



Is Bell Labs a Bellwether?

As Bell Laboratories tries to find a new life, preservation efforts hang in the balance

Many of the technologies that professionals in the building and real estate industries use today—especially for remote conferences—can be traced to the development of the Telstar communications satellite in the early 1960s.

So it's quite fitting that last April three dozen architects, landscape designers, and preservationists did indeed get together—in person, not remotely—to brainstorm a list of recommendations on how to save a special and very significant corporate complex that may face extinction in New Jersey: the old Bell Laboratories in Holmdel. Which, by the way, is where Telstar was born.

Thousands of scientists and researchers have called Bell Labs their professional home; for 49 years they worked wonders for the world.

What that means, of course, is that in certain ways some of the remarkable scientific advances that distinguished the Bell Labs complex for nearly half a century may actually play a part in saving it, since thousands of remote conferences and web-based inquiries on its fate began immediately after the brainstorm ended. Now, only time will tell. Holmdel, a town of 15,000 in Monmouth County, is also home to the popular PNC Arts Center and the notable New Jersey Vietnam Veterans Memorial. But right now it's the Bell Labs landscaped complex, currently owned by Alcatel-Lucent, that's getting the most attention because of its history and uncertain future. It is the only building in New Jersey designed by world-renowned architect Eero Saarinen, who also designed the Gateway Arch in St. Louis and the TWA building at John F. Kennedy International Airport. As most people who set foot in

the complex agree, Saarinen's Bell Labs design is a New Jersey treasure.

The vast, six-story, two million-square-foot research and development center, where thousands of engineers, inventors, and scientists worked on groundbreaking technologies, is a groundbreaking design in itself, built for the maximum creative and productive advantage of its occupants. Many scientists and technicians need a high degree of light control for their often delicate and sensitive work—yet natural light is also important for other aspects of human resources and employee well-being. Saarinen met that challenge with all-glass, floor-to-ceiling corridors along the perimeter of the building, with windowless offices and labs set inside. There is also a splendid two-story atrium in the center. All told, it provided the best of both worlds, and for 49 years it worked wonders for the world of innovation.

"It was a bustling city of productivity during my time there, with a population approaching 10,000," recalls Anthony Johnson, a scientist and educator who worked at the Holmdel center for more than a decade. "It was my research home for 14 years and, regrettably, I don't think there will ever be another place like it."

In addition to Telstar, the developments that came out of Bell Labs led to the transistor, microwave radio relays, the charge-coupled device (CCD), which is important for digital photography and astronomy, and many other advancements. The building was designed to accommodate research needs for a wide variety of specialties, including fiber optics, condensed matter physics, electron microscopy, semiconductor material growth, and more. Johnson, who worked in its Photonic Circuits Research Department and is now director of the Center for Advanced Studies in Photonics Research at the University of Maryland in Baltimore County (and a professor there), fondly recalls performing "cutting-edge research" with many of his equally accomplished colleagues.

The Holmdel facility is also conducive to the research and design milieu, with more than 470 pristine acres surrounding the building, a major section of which was designed by the landscape architecture firm of Sasaki, Walker and Associates, renowned for its work on many stunning college campuses. In fact, for many former employees, time spent at the Bell Labs campus had the feeling of hope and possibility akin to being immersed in an exceptional university environment.

"We take our corporate office parks so much for granted nowadays," says Michael Calafati, chair of the American Institute of Architects-New Jersey (AIA-NJ) Historic Resources Committee. Calafati, referring to the plethora of commonplace, serviceable structures that dot the Garden State commercial landscape, says that the Bell Labs complex is clearly a standout. "This particular corporate park was completely and entirely



innovative.”

“This is a leading example of a post-World War II building in New Jersey. It is a manifestation of the state’s prowess as an important industrial and technology player in the generations following the war,” Calafati says.

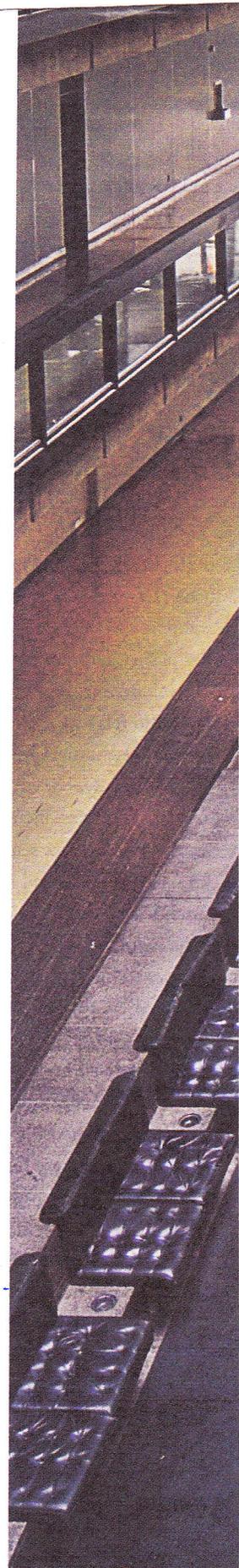
Thousands of scientists, researchers, and support personnel called the sleek, rectangular Bell Labs complex their professional home since the building opened in 1959. It was expanded in 1966 and 1985. At some junctures of its technological tenure there were as many as 6,000 people there at once. Six Nobel Prize winners spent time there. Evidence that supported astronomy’s Big Bang Theory was confirmed at the Horn Antenna, which is on the Crawford Hill section of the complex. But economics, corporate transformations, municipal matters and other elements prompted Alcatel-Lucent to shutter the building in July 2007, and it is currently for sale.

“In a declining economy there are, unfortunately, many reasons a suitable tenant might not be interested in the building,” says Kevin Roach, an architect with the firm that evolved from the one Saarinen founded. “It’s a very special building, in a unique class of its own.” While the newer firm, Kevin Roach John Dinkeloo & Associates, is not involved in the current Bell Labs state of affairs, its architects, like countless others in New Jersey and other states, are watching the situation closely, for obvious reasons.

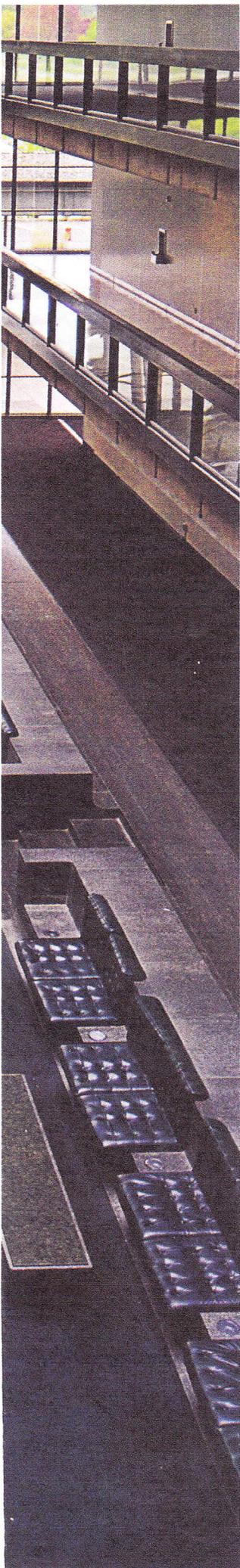
Indeed, when it was suggested by one developer not too long ago that the complex be completely demolished and replaced with offices and (elsewhere on the property) condominiums, there was an immediate outcry from worldwide, as well as an online petition to stop that from happening. The research community even went so far as to call the demolition a desecration. The scientists’ cyber shout was heard. Plans for demolition were put on hold, at least temporarily.

But there’s another danger, says Clinton Andrews, facilitator of the recent three-day meeting designed to come up with workable suggestions for the site’s future—that the building could simply deteriorate while new uses and a new buyer or user are sought.

Although eligible for inclusion in the New Jersey and National Registers of Historic Places, no one really knows what the future



The main structure, from left: Office corridor plants, once lush gardens, survive from slight roof leaks; the main atrium still looks grand; the back wall overlooks gardens, pond, and baseball fields.



holds—for the building or the land surrounding it. After all, a machine that can accurately predict the future is one thing the men and women at Bell Labs were not able to develop.

So for now we must depend on the architects, landscape designers, and preservationists to do with words and ideas what those venerable scientists did with microscopes and voltmeters. In addition to talent and intellect, a little luck and a lot of cooperation are also needed.

The three-day meeting, known in the design industry as a charrette,

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began on Friday, April 11 at the Holmdel Senior/Community Center (hosted by Citizens for Informed Land Use) with a welcoming address to which the public was invited, and concluded on Sunday, April 13 with a public presentation of findings and proposals. No money changed hands during the process: the recommendations were free. No copyrights are attached to the proposals: the ideas are on the house. The Holmdel government, Alcatel-Lucent, potential developers, and several interested groups and associations are now reviewing all the data.

“It was a good charrette,” reports facilitator Andrews, a professor of urban



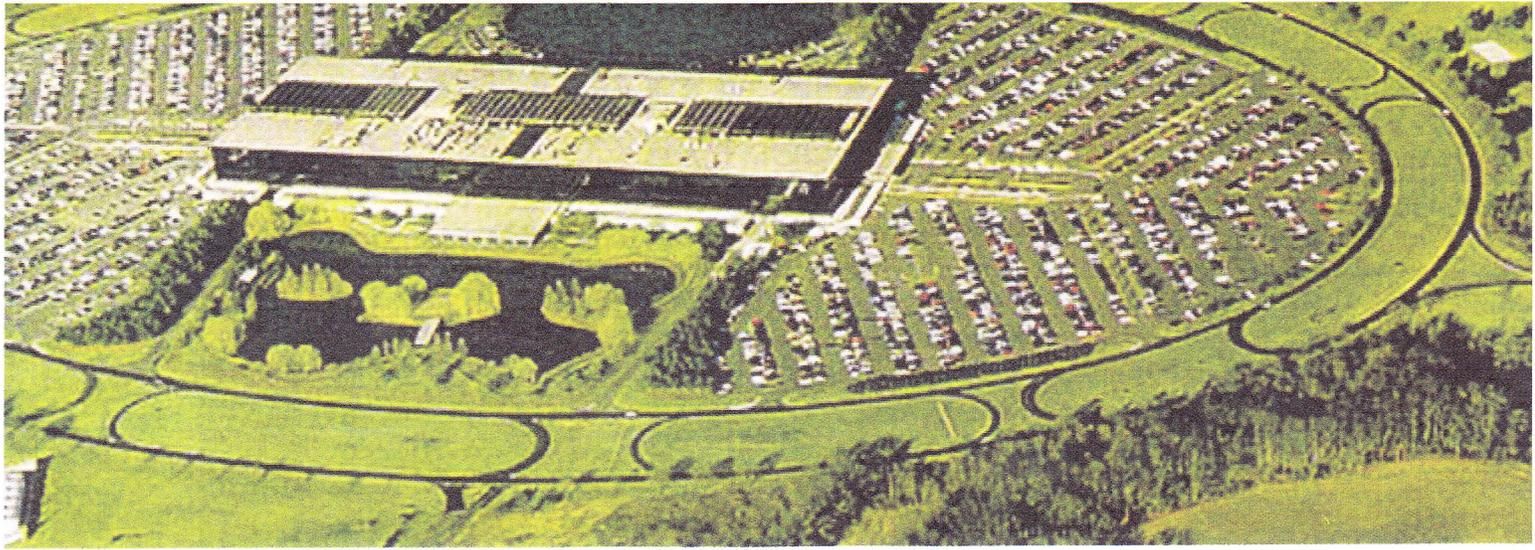
planning at Rutgers University. “Volunteers from a variety of professional disciplines donated many hours of time. They came from all over the country and were high-spirited and creative, cooperative and thoughtful.”

Beyond the specific recommendations that have come out of it, one of the most useful functions of the charrette, says Andrews, is that it effectively disproved many misconceptions about the facility and demonstrated that it is, in fact, a highly adaptable space that can be cost effective for the next owner, with some internal modifications.

When the charrette concluded, organizers compiled sketches and presentation boards based on the recommendations. The recommendations were considered by attendees to be visionary, illustrating a range of solutions that focused on (among other things) sustainable restoration that would bring the building into the new century without losing its time-honored character. Among the many items discussed were the addition of lighting wells to bring more natural light into the otherwise windowless laboratories, and the addition of solar power capabilities. Possible uses for the existing building include healthcare, education, entertainment, and even residences. There was also a consensus to maintain the complex’s 472 acres as publicly accessible land.

“We know that the recommendations that came out of the charrette will protect the character of both the building and the landscape,

Clockwise from top left: Bell Laboratories’ water tower was modeled after the design of an early transistor, which was invented by three Labs researchers in 1947; members of the charrette—which included architects, landscape designers, preservationists, and some of the facility’s former scientists—gathered in April for a Bell Labs campus tour; an aerial view of Bell Labs; a panorama of the 472-acre campus, taken from the roadway surrounding the main structure.



Indeed, when it was suggested by one developer that Bell Labs be demolished and replaced with offices and condominiums, there was a collective shout of disapproval worldwide. That cyber shout was heard.

which work so well together,” adds Ron Emrich, executive director of Preservation New Jersey. “The recommendations are designed to protect the character-defining features of the building, recognizing that it will probably have to be adapted for new uses. The recommendations are also designed to protect the features of the designed landscape.”

AIA-NJ and Preservation New Jersey were key organizers of the charrette (a forum that has been used since the 19th century by architecture schools), with other interested and involved parties that included the National Trust for Historic Preservation, the Recent Past Preservation Network, and the Cultural Landscape Foundation.

It is an intricate and thorny situation at best. The township of Holmdel has tax-revenue interests; potential new owners will want significant income possibilities, the state has ecological concerns (part of the land is a groundwater recharge area that feeds a heavily-used reservoir), preservationists and environmentalists have plenty of their own concerns. And that’s just the short list of truths and consequences. The complex certainly doesn’t need any more distinctions, for its list of technological advancements is distinctive enough. AIA-NJ recently gave it another when it listed it as one of “New Jersey’s 150 Best Buildings and Places.” Unfortunately, Preservation New Jersey had the gloomy task of adding yet another distinction: the complex is now one of the “Ten Most Endangered Historic Sites” in the state.

If some of the charrette’s recommendations are seriously considered—or better yet, adopted—by those who eventually control the fate of the complex, we can be certain that all the countless friends, fans, and former workers at the celebrated site will spread the good word far and wide. And many will do that using cell phone technology—which happens to have been developed at Bell Labs. ■

