

# Science is music to Bedford author

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**M**ost mornings, Paul Carr walks along the brook that runs near his Bedford home.

But as he strolls, he might not be thinking of the natural beauty in quite the same way as other walkers.

Carr, a retired Air Force researcher and 1957 Massachusetts Institute of Technology physics graduate, said the beauty in nature and art is largely based on science.

Now, he's written a book about it.

"Beauty in Science and Spirit" is a collection of Carr's musings on how the natural world and art relate.

The book's chapters range from "Theology and Fractals" to the "music" of the big bang. Fractals are designs with details that decrease mathematically and in proportion.

He said he's always been interested in the science behind beauty and its relationship to religion.

Carr's love of beauty and sci-



*The Bedford Bulletin/Kevin Shalvey*

**In the home office where he wrote much of "Beauty in Science and Spirit," Paul Carr describes the mathematics behind a fractal design. This fractal, known as the Sierpinski Fractal Triangle, can also be found in 13th-century art, he said. "Could it just be a serendipitous coincidence?" Carr asks in his book.**

ence all started when he was a boy in northern Vermont, where he would sit and watch the stars and the aurora borealis.

"And, as we learn more about it and want to know more, we find that there's a mathematical base to all of it and its beauty," said Carr.

Even in his retirement, Carr is a ball of energy. He barely pauses and, it seems, never stops smiling. In his well-furnished liv-

ing room, talking about his book, he's a sort of human hummingbird wearing an MIT maroon blazer.

The topics in his book reach back to the beginning of the planets and the solar system, which by design are mathematical, said Carr.

"And it was beautiful, isn't that beautiful?" he asks, pointing to a plate of the "Oldest radiation in the universe" from

his book.

Carr was also a recent guest on Paul Bordeleau's BCTV music show, on which the two men talked about the relationship between music, art and science.

The show mainly concerns musicians, but Carr and Bordeleau met at the Bedford Public Library's Sunday Concert Series and each said they couldn't resist taping the segment.

"Usually, my shows run a half-hour, but there was so much to say about his book and his approach was so interesting that we took a whole hour," said Bordeleau.

When Carr walks in the morning, he sometimes carries his digital camera to take nature photographs, another of his hobbies.

"We were lucky enough to get this house near the brook, where I can take daily nature walks, which is where I took this photo," Carr said, pointing to butterfly on the cover of his book.

For more information about Carr or "Beauty in Science and Spirit," visit his Web site, [www.mirrorofnature.org](http://www.mirrorofnature.org).