Where Fantasy and Facts Meet

Fairy Science Books from 1870 to 1900

NATALIE ZIARNIK

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Rarely do we see the words "science" and "fairy" together. So when I first stumbled upon the 1887 volume of *Fairy Land of Chemistry* by Lucy Rider Meyer, I knew the direction my study of children's science books would take.

Illustrations show fairies mixing brews in a flask in the woods. Small fairies with wings labeled with chemical symbols flit next to text explaining how atoms combine to make compounds. God is referred to as "The Great Chemist." Chemistry had never seemed more intriguing or filled with nuance and otherworldliness.

This unusual mixed genre of fantasy and science appeared in the mid- to late-nineteenth century in both Great Britain and the United States. Two historical events set the stage for the fairy science books: the Great Exhibition of the Works of Industry of All Nations and the publication of Lewis Carroll's *Alice's Adventures in Wonderland* in 1865. Exploring these cultural events shows how the boundaries between science and magic were often blurred. Science and technology influenced literature as much as fantasy and literary forms led to increased scientific wonder.

The Great Exhibition of the Works of Industry of All Nations (the first World's Fair) took place in London from May 1 to October 11, 1851, and was the first international exhibit of manufactured products. Its purpose was to show technology as key to a better future. The Crystal Palace, a glass building similar to a giant greenhouse, was designed especially for the exhibit. Huge statues and trees inside the building emphasized its size and grandeur.

Working exhibits fascinated the public: electric telegraphs, microscopes, air pumps, and musical instruments. Other favorites included an envelope machine, new kitchen appliances, the world's largest diamond, and a voting machine. The contents of the Exhibition, which attracted an estimated six million visitors, celebrated Great Britain as well as her colonies, and cultural artifacts from faraway lands intrigued visitors, including Lewis Carroll, who wrote to his sister that, "It looked like a sort of fairyland . . . you see nothing but pillars hung about with shawls . . . long avenues of statues, fountains, canopies."[1]

Just over a decade later, Carroll's *Alice's Adventures in Wonderland* heralded in a golden age of fantasy books celebrating imaginary creatures and realms. Magic was in the air. Potions could make a person larger or smaller. Fairies from other countries had landed in volumes of translated folk and fairy tales, now available in beautifully illustrated editions. At the same time, technology sped along at a breathless pace with the creation of railroads, factories, medicines, and airplanes. Science fields and professions were forming, often sharing and expanding on topics traditionally covered by philosophy and natural history.

Our view of the world, the cosmos, and of the evolution of life changed almost daily, leading to endless controversial discussions and attempts at understanding. In children's literature, fairies came to the rescue.

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Science Books for Children: A Brief Historical Overview

Before the arrival of the science fairy books, writers and publishers had long been creating texts to introduce children to scientific information. One of the first nonfiction picture books for children, the *Orbis Pictus* by John Amos Comenius, a minister and educational reformer, was published in Germany in 1658 and translated and published in England in 1659.[2] The book includes scenes from everyday life; each object or concept is labeled with a number in the picture, and on the opposite page, the numbers are associated with words and phrases identifying them in both English and Latin.

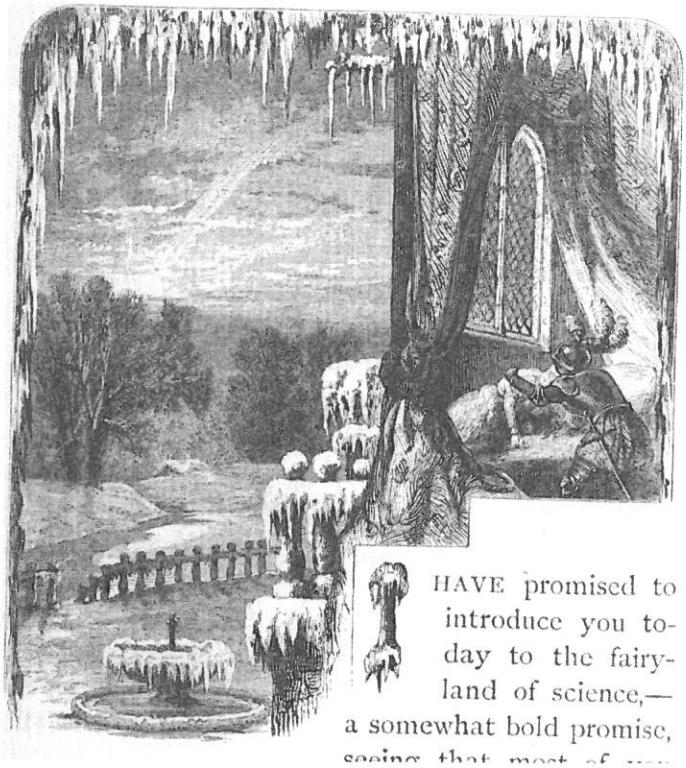
The book, enormously popular throughout Europe in the seventeenth and eighteenth centuries, was often given to children as a gift or used by schoolteachers. The author aimed to make learning quick, pleasant, and thorough by encouraging children to observe the pictures and then associate words with those. His pictures did indeed capture the imaginations of many children, as they could weave stories into the images seen.

In the 1700s and 1800s, catechisms, or small books in question-and-answer format, primarily without pictures, gave children a basic knowledge of math, agriculture, history, geography, and assorted other topics. History and religion were often intertwined, and geographical facts varied depending on when the books were published and what was currently known at that time through contemporary exploration. Perhaps because the books were published during an age of newly discovered lands, their contents show a surprising openness to possibility. In *An Astronomical and Geographical Catechism,* published in Boston in 1796, the author assumes that there is life on other planets:

> *Q. Do you suppose the planets are inhabited, like this earth?*
>
> *A. It is altogether probable they are, as they are undoubtedly composed of the same materials, and are cheered by the enlivening rays of the same sun.*[3]

Curiously, this question is treated the same as the other factual questions that describe an island, the equator, or a hummingbird. All questions and answers in these catechisms appear in a straightforward format. Children were expected to memorize the questions and answers and be able to recite them.

The book *Tom Telescope's Newtonian Philosophy,* first published in London in 1761 by author John Newbery, took children's science books in a new direction. In the outer frame story, a group of young people are gathered for the Christmas holiday and confined to the house by bad weather. Tom Telescope proposes to amuse them and asks for "philosophical apparatus," or equipment, so that he can perform science experiments while he lectures.



"Sleeping Beauty"
The Fairy-Land of Science, Arabella B. Buckley, London: Edward Stanford, 1878, pg. 4.

Humorous and entertaining anecdotes are mixed with scientific information. On the section explaining inertia, for instance, an illustration shows a man and his top hat flying forward when the horse suddenly stops. Later, in a description of electric eels, Tom Telescope relates an amusing anecdote. Two sailors visit the governor of New Amsterdam, who owned an electric eel:

> The sailors had no sooner reached the shed, than one of them plunged his hand to the bottom of the tub to seize the Eel; when he received a blow which benumbed his whole arm. [4]

The boundaries between science and magic were often blurred. Science and technology influenced literature as much as fantasy and literary forms led to increased scientific wonder.

What's more, the other sailor did not believe the experience of his mate, repeated the process, and also received a shock! An illustration of the two sailors in agony accompanies the story. The topics in Tom Telescope range from animal encounters like this one to meteorology to the science of light to practical tips on the use of instruments such as barometers, magnets, and telescopes. A number of narrative techniques are used, including dialogue from the fictional frame story, descriptions of techniques and experiments, and humorous stories. Following Newbery's approach, children's

books became more playful and entertaining, and learning was seen as an active, engaging pursuit.

As books, telescopes, microscopes, magnifying glasses, and other science equipment became more affordable, children were encouraged to try experiments and other hands-on learning activities at home so they could see the world and even the universe in a new way.

For example, in *An Introduction to Botany, in a Series of Familiar Letters* (1789), Priscilla Wakefield mentions that her book, unlike others on the same topic, is affordable and can therefore offer the study of botany to all. The book takes the more domestic form of letters written by Felicia to her sister Constance, who is away at a relative's house for several weeks. Felicia's mother has encouraged her to take up the study of botany because the fresh air and exercise are good for her health. Felicia's letters to her sister begin as personal correspondence, drawing the reader into an intimate conversation.

Yet, before long, the letters launch into scientific discourse about the parts of plants and their complex classification. In addition, Wakefield argues that "books should not be depended upon alone, recourse must be had to the natural specimens growing in fields and gardens."[5] Mrs. Snelgrove accompanies Felicia on her nature walks and acts as an authority figure who has extensive knowledge about plants. She encourages Felicia to carry a magnifying glass and dissecting instruments in her pocket during her rambles so that she can closely examine the minute details of plants.

Wakefield's book teaches children, in this case especially girls, to see and experience nature in person and to use observations to think for themselves. The book contains several illustrated pages featuring plants and their parts.

A range of other books appeared throughout the nineteenth-century that encouraged children to experiment or "play" with science. For instance, Peter Parley's *Wonders of the Telescope*, published between 1836 and 1845, describes how the ancients saw the sun as a "globe of pure fire," but that the discovery of the telescope "furnished the means of making a more accurate inquiry" and showed dark spots on the sun of various shapes and sizes which sometimes appear and other times vanish. [6]

The author gives a range of explanations for the sun spots, showing a range of scientific viewpoints. For Parley, the truth is still out there, and children need to observe and think for themselves. The last chapters of this book include information on constellations and purchasing and using a telescope.

Another example of this genre includes *The Boy's Playbook of Science* by John Henry Pepper, published in 1860. The experiments and diagrams range from an exploration of oxygen gas to the art of photography to balloon locomotion, including a list of historic balloon accidents dating to 1675. An accompanying illustration shows a goofy man in a top hat and wings labeled, "Flying machine [theoretical]."[7] Serious warnings and humor play equal roles.

My Bechtel Journey

While the longest winter ever raged in Chicago, I flew to Florida during April 2014 to study children's science books at the Baldwin Library of Historical Children's Literature at the University of Florida-Gainesville. I was greeted by lush green trees, warm breezes, friendly curators and librarians, and an incredible collection of historical children's books waiting to be read and studied.

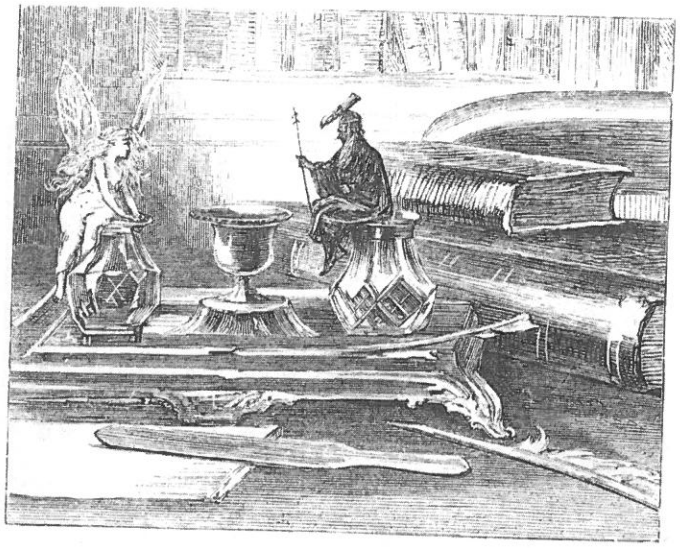
Suzan Alteri, curator of the Baldwin Library at the Department of Special and Area Studies Collections, and John Cech, Director of the Center for Children's Literature and Culture, introduced me to the pleasure of reading, studying, and exploring historical children's books. I appreciated their enormous help as well as the assistance of the other staff at the library. I send special thanks to the ALSC Bechtel Fellowship that funded my time in Florida and to the Ela Area Public Library in Lake Zurich, Illinois, for giving me time away from the Children's Department.

My aim was to study children's science books, but I never imagined there were so many from the past centuries, and with every worn, delicate cover I opened, I dove into both the history of children's publishing and the history of science. Touching these books, rather than seeing them in digital format, made everything more real.

Some volumes contained pressed four-leaf clovers that must have been a hundred (or two hundred) years old, placed carefully between pages by a child learning about nature and collecting specimens. Other books included personal notes written by parents, grandparents, and teachers to the child receiving the book as a gift. A select few contained illustrations painted in delicate watercolors by their young owners. And all were tactile, with engraved or embossed covers and old paper sometimes as soft as cloth and other times so brittle the pages must be turned with extreme care.

The topic was much vaster than I had predicted. The following report includes a special focus on the fairy science genre as well as a brief historical overview to establish a context for this focus.

Some of the books described in this article are available digitally in the University of Florida Digital Collection: http://ufdc.ufl.edu/juv.



"The Fairies"
Fairy Frisket or Peeps at Insect Life, A. L. O. E. (A Lady of England, pseudonym for Charlotte Maria Tucker), London: Thomas Nelson and Sons, 1879, Frontispiece.

Although none of the preceding science books totally prepares us for the unique characteristics of the fairy science genre, several elements do hint at what was to come. As in *Orbis Pictus*, illustrations play a critical role in the fairy science books. The catechism books' question-and-answer format prevails in children's nonfiction books for centuries, including in many of the fairy science books. Moreover, the openness to possibility that we see in the view of life on other planets in an *Astronomical and Geographical Catechism* provides us with a glimpse into the public's growing sense of wonder and longing to explore and hypothesize, a trend which authors of the fairy science genre play into. Newbery's use of humor and entertaining anecdotes to make informational texts appealing also had an influence on the style of the fairy science books.

Finally, the try-it-at-home approach books, which encouraged children to observe and think for themselves, led to an emphasis on using one's imagination, an important concept in the fairy science genre. The role of the imagination—so significant in fantasy fiction in the Victorian age—was equally important to scientists in their work of discovery and invention.

Illustration and Narrative Techniques in the Fairy Science Genre

Looking at the covers and illustrations of the fairy science books, one could easily mistake them for books of fairy tales or other imaginative literature. For instance, the dark green cover of *The Fairy-Land of Science* by Arabella Buckley, published in London in 1878, features a multitude of gold-colored fairies hanging out on a large vine. By touching the image, one can feel the contrast between the deeply engraved black vine and the smooth gold fairies. The gold images shine from quite a distance, enticing any child to want to hold the book. One fairy hangs icicles on the vine, another pours a jug of gold water over the title, one shines a light on the lake, and one blows air to create clouds.

The opening illustration for the first chapter, "Lecture I," contains both fantasy and scientific elements to accompany Buckley's comparison of the Sleeping Beauty tale to the wonders of snow and its properties. On the right side of the image, a knight wakes Sleeping Beauty from her long sleep in a medieval setting including a leaded glass window and lush curtains. On the left side, ice and snow formations highlight a snowy country scene.

Buckley opens her first chapter by explaining how beautiful water is when it freezes and then draws parallels between the awakening of Sleeping Beauty and the melting of ice "under kisses of sunlight."[8] The wonders of science and natural phenomena have many parallels to the wonders of fairy tales:

> There are *forces* around us, and among us, which I shall ask you to allow me to call *fairies*, and these are ten thousand times more wonderful, more magical, and more beautiful in their work, than those of old fairy tales.[9]

To notice these forces of nature at work, children need to pause, observe, and use their imaginations. They will see the fairy named Gravitation drag raindrops to the earth. The fairy Crystallization will build snowflakes in the clouds, and the strange fairy Electricity will fling lightning across the sky. Throughout the book the author explains how each of these mysterious processes occurs scientifically.[10]

As the book moves from topic to topic, the fairy trope is used less frequently, and illustrations, though still often showing images of marvelous wonders such as glaciers moving rocks, are completely realistic. Moreover, the book is filled with simple depictions of equipment, experiments, and diagrams of scientific principles. The chapters in *Fairy-Land of Science* originated as lectures given to children and their families. The narrative style, in which the author refers to herself as "I" and the reader as "you," maintains a conversational and informal tone of voice. Some of the illustrations in the book, especially those of experiments, play the same visual role as the live, entertaining demonstrations common at lectures.

Fairy Frisket, or, Peeps at Insect Life (1879) by A.L.O.E. (A Lady of England or Charlotte Tucker) has a cover with gold shimmering flowers and butterflies surrounding the title. Inside, the pictures are more realistic, except for the picture of Fairy Frisket with her brother, Fairy Know-a-Bit, who starred in A.L.O.E.'s earlier book, *Fairy Know-a-Bit; or, a Nutshell of Knowledge* (1870).

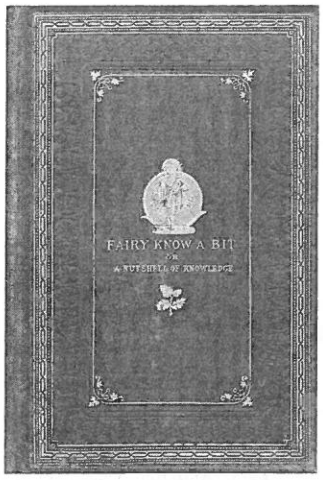
The fairy siblings have not seen each other in more than four hundred years, and Fairy Frisket begins her encounter with her brother by criticizing him for wearing a scholar's clothes and spectacles and spending all his time inside with books. Fairy Frisket prefers the outdoors where she can flit in the meadows observing insects, fungus, and the plant world.[11]

"Sidney's Introduction to the Fairy"
Fairy Know-a-Bit; or, a Nutshell of Knowledge, A. L. O. E. (A Lady of England, pseudonym for Charlotte Maria Tucker), London. T. Nelson and Sons, 1870, Frontispiece.

A.L.O.E.'s fairy science books have two didactic purposes: to introduce children to science and nature and to offer moral and behavioral guidance. The bickering between the two fairies casts a humorous light on the disputes initiated by the two human characters, Sidney and Philibert. As in a fictional novel, character plays a central role in these two books, in which the children and the fairies appear throughout the text and encounter various challenges. The two fairies are well developed, with a background and physical descriptions. For instance, the description of Fairy Frisket would charm any fan of fairy or princess fashion prevalent in today's children's books:

> The little lady's dress is formed of petals of the blush rose, fashioned by fairy fingers; with a light robe of gossamer over it, such as lies on the grass on summer mornings, all fringed with diamond dew-drops. A violet would be large enough to cover the print of the fairy's footstep.[12]

This nature-infused, magical creature is prepared to take children on adventures to learn more about insects as small as she is.



Front Cover, *Fairy Know-a-Bit; or, a Nutshell of Knowledge*, A. L. O. E. (A Lady of England, pseudonym for Charlotte Maria Tucker), London. T. Nelson and Sons, 1870.

Fairy Know-a-Bit, as implied above, differs in character from his sister. At one time, he, too, lived outside where he danced in the green turf and drank honey-dew. But the Industrial Age arrived, and with it, the railroad which now runs right through his "haunt." His realm is now that of study and knowledge, and he has lived in a large book ever since printing was invented, more than four hundred years ago. The frontispiece of *Fairy Know-a-Bit* portrays this fairy as a tiny scholar standing on a book in the library lecturing to the two typical-sized boys.[13]

In addition to characterization, the main narrative technique used in these texts is that of the vision. In *Fairy Frisket, or, Peeps at Insect Life*, Fairy Know-a-Bit touches the two boys with an ointment that causes them to dream they inhabit the bodies of bees, butterflies, and ants. In insect form, the boys accompany Fairy Frisket on adventures in the insect world so that they may learn what life is like for other creatures in detail:

> What was his [Philibert's] horror to find himself suddenly plunging down the sandy pitfall, almost rolling into the powerful jaw of the dreadful creature lying in wait at the bottom! This creature was somewhat the shape of a fat garden-spider, but with long slender mandibles to catch its prey.[14]

This scene is filled with drama, as in any other work of fiction, yet also includes information about the real trials of an ant, which one may not be aware of if one were not actually in the body of an ant experiencing it firsthand.

Visions are also used in *Fairy Know-a-Bit* but in an entirely different way. Instead of causing the boys to dream they are other creatures, the fairy waves his wand, causing a mist to appear over the bookcases in the library. A huge mirror is revealed, in which images, such as an olive tree growing in an exotic land, appear and are then discussed. Through visions in the mirror, the boys explore a variety of topics, from the parts of a flower to salt mines, paper and ink, and the sun and stars.

The cover to *Fairy Land of Chemistry: Explorations in the World of Atoms* by Lucy Rider Meyer, published in 1887, is not as magical and sparkly as the other volumes examined. Its gray cover includes four circles in gold on the left-hand side. Each circle features objects important in the fields of science and technology: chemistry equipment, a steam train engine, a plant, and an image with a globe, book, and telescope. If it were not for the title, a reader would expect this book to contain solid, factual information without a touch of fantasy. Yet, if one opens the

"Some of the Real Fairy Folks"
Real Fairy Folks or Fairy Land of Chemistry, Lucy Rider Meyer, A.M., Boston: Lothrop Publishing Company, 1887, Frontispiece.

book to the frontispiece, fantasy and intrigue suddenly appear. Next to a crescent moon backdrop, a group of fairies sits near a campfire and hovers around a glass flask being warmed to boiling point by the flames. The picture is labeled, "Some of the real fairies."[15]

Like many of the science books for children that preceded it, *Fairy Land of Chemistry* relies on a frame story. Here, a set of twins, one boy and one girl, spend some time with their uncle, who teaches them science lessons. The two children, as in the older catechisms, ask one question after another and receive answers from their uncle, the expert/mentor of the story. From the beginning and continuing throughout the text, the uncle equates atoms with fairies.

The comparison of fairies and scientific processes is therefore taken to the smallest level: the world of chemical elements, their properties, and their ability to combine and make new substances. The fairy named Chlorine, for instance, wears green dresses because the word *chlorine* is derived from a Greek word meaning green. When Chlorine holds hands with Sodium, they become salt and turn white.

"Molecule of Chlorine"
Real Fairy Folks or Fairy Land of Chemistry, Lucy Rider Meyer, A.M., Boston: Lothrop Publishing Company, 1887, pg. 28.

Chlorine also combines with the fairy Hydrogen to become hydrochloric acid. Together, their temperament is very sour!

The illustrations in this book include a mix of realistic pictures of chemistry equipment and delicate images of fairies holding hands to make compound substances. The extended analogy works for the eager, young characters in the story, who say, "They must be just the teentiest, weentiest kind of people."[16]

Overall, the fairy science genre in the mid- to late-nineteenth century encouraged children to explore science in an entertaining and intriguing way. Science was presented in an optimistic light and offered many wonders. Analogies to fairies and magic enabled the authors to use traditional storytime characters and settings familiar to children.

By the time the fairy science books were published, the general populations' interest in science had reached an all-time high. Parents brought their children to public lectures to learn more and to watch experiments. Although a few fairy science books appear in the twentieth century, they enter new territory—that of science fiction rather than science education.

Writers of the Fairy Science Genre

Interestingly, the authors of the fairy science genre books in the Baldwin Collection were all women. These writers saw themselves as popularizers of science rather than professional scientists.

As in the case of Beatrix Potter, women were discouraged from serious scientific pursuit. Potter, an accomplished naturalist from a young age, drew detailed illustrations of fungi, searched for rare species, and conducted experiments. She wrote a paper entitled, "On the Germination of Spores of *Agaricineae*," but she was not allowed to present it to the scientific establishment. Because she was a woman and an amateur, male scientists were horrified that she conducted independent experiments and developed theories.[17] Only decades later did scientists recognize the importance of her work. Since her scientific theories were not taken seriously, Potter incorporated her sophisticated knowledge into her children's books; illustrations and characters crisscross from displaying true animal-like behavior to acting like humans.

Women may not have had easy entry to practicing science at this time, but many were incredibly knowledgeable and

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had close links with scientists. Arabella Buckley, for instance, worked as a secretary to an eminent geologist, Sir Charles Lyell, and was well acquainted with his work. Like the other science popularizers in the mid- to late-nineteenth century, she used the preface of her books to explain that she was an interpreter of science and reliant on others' authority for accuracy. Her main roles were to explain science to a lay audience, primarily children, as clearly as possible and to encourage her readers to wonder about and explore the world around them.

Lucy Rider Meyer (1849–1922) majored in literary studies in college but later attended a women's medical college and the Massachusetts Institute of Technology and worked as a chemistry professor for many years. She believed women needed rigorous intellectual training that included scientific topics in order to provide health and social services to children, the elderly, and the poor.

As a result, her writing includes an incredible amount of detail about chemistry, perhaps to give children—including girls—the scientific knowledge necessary for work in the health field. She played an active role training others for urban social work through her position as field secretary of the Illinois State Sunday School Association from 1881 to 1884.

Similarly, Charlotte Maria Tucker (1821–1893), who wrote under the pseudonym A.L.O.E. (A Lady of England), had religious and missionary goals and hoped knowledge would lead to others' improved welfare. One of her main objectives was to help children feel empathy for creatures, great and small, in the natural world.

Even Potter can be considered a contributor to the fairy science genre. *The Fairy Caravan* (1929) appears later than the other texts in this genre, yet it continues their tradition of using fairies to personify the forces of nature, here as the spirit of trees whose existence is challenged by the future widening of a road for automobiles:

> Surely it is cruel to cut down a very fine tree! Each dull, dead thud of the axe hurts the little green fairy that lives in its heart.[18]

Each tree species has its own type of fairy, and all are at risk of extinction with the development of roads in the United Kingdom. Potter never hesitated to add an element of fantasy to appeal to a child's imagination or to help make her ecological argument touch the emotions as well as the mind.

Through the fairy science genre, these writers, and the publishers and illustrators of their books, found an effective method for encouraging children to learn about science. What child (especially what girl) would not be tempted to open a book covered in gold fairies? Even if her parents disapproved of her learning science, these books looked no different than fairy tale books, and the girl's studies could most likely continue unimpeded.

Fantasy, Wonder, and Science Books Then and Now

Two of the greatest scientists of the twentieth century each referred to the importance of fairy tales in their work. Marie Curie stated, "A scientist in his laboratory is not only a technician: he is also a child placed before natural phenomenon which impress him like a fairy tale."[19] And Albert Einstein said, "If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales."[20]

Today, fantasy has returned as a popular genre, and fairy stories are popping up everywhere, including the *Rainbow Fairies* series, with books mixing fiction and nonfiction elements in the "Weather Fairies" and "Pet Fairies" subseries.

In addition, some science books, such as *Redwoods* and *Coral Reefs* by Jason Chin, venture into a surreal world so that readers can capture the wonder of actually being in a tall redwood tree or under the ocean. And, just as Buckley asked children to use their imaginations when exploring science in the 1800s, Jennifer Berne's recent picture book, *On a Beam of Light: A Story of Albert Einstein*, encourages readers to join the scientific world and explore the questions Einstein never had time to answer. In the future, we will hopefully keep that sense of wonder, in whichever genre it appears. &

References

1. Stuart Dodgson Collingwood, *The Life and Letters of Lewis Carroll* (Project Gutenberg E-Book http://www.gutenberg.org/files/11483/11483-h/11483-h.htm#CHAPTER_11_T).
2. John Amos Comenius, *Orbis Pictus, A facsimile of the first English edition of 1659 introduced by John E. Sadler* (London: Oxford UP, 1968).
3. Caleb Bingham, *An Astronomical and Geographical Catechism for the Use of Children*, 2nd edition. Published According to an Act of Congress (Boston: S. Hall, 1796): 5.
4. Tom Telescope, *Tom Telescope's Newtonian Philosophy. The Newtonian Philosophy in General explained and illustrated by familiar objects in a series of entertaining lectures by Tom Telescope* (London: Thomas Tegg and Son, 1838): 157. Originally published by John Newbery in 1761.
5. Priscilla Wakefield, *An Introduction to Botany, in a Series of Familiar Letters, with Illustrative Engravings*, 2nd edition (London: E. Newbery, 1789): 2.
6. Peter Parley, *The Wonders of the Telescope, or First Elements of Astronomy, According to the Latest Discoveries* (London:

Darton and Clark, between 1836 and 1845): 22–23.
7. John Henry Pepper, *The Boy's Playbook of Science: including the various manipulations and arrangements of chemical and philosophical apparatus* (London: Routledge Warne, 1860): 119.
8. Arabella B. Buckley, *The Fairy-Land of Science* (London: Edward Stanford, 1878): 4.
9. Ibid, 6.
10. Ibid, 8.
11. A.L.O.E., *Fairy Frisket, or, Peeps at Insect Life* (London: T. Nelson and Sons, 1870): 15.
12. Ibid, 10.
13. A.L.O.E., *Fairy Know-a-Bit; or, a Nutshell of Knowledge* (London: T. Nelson and Sons, 1870).
14. A.L.O.E., *Fairy Frisket, or, Peeps at Insect Life*, 105.
15. Lucy Rider Meyer, *Fairy Land of Chemistry: Explorations in the World of Atoms* (Boston: Lothrop, 1887).
16. Ibid., 29.
17. Judy Taylor et al., *Beatrix Potter: 1866–1943. The Artist and Her World* (London: Warne, 1987): 90–91.
18. Beatrix Potter, *Fairy Caravan* (London: Frederick Warne & Co., 1929): 217.
19. Eve Curie Labouisse, *Madame Curie: A Biography* (New York: William Heinemann, 1938): 371. Translated by Vincent Sheean.
20. "Einstein's Folklore," *Folklife Today* (blog), December 18, 2013, http://blogs.loc.gov/folklife/2013/12/einsteins-folklore/.

Wilton (Conn.) Library Wins Statewide Award of Excellence

When it comes to innovation, Wilton Library is full STEAM ahead—its Innovation Station maker space received the Connecticut Library Association's (CLA) 2015 Award of Excellence in Public Library Service. This annual award honors a public library that has provided an outstanding program or service to its community.

"The awards committee was very impressed not only by your . . . Maker Space but by the promotion in the community," said Marjorie Ruschau, CLA regional representative. "We loved the creative, collaborative nature of this event. It provides an excellent model of an engaging community program." Judging criteria included creativity and innovation, service to the community, and leadership in creating model programs that will affect the future of the library and its community.

The Innovation Station opened in June 2014 and promotes STEAM, offering classes and one-on-one instruction geared towards science, technology, engineering, arts, and math (STEAM) education.

Wilton Library Executive Director Elaine Tai-Lauria said, "STEAM learning is a way to teach how all things relate to each other and prepares our community for success in school and in life. Our Innovation Station makes STEAM learning come alive, giving the community a hands-on opportunity to explore new technologies, equipment, and avenues of inspiration."

For more information, visit www.wiltonlibrary.org.

Pictured left to right, Dawn LaValle, director of library development at the Connecticut State Library, presents the Connecticut Library Association's 2015 Excellence in Public Library Service award to Wilton Library's Mary Anne Mendola Franco, assistant director, Technology and Training and Susan Lauricella, head of Teen Services and maker space coordinator.