for the children to do practical work alongside their teachers, like carrying wood, clearing the decks of snow, and sweeping the platform floor.

The forest hybrid Kindergarten strives to meet the developmental needs of young children by balancing our rhythmic time outdoors with time indoors. In doing so, we wish to imbue in children the reverence, resilience, and overall foundation of sensory and physical integration that will prepare them for a lifetime of learning. The living nature of the program is unique to our environment and takes into consideration the rhythm that will best meet the children of the Roaring Fork valley for today’s world. Seeing the children grow and develop in their kindergarten years through this rhythm is rewarding for families and teachers alike. If you have an opportunity, please come and visit us in Carbondale, in the Roaring Fork Valley of western Colorado.

Baruch Simon completed his M.Ed., with Waldorf Teacher training certification, from Antioch New England University in 2007. After beginning his Waldorf kindergarten teaching in California, he now is in his fifth year as lead teacher of a “hybrid” indoor/forest class at the Waldorf School on the Roaring Fork. Baruch’s passions include puppetry, music, snowboarding, biking, and exploring time in nature with children. He lives in Carbondale, Colorado with his wife and their son and daughter.

### The Wisdom of the Bees in the Early Childhood Classroom

Julie Anne Voss

Children seem intrinsically drawn to those creatures with wings. A ladybug or a butterfly, a fairy or an angel holds a sacred truth of something “up there,” unseen, yet known to the child. The bees enter into this realm in a more social way than other winged beauties, and the buzzing beehive emanates, through gifts of honey and wax, the good work that is being done there. Humans have long revered the work of the bees and through time an understanding of the connectedness of the bee’s life and the human’s life arose. The study of the bees by the early childhood educator can support children in creating greater connectedness to that which surrounds them, by creating an environment that acknowledges the dutiful and beautiful work of the bees and the hive.

#### The Bees’ Plight

It was a sunny suburban afternoon. The red clover grew wild in our yard, overtaking the previously planted lawn. The yard was a haven of blooms surrounded by well-trimmed green yards, fertilized and “cared for” by their owners. It soon became apparent that the clover-filled lawn was also a sanctuary for ailing bees. That summer, two little boys played for hours in their sandbox, next to a little garden full of herbs and zucchini and spinach and calendula. On the other side of the sandbox was the blooming redbud tree, and below it all the clover grew. It was then that the boys became the caretakers of the bees—and with no direction or lament of the bees’ dire situation given to them from an intruding adult. In their own little-boy way, they discovered they could build a bee hospital. They spent hours every day collecting the bees and creating havens and rooms in their backyard sandbox for the struggling creatures. It was obvious to the boys and to myself that the bees were ailing. They seemed sleepy and slow, so many just hovering around the clover. I had to hand-pollinate my zucchini that season—the bees seemed unable to find the budding yellow flowers. Instead they stayed low, buzzing
languidly close to the clover. That was the summer my boys spent their days caring for the bees.

A Study of the Bees is a Study of the Human Body
A hive is comprised of three types of bees, which have been scientifically compartmentalized according to their roles of work within the hive. It is true that the queen bee, the worker bees, and the drone bees each have their own work to do to keep the hive healthy and robust. But interconnectedness is strong between the bees. Steiner explains that just as human beings work to build their bodies through the blood, nerves, and muscles, “the bee also constructs a body; the honeycomb, the cells” (Steiner, Bees, p. 17). Steiner continues to say that humans also have a wax inside their cells, and that we are made of a kind of wax just like the honeycomb. “So we can say that it is like this: the human being has a head, and the head works on the entire large body which actually is the beehive” (ibid.). The relationship the body has with the nerves, muscles, and cells is like the relationship between the queen, workers, and drones.

As I have been studying the bees, I have brought this subject of bees into conversation at the lunch table with the children. One day I was talking about the wax that bees make for our candles. A three-and-a-half-year-old chimed in, “We have wax too! Here and here and here and here!” And she started pointing to various parts of her body. I was astounded. She, in her cosmic connectedness, related to the bees. Humans revere the bees because there is a sense that the bee’s work within the hive is as the human being’s work within the body. “The only way to understand bees is to direct the efforts of your study toward what it is that actually happens between the human head and the rest of the body” (Steiner, Bees, p. 23). Blood pulses, workers move; drones deliver, nerves fire outward; the Queen strengthens the hive, the protein cells build the body. Just as the beehive hums with the work of the queen, the workers, and the drones, the human body thrives as a group intelligence and maintains order within.

Forty to sixty thousand bees live in one community, all born of the same mother, the queen bee. The queen bee is nurtured to her revered and important stature by the worker bees; she feeds on royal jelly her entire life (approximately 2 years), while the worker bees receive the royal jelly for just the first few days of their life. The queen bee gives life to the entire colony. However, there are many caregivers within the colony—the worker bees—who sustain the life of the colony. The queen bee is the procreator, but the worker bees do the nurturing, feeding and caring for the young bees until they are ready to venture out of the hive and forage on their own. The queen bee often gets the glory; but in the workings of the hive, all organisms are imperative for the success of the hive. This synergism is reflected in the “hive” components of the human body such as nerves, blood and protein cells that must co-exist and coalesce.

As I reflect on the beehive, the hum of the early childhood classroom also comes to mind. A teacher can sense when the classroom “hive” is healthy—the happy hum of play emanates warmth and joy. All workings of the child’s environment need to be healthy for the whole to be healthy. The queen in a beehive gives life to the bees, and in the classroom the teacher becomes the life-giver with the role of establishing rhythms that support the healthy classroom hum. “The Queen is the key to the future of each hive, and forming a strong bond with the workers ensures a prevailing mood of calmness, well-being, and rightness in a hive” (Gunther Hauk, Toward Saving the Honeybee, p. 40).

The opportunity to further study how the queen forms these strong bonds with the workers is of ongoing interest to me. Bees, as do ants and other creatures, work intelligently as a group, with a wise volition that exceeds simple instinct (Steiner, Bees, page 122). A Waldorf kindergarten teacher can take these observations of the bees and ants and other insects and apply them to the social hum of play in the classroom. Work is being done through play, and a wise order is unveiling itself—and though it may look like a chaotic hive or the twists and turns of a line of marching ants, to a patient and observant eye the order of the healthy child’s play can be discovered.

Community in a social way
The order and great diligence
Are ideals to us since the beginning of time.
— Old Beekeeper Rhyme, translation from Plastisches Gestalten pp. 140-145

Have you ever seen a rectangular nest? How form influences the environment
Consider the roundness of the sun, the moon, the womb. Roundness expresses wholeness. And within
wholeness, there is warmth and protection. A feeling of completeness encompasses one when looking toward the spherical influences of life. Gunther Hauk of Spikenard Farm Honeybee Sanctuary is researching how different hive forms and structural materials used can create a healthier hive. “Roundness is an expression of the life forces and represents warmth, health, productivity, radiance and an over-all energetic resonance with life” (Hauk, Toward Saving the Honeybee, p. 10). The concept of the popular and modern-day rectangular bee box seems to date back to the Romans, while the Egyptians and the Germanic people continued to use round hives. Today, some countries, including Tunisia and the Dominican Republic, also use round hives. Efficiency for the beekeeper propelled the rectangular box forward, but the impact of this decision on the bees was lost. The angularity of the rectangular bee box is more connected to the mineral world.

Ernst Chladni, a German physicist, demonstrated with metal plates and sand the different forms that can be created through sound. Different tones create different patterns and all forms have energies within themselves that affect the environment. With this understanding of how form affects the environment, we can look to hexagonal shapes of the honeycomb. The formative force of the hexagonal cell influences the bee within it. Though there is an efficiency of space to the hexagonal shape, there is also energy that works within it that influences the growing larvae. “The larva internalizes these forms; in its body it senses that in its youth, while its body was as soft as it would ever be, it was in such a six-sided cell” (Steiner, Bees, p. 7).

Again we are reminded that the bee informs us of our human selves. As with the bees, the forms, colors, and sensory experiences of the environment formatively affect the children in our care.

The Gifts of the Hive for the Early Childhood Classroom: Honey, Candles, Beeswax Modeling

Honey contains a life-giving force; it is up to us to nurture the physical condition of the body so that the life-giving process can take place. When humans consume honey, they begin the life-forming process within the body that the bees experience in the honeycomb. Steiner explains, “In this process the honey, having been worked upon by the bee’s body, has such an effect that it can create wax in just such a form that human beings can use, because all human beings need to have these six-sided spaces within themselves. Human beings need the same things bees do” (Steiner, Bees, p. 51). When we ingest the honey of the bees, our own “bee” line—our blood—moves this honey through our body, and creates a wax within us that aids in flexibility and form. This is of particular importance for young children and older adults. “Honey contains the power to maintain the shape and form of the human body, to give it solidity” (Steiner, Bees, page 19).

Honey is a traditional food. Cultures around the world and throughout time have sanctified honey, with priests blessing the honey of the region and the hives. According to Steiner, honey becomes an important building block of the body for young children around the time of second dentition, in the teenage years, and in older people. Warm milk with a bit of honey can have curative effects that include improving red blood cell counts, helping with elasticity of the body, and strengthening nerves after the change of teeth. It is the hexagonal formative force, this six-sided cell that
works within the honey on the human being. Provide
the young child with a mug of warm milk and honey
from a healthy hive to strengthen these hexagonal
forces working within.

Steiner explains, “If you eat honey, you take in
yourself a tremendously strengthening force. If you
become too weak to develop within yourselves this six-
sided force that must flow from your head to the rest
of the body, if you don’t have any longer the power to
give your blood a certain degree of solidity so that this
six-sided force is continually present, then honey must
step in to make up for the loss” (Steiner, Bees, p. 53).

As early childhood educators we can add this
strength of honey into our daily meals with the
children. A topping of honey on bread or a dab in
the oatmeal bowl is not just for the satisfaction of
sweetness but to also know we are building their
formative forces within that will sustain the children
into adulthood.

When we light a beeswax candle, the energy
within our own cells, our own wax, is re-invigorated.
Steiner reflects, “This wax, burning there before us, we
obtained from the beehive. There was a solid substance.
When the fire melts this wax and it evaporates, then
the wax takes on the same condition that it has in our
own bodies” (Steiner, Bees, p. 22). Most people feel an
undeniable reverence when looking into the flame of
a candle. This wax that is transforming in front of
our eyes calls to the inward transformative processes
that pulse through our own body. Considering these
thoughts elevates beeswax modeling and making and
using candles to a new level of appreciation—even awe.

Beeswax carries a status of creation like no
other, another reason bees have long been revered
and held sacred. Steiner says, “If you take a piece of
beeswax into your hands, you are actually looking at
an intermediary product arising from a mixture of
blood, muscles, and bones, more precisely that which
lies between the latter three” (Steiner, Bees, p. 22).
Steiner explains that humans also go through their
own process of wax production within the body but
it does not solidify like it does for the bees. Instead
this wax remains fluid and is transformed into blood,
muscles, and bone cells. “The beeswax that you can see
physically is within you in the form of certain powers
and energies” (Steiner, Bees, p. 23). When one holds
beeswax in the hand, there is a warmth of recognition
that penetrates into the life forces of the individual.
So the child in my class would exclaim of her veiled
relationship with the forces of six-sidedness within
her own growing body, the wax she has inside “here
and here and here!”

Caroline von Heydebrand was a teacher at the
first Waldorf school in Stuttgart, Germany. She
describes the benefits of the shaping of beeswax on the
developing child: “If parents can give their children
beeswax to shape, the kneading of the noble substance
will stimulate the creative will of the child—along with
the blood that warms and fires his or her hands—to
stream into the very tips of the child’s fingers. This
not only promotes manual dexterity, but also awakens
and fosters the child’s ability to picture things. For we
know how movements and gestures of the hands and
feet affect the child’s learning to speak and now they
also help him too learn to picture and think” (Clausen
and Reidel, p. 147).

An early childhood educator can bring soul
warmth to the child with the sharing of a story about
the bees and having the children hold the beeswax
between their hands. I had the opportunity to ask
Louise deForest about using beeswax in the classroom
and how she came to relationship with the bees. She
told me how she would talk with her friend “The Bee
Man,” Ron Brelan of Cowberry Crossing Farm, about
how the bees were doing. The following is the “beeswax
story” she shared:
The wind sweeps all throughout the world, over deserts and mountains, jungles and oceans. As it travels, it gathers stories from all the different lands. The leaves of the trees catch these stories as the wind rustles through the leaves and drops them down to the flowers, who save those stories for the bees because bees love stories.

When the bees come to gather the pollen, they also gather up the stories brought by the wind, held by the leaves of the trees and dropped into the flowers’ open cups. As the bees make the walls of their babies’ rooms out of beeswax, they put the stories into the walls, as well, so their babies will know something about the world. The bees know that all human beings like stories too. So in your beeswax you will find a story that has been put there just for you. But you will only find the story if you let the good sun shine through.

Further stories after this introduction were based upon what Louise learned from “the Bee Man” that described what the bees were actually doing. If teachers lack access to a beekeeper, they may do research to learn about the bees so that their activities are described accurately through our stories’ imaginative pictures.

As part of the celebration of the Waldorf 100 anniversary, a primary focus for the campaign is to support schools in establishing their own beekeeping opportunities. Many schools have embraced this and have established their own pollinator gardens and/or bee hives. There is much to learn about the bees from scientific, historical, religious, literary, spiritual, environmental, and political perspectives. Bees and other insects are the breath of life gifted to us by the earth and cosmos. How we early childhood educators show our interest, appreciation, and reverence for the world of bees and the gifts they bring opens the possibility for the children and ourselves to be healers of the earth along with the bees, both now and in the future.

Resources:
- Clausen and Riedel. Plastisches Gestalten. Translation and notes provided by Leslie Burchell-Fox

Julie Anne Voss grew up on the edge of a rural Kansas town where she spent early years running through the prairie short grass, looking for box turtles, and playing outside “until the street lights came on.” It was these early days of fresh air, nourishing routines, and being surrounded by a vessel of warmth that drew her to the tenets of Waldorf education. A former Waldorf early childhood teacher at Prairie Moon Waldorf School in Lawrence, Kansas, Julie Anne currently resides near the shores of a very large lake in Holland, Michigan.