

### #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

#### 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 minimizes 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

en 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.

In the late 1990s, a lot of these places would have their records confiscated or destroyed by the military police," says Tokyo-based documentary filmmaker Nick Dwyer, who spent 10 years researching ongaku kissa for 2024's *A Century in Sound*, which is now showing at festivals across the globe. The听ings themselves were also under threat. Meikyoku Kissä Lion was razed in 1945 during the firebombing of Tokyo.

Poverty was widespread in Japan after the war. Vinyl albums and sound equipment were luxuries that most Japanese could not afford. When American forces left Japan in the 1950s, however, ongaku kissa were revived. The stacks of vinyl left behind by American G.I.s and sold in street markets were played on sound equipment built from discarded American Army circuit boards. Over time, each type of

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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.

#### 2. Gravitropism Interacting with Light

Trees normally grow upright due to gravitropism, the response to gravity. However, growth direction is often the result of multiple competing signals. In Cook pines, the interaction between gravity sensing and light sensing may be slightly unbalanced, producing a consistent but mild deviation from vertical when exposed to long-term directional light patterns.

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#### 4. Genetic Predisposition

It is also possible that Cook pines possess a genetic growth trait that evolved in their native range near the tropics. When planted outside that narrow latitudinal band, this trait may express itself more visibly as a directional lean. In this view, the tilt is not an 'intentional' response to the equator, but a side effect of how the species' growth program interacts with global geometry.

Despite popular claims, Cook pines should not be used as navigational compasses. Not only individual 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.

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

highlight the complex textures found in jazz, while digital versions may flatten the sound. Two of the most historic jazz kisa in Tokyo are Jazz Kissä Eigakai and Dug.

"Kissä have always survived because Japanese people want to hear music in the best possible way, and they want to hear it on these sound systems," says Dwyer.

#### Listening Bars pop up in the United States

One of the first listening bars in the United States was *In Sheep's Clothing*, a Los Angeles bar that opened in 2018 and served up curated vinyl tracks with a side of artisanal coffee. The establishment traded brick and mortar for pop-up events during the pandemic. Yet, other listening bars soon launched over the next couple of years, from as far away as New York and Miami.

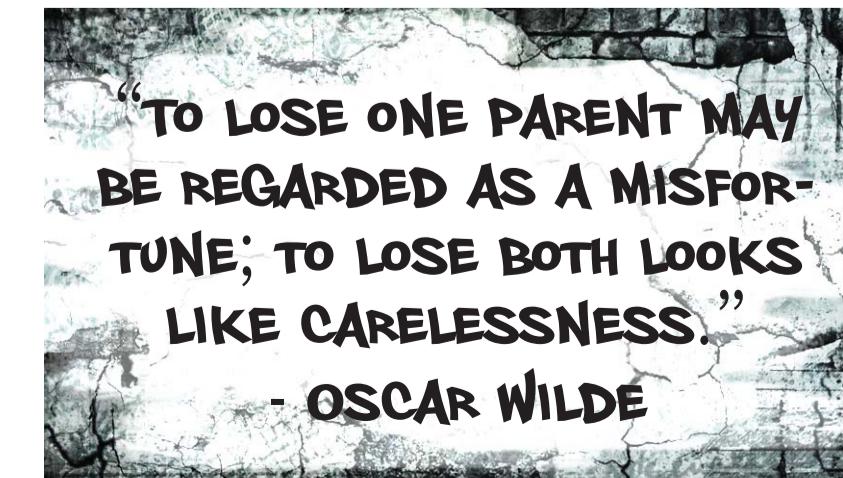
"In Japanese culture, all inanimate objects have a soul. Records have a soul as well," Dwyer notes. "When someone in Japan thinks of the record, they think of the man that pressed it and the history etched into it."

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listeners to better appreciate the music. "It's like a window into another world," says Dwyer. "It's like a portal to another time and place."

Visitors can enjoy their choice of vinyl at listening stations at Silence Please.

### THE WALL



### BABY BLUES



### Savoring National Latte Day: A Toast to Coffee Culture

ational Latte Day, celebrated on February 11, honours the beloved latte, a perfect blend of espresso and steamed milk. This day is a celebration of coffee craftsmanship, cafe culture, and the simple joy a well-made cup brings to daily life. Beyond taste, latte art is a form of art, from intricate latte art to unique flavor infusions, making every cup a personal experience. Coffee enthusiasts and casual drinkers alike use the day to explore new cafes, experiment with home brews, or simply savor a comforting moment. National Latte Day reminds us that life, like coffee, is best enjoyed one sip at a time.



### #ANCIENT LENSES

## Lenses Before Galilei

### The Optics That Existed Long Before the Telescope

hen we think of lenses, we often picture modern telescopes, microscopes, or cameras, tools that allow us to explore the cosmic 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, 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 purposes, although this remains controversial.

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