

#COOK PINE

Why They Tilt  
Towards the Equator

It is possible that Cook pines possess a genetic growth trait that evolved in their native range near the tropics



Cook pine trees (Araucaria columnaris) are tall, narrow conifers native to New Caledonia and widely planted across tropical and subtropical regions of the world. One of the most intriguing features attributed to these trees is their apparent tendency to lean towards the equator, regardless of which hemisphere they are planted in. This unusual growth pattern has attracted attention from botanists, geographers, and casual observers alike, raising questions about how plants perceive and respond to their environment.

Observing the Phenomenon

Reports of equator-leaning Cook pines come from diverse locations including Australia, Hawaii, Florida, and parts of South America. Observers have noted that in the Northern Hemisphere, the trees often tilt slightly southward, while in the Southern Hemisphere, they tend to lean northward, both directions pointing towards the equator. While not every Cook pine shows this behaviour, the pattern is frequent enough to suggest a real biological or environmental cause rather than coincidence.

Scientific Investigation

The phenomenon gained scientific attention in the 1990s and early 2000s when researchers began measuring trunk angles across multiple locations. These studies found that a majority of mature Cook pines displayed a measurable equator-ward lean, often increasing with age. Importantly, the tilt was usually subtle rather than dramatic, making it more noticeable when trees were planted in rows or compared side by side.

Possible Explanations

1. Phototropism and Solar Geometry

One of the leading explanations involves phototropism, the tendency of plants to grow towards light. Near the equator, the sun's path is more directly overhead, while farther north or south, it arcs through the sky at an angle. Cook pines may grow in a way that optimizes exposure to sunlight over the course of the year, subtly adjusting their vertical growth towards the average direction of maximum solar radiation, which happens to be equator-ward.



Listening cafés have become the perfect way to socialize in a bored world. "This kind of shared listening offers something increasingly rare: low-demand social connection," says clinical psychologist Gurpreet Kaur, who has a degree in music. "You are with others, but without the pressure to converse, entertain or manage social cues. That drop in demand allows the nervous system to soften rather than brace."

● Verna Mohon

Gen Z music fans are now shunning night clubs for quieter pursuits. In a world drowning in noise, 20-somethings are swapping dance venues for listening bars. In these mini museums to music, patrons serenely sip coffee or cocktails while the owner curates the soundtrack from their own collection of vinyl.

The first listening bars, or ongaku kissa, were created 100 years ago in Japan. Customers drank coffee while European classical music played through high-fidelity speakers. During the 1970s, listening cafés, which now included jazz and rock 'n' roll, seemed to have reached their peak. But in recent years, the phenomenon has gone global.

A welcome respite from the chaos of the world today, these chill spaces can be found in teahouses and vegan cafés or even squeezed into off-the-grid campers. From Tokyo to Berlin to New York, luxury brands have also embraced them. In 2025, Italian fashion design brand Valentino opened a pop-up listening bar during the summer at its Madison Avenue store and Virgin Hotels London-Shoreditch launched its new vinyl-lined listening room, Hidden Grooves.

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Another hypothesis suggests that Cook pines may develop asymmetrical wood density or cell expansion in response to environmental stressors such as prevailing winds, temperature gradients, or seasonal sun angles. Over decades, these small imbalances could accumulate, resulting in a noticeable lean.

Despite popular claims, Cook pines should not be used as natural compasses. Not all individuals tilt, and local factors such as wind, slope, soil conditions, or damage can override the equator-ward tendency. The phenomenon is best understood as a statistical pattern rather than a universal rule.



Virgin Hotels London-Shoreditch launched its new vinyl-lined listening room, Hidden Grooves.



Devon Turnbull, HiFi Pursuit Listening Room Dream No. 3, Cooper Hewitt, Smithsonian Design Museum, 2025.



Listening bars, like Hidden Grooves, have become the perfect way to socialize in a post-pandemic world.

Gen Z Is Trading Night Clubs for Japanese-Style Listening Bars

#ENTERTAINVILLE



The traveling minibar Midori is inside a solar-powered camper, pulled by a 1977 Mini Clubman Estate car.



Silence Please, a studio that designs bespoke high-fidelity speakers, launched a listening room meets teahouse in Manhattan in 2024.

music, whether rock or Argentinian tango, had its own kissa. "They were simultaneously places of learning, places of healing and places of worship," says Dwyer.

Meikyoku Kissa Lion was rebuilt and reopened in 1950, mirroring the original. The atmosphere of this café remains as reverential as a church, and the classical music piped through the speakers is crisp. The only change made by its 83-year-old owner, Keiko Ishihara, since its reopening, has been to its menu: the café stopped serving food, due to noise-level concerns, and offers only simple beverages, like coffee, tea and lemonade. Each vinyl is played on the café's turntable after being introduced to the patrons, who sit at tables facing ten-foot-tall speakers on the wall, like parishioners sitting in church pews.

Nick Dwyer's very first experience with listening bars was at Meikyoku Kissa Lion. "It just shocked me, because I had a realization, which was, when was the last time I just listened to a record, just listened and didn't do anything else?" he says.

"In Japanese culture, all inanimate objects have a soul. Records have a soul as well," Dwyer notes. "When someone in Japan thinks of the record, they think of the man that pressed it and the history etched into it."

Over time, shifts in technology, such as the invention of the Walkman and car stereos, saw some kissa fall out of fashion and close their doors, while others, such as jazz kissa, remained strong. Jazz purists believe that vinyl helps

clear highs. Visitors can also take part in figure-drawing classes, tea tastings and listening sessions with record clubs.

D.J. Jansen Scott, who owns the vinyl store Duty Free Records (located inside Silence Please), says that the rise in bespoke speaker companies, such as Silence Please and OJAS and Bridge Street Sound in Brooklyn, blended with social media and people's desire for third spaces, made for fertile ground for listening bars in the U.S. "People want to hang out and hear curated music in a space that's maybe not as stimulating as a concert, yet more intentional than a bar where people are shouting over each other," says Scott. "As younger folks are drinking less, new communities are forming in these spaces."

Scott adds: "Someone jokingly said to me, 'it's illegal to loiter.' There aren't many places where you can just hang out and hear good music, without having to buy something. Listening rooms are a great place to loiter."

Listening cafés in the United States have also attracted a new post-pandemic audience, the work-from-home crowd. Silence Please "offers a unique experience that is hard to find elsewhere," says TikTokTok @Nikkidill, who seeks out unusual co-working spaces. She calls it a space where music, art and focus collide.

Gen Z are finding that listening rooms are good for the mind, body and soul. Denver-based interior stylist and TikTokTok Izzy Lynch first visited ESP HiFi, a listening bar in Denver's Santa Fe Arts District that

burns incense, serves natural wine and plays vinyl on restored vintage Garrard 401 turntables, in 2022. "The entire experience blew me away," says Lynch. "The sound was crisp, you could tell there was a lot of thought behind the placement of speakers to maximize acoustics. And I was mesmerized by the effortless floating between records."

The trend is carrying over to the home, with publications like the Wall Street Journal and Elle Décor weighing in on what's driving people to create personal listening rooms and how to design them. After designing an in-home listening room for a client, Lynch shared tips with her TikTok followers on styling similar spaces. While your speakers and turntable should be on display, for example, other media should be hidden. "If the room is doubling as a TV room, stow the TV away behind a piece of furniture, or orientate it so it isn't the focal point," she says. Lynch also encourages people to think about the lighting: "Use soft white bulbs hovering around 2700 Kelvin to help create a space that promotes lingering and listening."

Ongaku Kissa 2.0

As listening bars take hold in the U.S., ongaku kissa in Japan are assuming new forms. The traveling minibar Midori, for example, is inside a solar-powered camper, pulled by a 1977 Mini Clubman Estate car. Followers track its location in Tokyo on Instagram and catch up with it to listen to music selected by a D.J. or play their own vinyl.

"When the listening bar suddenly appears on the street, most people are amazed," says founder Shiori Tanaka. "The sense of being transported out of everyday life surprises many visitors, so much so that many become repeat customers."

Midori has also attracted traditional kissa fans, thanks to sound

engineering by Komatsu Acoustic Laboratory, known for custom audio systems that use tube amplifiers and high-fidelity speakers.

"Tokyo's scene is incredibly diverse," Tanaka says. Listening bars can be found everywhere from dingy cellars to sparkling five-star hotels. "What they all share is a deep respect for sound," she adds.

Kenichi Saigo is the bar manager for Inc & Sons, a next-generation listening bar in Osaka. Tucked away in a basement, the candlelit watering hole has bottles of whiskey lining one wall, and a D.J. booth with shelves filled with vinyl records hugging another corner. Although talking is forbidden at Meikyoku Kissa Lion and other traditional Kissa, the rules are relaxing, and guests at Inc & Sons can chat quietly while a team member curates the tracks.

Here, the aim is to balance music, mixology and mood. "Sometimes, you'll get excited with loud jazz, sometimes, a mellow piano solo, or sometimes, a bright and cheerful atmosphere with Latin or rock," says Saigo. "You can enjoy the music, which changes like a movie, while drinking. I think that's the true joy of a listening bar."

Ongaku Kissa are different from other bars in that what they are doing is more for community than commerce, Dwyer argues. A successful bar, the filmmaker adds, comes down to the warmth and personality of the owner. "When you step into these kissa, you step into their world, all the music is selected by them," he says. "They want to connect with you through music."

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ESP HiFi is a listening bar in Denver's Santa Fe Arts District that burns incense, serves natural wine and plays vinyl on restored vintage Garrard 401 turntables.

#ANCIENT LENSES

Lenses Before Galilei

The Optics That Existed Long Before the Telescope

When we think of lenses, we often picture modern telescopes, microscopes, or cameras, tools that allow us to explore the cosmos and the microscopic world. Yet, the history of lenses stretches back thousands of years before Galileo ever pointed his telescope towards the stars. Long before the scientific revolution, ancient civilizations were already experimenting with curved glass, crystal, and polished stones to bend light, magnify objects, and perhaps even gaze into the heavens.

Early Beginnings: The Nimrud Lens

One of the most famous examples of an ancient lens is the Nimrud Lens, also known as the Layard Lens, discovered in 1850 by archaeologist Austen Henry Layard at the Assyrian palace of Nimrud in modern-day Iraq. Estimated to be around 3,000 years old (dating to about 750 BCE), the lens was made of rock crystal (quartz) and measured about 38 mm in diameter. It had a convex shape, capable of magnifying small objects or focusing sunlight, much like a primitive magnifying glass.

Scholars have long debated its purpose. Some suggest that it was used as a magnifier for intricate engraving or jewelry work, while others propose that it may have functioned as a fire-starting lens. A few even speculate that ancient Assyrians could have used such lenses for astronomical observations, though this remains controversial. Regardless of its exact use, the Nimrud Lens is undeniable evidence that ancient people understood the basic optical properties of curved, transparent materials.

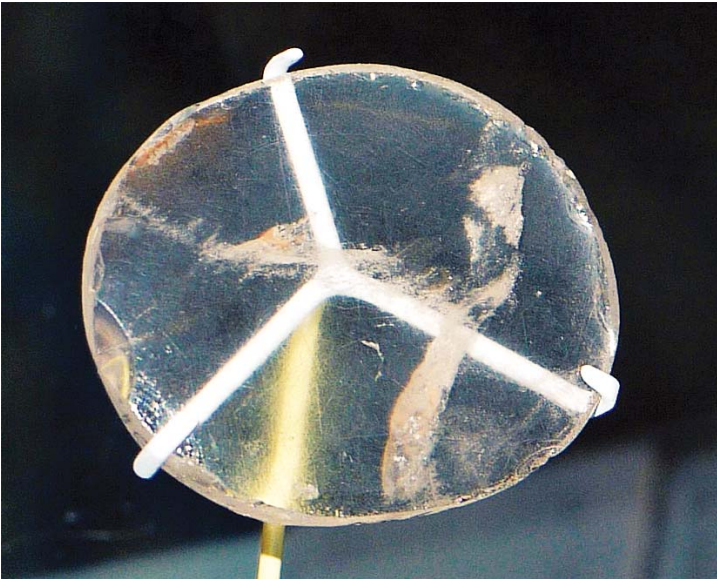
Ancient Egypt and the Mediterranean World

Evidence of lens-like objects appears even earlier in ancient Egypt, where polished crystal and obsidian were used in decorative and possibly optical contexts. Egyptian artisans, known for their meticulous craftsmanship, may have used small convex pieces of quartz or glass to magnify their fine work on jewelry and inscriptions.

Similarly, in ancient Greece and Rome, scholars like Aristophanes and Pliny the Elder described "burning glasses," convex lenses used to focus sunlight and ignite fires. By the first century CE, Roman glassmakers had developed lenses of sufficient clarity to serve both practical and experimental purposes. These early optical tools were sometimes used in medicine, crafts, and even as curiosities for manipulating light.

The Viking Sunstone and Optical Tools of the North

Far to the north, the Vikings may have developed their own optical technology. Archaeological evidence from Viking graves includes crystal objects, possibly lenses, that could have served navigational or decorative purposes. One intriguing related discovery is



the Iceland spar crystal, often referred to as a sunstone, which the Vikings may have used to detect the position of the sun through polarized light on cloudy days. Though not a lens in the traditional sense, it demonstrates that ancient cultures experimented with light manipulation and optics in innovative ways.

Optical Knowledge Before Galileo

By the Middle Ages, scholars across the Islamic world and Europe had begun to study light systematically. Scientists like Ibn al-Haytham (Alhazen), the 11th-century Arab polymath, conducted detailed experiments on reflection and refraction, laying the groundwork for modern optics. Yet, even these breakthroughs drew indirectly on the ancient understanding of light-bending materials, knowledge that had been passed down through centuries of observation and craftsmanship.

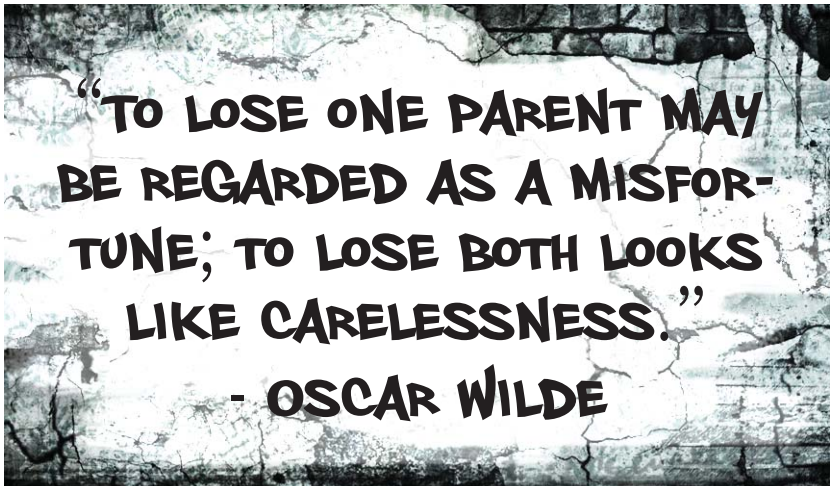
When the telescope was invented in the early 17th century by Dutch lensmakers such as Hans Lippershey and later refined by Galileo Galilei, the technology itself was new, but the science behind it was not. The lenses that made telescopes possible were built on thousands of years of experimentation with glass and crystal.

A Legacy of Ancient Curiosity

The discovery of ancient lenses like the Nimrud crystal challenges our assumptions about early technology. It shows that ancient civilizations were not only skilled artisans but also keen observers of nature's principles. Whether used for magnifying, focusing, or simply marveling at light itself, these early lenses embody the same human curiosity that would one day lead to telescopes, microscopes, and cameras.

Long before Galileo turned his telescope skyward, the first lenses had already changed how people saw their world, literally. From Assyrian artisans shaping rock crystal to Roman scientists experimenting with burning glasses, ancient optics reveal a continuity of curiosity across millennia. These small, transparent artifacts stand as silent witnesses to humanity's oldest impulse: the desire to see farther, understand more, and bring the invisible into focus.

THE WALL



BABY BLUES



ZITS



By Rick Kirkman & Jerry Scott

By Jerry Scott & Jim Borgman