



BRUCE LICHT

FOUNDER OF *MY ELEVATOR PITCH FOR GOD*, ENTREPRENEUR, AND AUTHOR

Bruce grew up in Lafayette, California, and later received a B.A. in political science from the University of California, Los Angeles, as well as a Graduate Gemologist degree from the Gemological Institute of America in Los Angeles. After graduating, Bruce operated his family's century-old retail fine jewelry business for twenty-two years before selling his share of the company in 2001.

Bruce had a passion for computers and graphic arts, so he went into business with his friend at a national technical publishing company. He served as the company's publisher for seventeen years. The company pioneered the modern labor law poster industry, including inventing the first "all-on-one labor law poster" and "labor law poster compliance plan" before Bruce and his partner sold the company in 2018.

In addition to being the founder of the website, *My Elevator Pitch for God*, Bruce was the co-editor of *Elevator Pitches for God: Volume 1* and author of the cookbook *Immediate Chef: No Previous Experience Required*.

Visitors to *My Elevator Pitch for God* (www.mepfg.com) can read many wonderful, inspirational, and thought-provoking one-page essays by thought leaders with the widest breadth of backgrounds and experiences from all around the world.

Bruce's mission is to introduce more people to God and strengthen the faith of those who already believe. He aims to bring people together, find common ground between different faiths, create meaning in people's lives, and start to move the world in a better direction.

You can help by sending this website to friends and family and posting it on social media!

You can also connect with the website project's LinkedIn page by clicking the link below:
<https://www.linkedin.com/in/bruce-licht>

The Shape of Sound

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Countless mysterious, imperceptible forces shape our world, operating entirely beneath the radar of our daily awareness. If you want a fascinating conversation starter for your next social gathering, try asking this: *Did you know that it is possible to actually see sound?*

Sound is far more than an auditory experience; it possesses a physical, geometric reality as well. In 1787, German physicist and musician, Ernst Chladni¹ published a groundbreaking discovery in his book *Discoveries in the Theory of Sound*.² By dragging a violin bow across the edge of a metal plate covered with fine elements like sand, salt, or powder, Chladni made sound visible. For the first time, he proved empirically that sound travels in waves, revealing an exquisite bridge between physics and art.

The unique, mesmerizing geometric designs that emerged are known today as *Chladni Figures*.³ The mechanics behind them are a beautiful demonstration of vibration and resonance. When the plate vibrates at specific frequencies, it creates a standing wave. This wave divides the surface into two distinct regions: *antinodes*, which vibrate intensely, and *nodes*, which remain completely still. As the plate shakes, the scattered grains bounce away from the chaotic antinodes areas and congregate or settle neatly along the peaceful nodal lines. Within an instant, the particles map out the exact, invisible geometry of the sound wave.

Remarkably, every single note has its own distinctive visual fingerprint. When you change the pitch, the geometry immediately starts to transform into a new pattern. Low frequencies generate simple, bold shapes with wide borders. As the frequency increases, the shorter wavelengths transform the forms into increasingly intricate, highly detailed geometric matrices.⁴

This more than 200-year-old experiment is far from a historical relic. To the contrary, it directly impacts modern technology. Master craftspeople who build, repair, or restore stringed musical instruments still use Chladni patterns to perfectly tune violins and guitars. Aerospace engineers utilize similar vibration mapping to analyze structural integrity and detect hidden weak points in aircraft. Even space scientists are exploring acoustic vibration as a precise method to remove cosmic dust from solar panels on Mars rovers.

Ultimately, Chladni patterns reveal a profound truth about the fabric of reality: what appears to be empty, chaotic space, is governed by a hidden, highly structured order. Just as unseen frequencies organize scattered granules into predictable, breathtaking geometry, the concealed laws of our universe hint at a grander, orchestrated design.

This striking transition from chaos to precise mathematical beauty suggests that the cosmos is not a product of random chance, but rather a masterfully composed, stunningly harmonized symphony with purpose. The reality that every note possesses an inherent, intricate shape points directly toward an intentional Creator—a cosmic Composer—who devised the laws of physics to reflect harmony and beauty. These mesmerizing Chladni figures serve as a visual testament to an ordered, highly structured, governed universe, precisely tuned by a divine intellect, proving that even the silent, unseen forces around us bear the unmistakable fingerprint of a maestro, a virtuoso, a magnificent God.

Footnotes:



- 1) German physicist, musician, and musical instrument inventor - Ernst Chladni (1756 to 1827) – who is sometimes labelled the "*father of acoustics*."
- 2) *Entdeckungen über die Theorie des Klanges* (Discoveries in the Theory of Sound), published in 1787.
- 3) Here are a few videos showing these shapes and how you can actually perform this experiment at home:

https://www.google.com/search?client=opera&hs=DVU&sca_esv=35cfe427b01f9ce2&sxsrf=APpeQntfFnsCawPob0e57PjMcT3RcRIQ4Q:1789066984538&udm=7&fbs=ABfTbFVyMZGZf1hfvX9uKjN_-G8cxpBkeIeqYwoCbfNVc4vKE7pIZzta63Pe5DpJ3XFR9XzI_yj6fb6bfPt1x_5u3nRcG7tR9jg4Omd7-UnDuaw5i86wRQqe-045kPXObjb1eDS649ikhB0y_hSFYfNioDnA60A2i_oC1IzIZywb7ERnDQqnSx10JnfJEaAauzJXglx4123_vjf0_54bKrF6QjM9ne5i3g&q=Video+showing+Chladni+figures&sa=X&ved=2ahUKewjC0d7w2eSWAxV7weYEHSgvIO4QtKgLegQIGRAB&biw=2015&bih=986&dpr=1.8#fpstate=ive&vld=cid:41d5b433,vid:T04iLhJsars,st:0

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- 4) From: The Public Domain Review:
<https://publicdomainreview.org/collection/chladni-figures-1787/>

These diagrams below can to be found in Ernst Chladni's book, *Entdeckungen über die Theorie des Klanges* (Discoveries in the Theory of Sound), published in 1787, in which he details his experiments with vibrating plates and nodal patterns. It should be noted that more than a century earlier, English scientist Robert Hooke had run a violin bow along the edge of a flour-covered glass plate and observed unusual patterns forming. Chladni perfected these experiments using mostly sand and introduced them systematically in his book, providing a significant contribution to the understanding of acoustic phenomena.

