. Strain the dyebath through a screen.

B. Dyeing
   1. Natural fibers must be used: wool, cotton, flax, silk.
   2. Wool does not have to be spun first; however, it does take dye better if it is washed first.
   3. Add wet wool to dyebath.
   4. Simmer for five minutes to one hour, depending on darkness of color

26 D’Amato, Alex and Janet, Colonial Crafts, (New York: Julian Messner, 1975) 32.
desired. Do not boil.
5. Rinse wool in clear water. Do not shock it by temperature changes.
6. Dry wool on screens or on something which allows air to circulate.

Activity: Soap making

I. Equipment (See Fig. 5-1)
   A. Two pounds of lard (not vegetable oil)
   B. Eight tablespoons lye
   C. Two cups cold water
   D. Three half-gallon milk cartons

II. Background
   A. Lard, an animal fat, was obtained by killing animals, usually pigs or cows, and cutting away their fat. It also was obtained by collecting the drippings from the animal being cooked and straining out the impurities through cheesecloth.
   B. Lye came from wood ashes which were collected from the fireplace and placed in a wooded trough having a screen bottom. The trough was placed outside and rainwater seeped through the ashes which leached out the lye. The lye solution was collected in a crock, which was placed under the trough.

III. Procedure (See Fig 5-2)
   A. Melt lard and let it cool for about ten minutes.
   B. Completely dissolve the lye in cold water, stirring about five minutes. Lye burns, so be careful not to splash it.
   C. Stir in the melted and slightly cooled lard for about ten to fifteen minutes.
   D. Pour into molds.
   E. Let the soap harden for twenty-four hours before cutting it into bars.
   F. Let the bars dry out or cure for about two weeks before using. The curing process actually allows the lard to kill the lye so it is no longer
Fig. 5-1

land

ye

20 water

3 half-gallon milk cartons

Fig. 5-2
harmful to the skin.\textsuperscript{27}

Activity: Sweet Smells
I. Equipment (See Fig 6-1)
   A. Orange
   B. Whole cloves
   C. Piece of ribbon
   D. Large straight pin
II. Background
   A. To cover the smell of cooking and the smoke from the fire, colonists sometimes made pomanders.\textsuperscript{28}
   B. A pomander was usually a mixture of fragrant herbs, spices, or fruit, usually in the shape of a ball.
   C. Some colonists thought carrying a pomander would prevent infection.
III. Procedure (See Fig. 6-2)
   A. Take a ripe orange and press whole cloves into the rind, covering the entire orange.
   B. Allow the fruit to dry in a cool, dark place, for two weeks.
   C. Cut a piece of ribbon and tie it into a loop.
   D. Push a large straight pin through the ribbon and into the orange.

Activity: Native American Cooking
I. Equipment (See Fig. 7-1)
   A. Cornmeal grits and flour
   B. Water

\textsuperscript{27} Ibid, 52.
\textsuperscript{28} D'Amato, 61.
Fig. 6-1

orange
claws
ribbon
straight pin

Fig. 6-2
II. Background

A. The northeast woodland tribes ate much meat, but were more agricultural, remaining in one place from planting until harvesting.

B. Traders and settlers added to the Native American diet by bringing coffee, white sugar, flour, and new vegetables.

C. Native American mealtime concerns were two-fold: What would be eaten today? What would be eaten this winter? Therefore, food preparation included both concerns, cooking for the present and preserving for the future.

D. Native Americans used at least three methods for preserving foods.

   1. Drying strips of meats, vegetables, and fruits over a rack in the sun was a slow process, but insured food would be available at a later date.

   2. Salting also worked for meats and fish, but could only be done in areas where salt was plentiful.

   3. Smoking was slightly different than drying because it utilized a smoky, greenwood fire and added a unique flavor to the meat. 29

E. Woodland tribes depended heavily upon garden crops such as pumpkin, squash, zucchini, and corn. Corn was an ideal crop since its cultivation did not require vast open spaces and a long, hot growing season like other grains.

F. Fewer ingredients, spices, and seasonings were available.

   1. Milk was unknown to woodland tribes, although tribes in the southwest may have utilized goat milk. 30

   2. The only sweetenings were the natural flavorings of berries and fruits, maple sap boiled into sugar or syrup, and honey.

   3. Eggs were not commonly used, although various bird eggs were available,

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29 Ibid, 60.
30 Ibid, 60.
particularly those of the large wild turkey.\textsuperscript{31}

4. Salt was available to woodland tribes. Found along rivers and streams, it
sometimes required boiling down from a water solution.\textsuperscript{32}

5. Some herbs, wild vegetables, and greens were gathered and added to meat
and soup dishes for extra flavor.

III. Procedure\textsuperscript{33} (See Fig. 7-2)

A. Boil 3 cups of water.
B. Stir in 1 cup of coarse cornmeal grits.
C. Simmer until water is absorbed, stirring occasionally.
D. Cool. When mixture is cool enough to handle, turn onto work surface floured
with 1/2 cup fine cornmeal flour.
E. Work into 2 round flat cakes.
F. Bake on floured cookie sheet at 400 degrees for 3/4 hour.

Activity: A Journey with the Abenakis\textsuperscript{34}

I. Equipment

A. 29 inch pieces of string for each child.
B. White Glue
C. Scissors
D. Four wooden beads for each child
E. A copy of the story, "A Journey with the Abenakis."

II. Background Story, "A Journey with the Abenakis"

\textsuperscript{31} Ibid, 60.
\textsuperscript{32} Ibid, 60.
\textsuperscript{34} Bruchac, John and Michael J. Caduto. \textit{Keepers of the Earth: Native American Stories and Environmental Activities}, (Golden: Fulcrum, Inc), 169.
“Our story begins in the pine woods. As we walk, the wind sighs through the pine boughs and causes them to wave. Little patches of sunlight shine in the soft pine needles beneath our feet. A twig cracks underfoot. There is a clearing in the distance and gentle curls of smoke rise into the sky. We can smell wood burning as we approach.

In the clearing are some dome-shaped shelters with arched roofs made of bark wrapped over poles. There are holes in the roofs for chimneys and smoke pours out of them. Many lodges are arranged in a big circle that is surrounded by a high long fence. We walk over to one house and feel the lines in the bark on its side. There is a pair of snowshoes leaning on the house.

We turn and walk to a great fire ring in the center of the camp, where a group of men and women are warming themselves by the blazing fire. The women wear their hair long, as do the men. Women are wearing leather skirts and leggings with mocassins attached. A blanket covers each woman’s head and flows down over a leather coat. Men wear leggings and a small, skirt-shaped piece of leather. But on each man’s head is a hood-like cap with two feathers sticking out of the tip. A bow and arrows are carried by the hunters, along with spears and knives that are laced to their belts.

These people prepare to go on a hunt by burning tobacco, a sacred plant whose smoke carried their prayers up to the ‘Owner’ or ‘Creator,’ Tabaldak, and the animal spirits. These prayers ask for permission to hunt. They also express the people’s respect and appreciation for the lives of the animals they will soon hunt, and offer thanksgiving for the food, clothing and other gifts the animals will give the people. Soon the hunters leave the fire ring, carrying their weapons, and walk through the pine grove.

Some faint deer signs are found and two of the hunters begin to follow the trail very quietly. After a long, slow, tiring search, some animals are heard chewing on the buds of small trees up ahead. The hunters creep closer and look through the branches of a low brush. The animals are deer! And so we learn one of the lessons of survival in nature: SILENCE.

The hunters look carefully at the deer in the herd, recognizing each one individually. Two of the deer are pregnant does who the hunters know are expecting fawns - these two will not be hunted. Finally the hunters decide on a certain buck as their quarry.

In an instant several arrows are strung and sent whistling through the air. The buck is shot and it falls kicking on the ground, blood flowing from wounds in its side.
One deer alone is taken because the others are needed to produce more young to keep the herd alive and because the hunters take only what they need. A second lesson of survival in nature is learned: RESPECT - respect for other life besides humans.

The hunters quickly skin the deer, cut up the meat and lash the pieces onto a pole that is carried between them on their shoulders. When they arrive in camp, people are excited to see them with their catch. “A successful hunt, “ a child cries out. “We shall have food to eat.”

The deer is not kept by the hunters and their families; it is cut into smaller pieces and given to all those who need food beginning with those who the are most hungry. Another lesson is learned of how people can survive in the natural world and with one another: SHARING - sharing the gifts of nature.

As the meat is prepared, the people burn some fat on the glowing coals of the cooking fire. The smoke that drifts upward is an offering to Tabaldak. Every part of the deer is used, because to waste any would show disrespect for Tabaldak and the animal spirits and would make them angry. Finally, the deer’s bones are returned to the land where the animals was killed. This offering of the bones completes the circle of giving and receiving - the Creator and deer giving life through the gift of food and clothing to the people, and the people completing the circle by giving the deer bones back to show respect, appreciating and thanks. A final lesson is learned for living well with the natural world: CIRCLES.

SILENCE-RESPECT-SHARING-CIRCLES- those are lessons to be remembered each day. If we live by them we will be able to live in peace with other people and in balance with the EARTH and all living things.

III. Procedure

A. Cut the strings to length and moisten one end if each string with glue and shape to a point. Threading the beads will be easier.

B. Have the children lie down on their backs, breathing in deeply and slowly.

C. Ask them to clear their minds and get ready for a journey to an Abenaki village and a hunting expedition one thousand years ago during the Woodland period.

D. Read “A Journey with the Abenakis.” When you are done, have the children sit up and repeat the four lessons: silence, respect, sharing, and circles; stringing a bead on their string as each one is repeated.

E. When all the beads are strung, tie the ends of the string together to make a necklace.

The activities explored in the thesis clearly illustrate the eastern livlihoods of Early America. Whereas summer vacation of the 20th century are essentially times to rest and play, the summer school vacations of Early America were vastly different. Children of this period were expected to pick up the extra work that was essential to their families survival. Boys and girls alike were responsible for cooking, farm chores, and various household and farm duties. Valuable lessons about the Environment, Agriculture, Responsibility, Teamwork, and Heritage are learned through participation in the activities. After taking part in these unique activities, children will leave SEA with a new found appreciation and understanding of the livlihoods that made America what it is today.

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Works Cited


Storer YMCA. Nature's Classroom.