

## Pacman Nebula discovered by Edward Barnard

Who has not played the Pac-Man game at one time or another? Space plays it too!

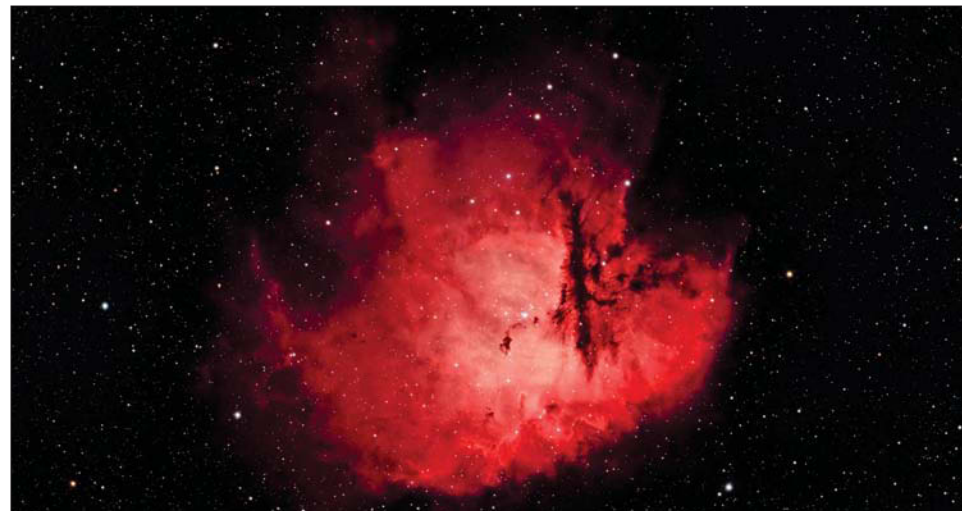
The Pacman Nebula is an emission nebula located 9,200 light years away in the constellation, Cassiopeia. It was discovered by Edward Emerson Barnard in August 1883, describing it as “A large faint nebula, very diffuse”. It spans 48 light years across.



**Carlos Rotellar**

Emission nebulae are star forming clouds that contain mostly hydrogen. At the heart of NGC 281 lies a young open star cluster called IC 1590. These massive, newly formed stars emit ultraviolet radiation which, in turn, ionizes the surrounding cloud creating the red glow we see in the image. The Pacman Nebula has a round shape with a distinct “bite” or wedge taken out of it caused by the dense cloud of dust blocking the light behind, and giving the impression of an open mouth resembling the video game Pac-Man. NGC 281 is also rich in

Bok Globules — small, very dense clouds of gas and dust that appear as dark patches against the brighter nebular background. These globules are considered stellar “eggs,” where gravity is beginning to collapse the material into protostars, which is the early stage of star formation. Bok globules are 1 to 50 light years across, they are one of the coldest places in the Universe reaching -430degrees Fahrenheit and they contain mostly hydrogen, dust and helium. They were first described by the Dutch-American astronomer Bart Bok in



CARLOS ROTELLAR

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1947. *who has had an interest in universe from his driveway*  
*– Dr. Carlos Rotellar is a astrophotography and has for several years. Website:*  
*Bowling Green nephrologist been taking images of the Skyastrophotos.com.*

## Historic libraries bring modern comfort to book lovers, history buffs

**By LEAH WILLINGHAM and KIMBERLEE KRUESI**  
*Associated Press*

BOSTON — When David Arsenault takes down a worn, leather-bound 19th-century book from the winding shelves of the Boston Athenaeum, he feels a sense of awe — like he’s handling an artifact in a museum.

Many of the half a million books that line the library’s seemingly endless maze of reading room shelves and stacks were printed before his great-great-grandparents were born. Among fraying copies of Charles Dickens novels, Civil War-era biographies and town genealogies, everything has a history and a heartbeat.

“It almost feels like you shouldn’t be able to take the books out of the building, it feels so special,” said Arsenault, who visits the institution adjacent to Boston Common a few times a week. “You do feel like, and in a lot of ways, you are, in a museum — but it’s a museum you get to not feel like you’re a visitor in all the time, but really a part of.”

The more than 200-year-old institution is one of only about 20 member-supported private libraries in the U.S. dating back to the 18th- and 19th-centuries. Called athenaeums, a Greek word meaning “temple of Athena,” the concept predates the traditional public library most Americans recognize today. The institutions were built by merchants, doctors, writers, lawyers and ministers who wanted to not only create institutions for reading — then an expensive and difficult-to-access hobby — but also space to explore culture and debate.

Many of these athenaeums still play a vibrant role in their communities.

Patrons gather to play games, join discussions on James Joyce, or even research family history. Others visit to explore some of the nation’s most prized artifacts, such as the largest collection from George Washington’s personal library at Mount Vernon at the Boston Athenaeum.

In addition to conservation work, institutions acquire and uplift the work of more modern creatives who may have been overlooked. The Boston Athenaeum recently co-debuted an exhibit by painter Allan Rohan Crite, who died in 2007



PHOTOS BY CHARLES KRUPA / AP

Portraits of Mass. Rep. Charles Lewis Mitchell (left) and Dr. John V. de Grasse are shown from a photograph album from the personal collection of anti-slavery activist Harriet Hayden, which was printed in the 1860’s, at the Boston Athenaeum on Oct. 9 in Boston.

and used his canvas to depict the joy of Black life in the city.

One thing binds all athenaeums together: books and people who love them.

“The whole institution is built around housing the books,” said Matt Burriesci, executive director of Providence Athenaeum in Rhode Island. “The people who come to this institution really appreciate just holding a book in their hands and reading it the old-fashioned way.”

### BOOK LOVER’S DREAM

Built to mimic an imposing Greek temple, staffers at the Providence Athenaeum often talk about the joy of watching people enter for the first time.

Visitors must climb a series of cold, granite steps. Only then are they met with a thick wooden door that ushers them into a warm world filled with cozy reading nooks, hidden desks to leave secret messages to fellow patrons, and almost every square inch bursting with books.

“It’s the actual time capsule of people’s reading habits over 200 years,” Burriesci said, while pointing to a first-edition of Little Women, where the pages and spine proudly showcase



Two pedestrians walk past the Boston Athenaeum, one of the oldest independent libraries in the United States on Oct. 9 in Boston.

years of being well read.

Many athenaeums are designed to pay tribute to Greek influence and their namesake, the goddess of wisdom. In Boston, a city once dubbed “the Athens of America,” visitors to the athenaeum are greeted by a nearly 7-foot-tall (2.1-meter-tall) bronze statue of Athena Giustiniani.

The building is as much an art museum as it is a library.

“So many libraries were built

to be functional — this library was built to inspire,” said John Buchtel, the Boston Athenaeum’s curator of rare books and head of special collections.

The 12-level building includes five gallery floors where ornate busts of writers and historical figures decorate reading rooms with wooden tables overlooked by book-lined pathways

See **HISTORIC**, 3C

## The social experiment

It was a social experiment. Nothing more.

We were in an elevator. Me and Bill. Bill is an academic researcher, dealing in human behavior. Also rats. He knows a lot about rats. Whereas I am a redhead.

It was a large elevator. There were maybe 14 passengers. The supermarket downtown is swanky. The big elevator carries you from the parking garage to the main level.

“Pay attention,” said Bill, as we boarded the sardine can.



Sean Dietrich

“What do you see?” he whispered into the redhead’s ear.

For starters, almost everyone in the elevator was young. And by “young” I mean the oldest among them was probably early 20s.

“That’s because this supermarket is located near the college,” said Bill.

The elevator stopped. More people got on. All young people. The lift stopped at another floor. Another young group shuffled aboard.

There might have been 20 of us now. Everyone was a baby compared to Bill and me, who are both old enough to remember when Lawrence Welk officially went off the air. “Are you paying attention?” Bill asked.

I nodded. Although, I wish I hadn’t been. Because I was immediately struck with an eerie feeling in this elevator. Namely, because everyone was staring at a device. And I mean everyone.

Nobody made eye contact. Nobody seemed to WANT to make eye contact. Nobody offered the quick, polite social smiles our mothers taught us to give others. Nobody acknowledged boarding elevator passengers with warm looks and brief nods.

Nobody seemed aware of anything. They just stood there. Numb. Head craned downward. Staring at the iridescent blue, opiate glow of their touchscreens.

The elevator doors opened. We were on the main level now. The elevator emptied.

“Follow and observe,” said Bill.

Together, we sort of followed the young people

See **SOCIAL**, 3C