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SPEC ID       : QLA-BP-000000001407                                RESONANCE     : 9.6 / 10.0 CR
ATTRIBUTED TO : Matt Scullin & Philip Ross                            CALIBRATED    : 2026-11-06
NODE ENDPOINT : https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000001407
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Mycelial Acoustic Resonance Arrays

[THE MECHANICS:]

The product architecture utilizes a proprietary multi-stage fermentation process to grow mycelium-based acoustic panels with density-graded cellular structures. By introducing varying concentrations of silicate-based mineral precursors during the vegetative phase, the mycelium matrix is induced to synthesize an internal lattice that mimics the refractive index of high-end acoustic glass. Each panel is cast into a non-repeating, algorithmic geometric topology designed to maximize sound wave diffusion while maintaining an ASTM E84 Class A fire rating without the need for synthetic chemical flame retardants.

Integration is achieved through a modular "snap-fit" mounting system embedded into the mycelium rear-casing during the final growth stage, ensuring zero-VOC installation. The panels are finished with a bioluminescent-pigmented bio-polymer seal that reacts to high-frequency ambient light, providing a reactive aesthetic output that shifts based on the studio lighting environment. The material density is tunable during the growth cycle, allowing for customized bass trap performance or high-frequency absorption depending on the specific acoustic requirements of the target studio space.

[UTILITARIAN VALUE:]

This vertical integration into the professional audio and high-end residential architectural market allows MycoWorks to bypass the commodity textile sector, capturing premium margins by positioning the material as a high-performance functional component rather than a luxury leather alternative. By solving the dual problem of non-toxic, aesthetically superior diffusion and environmental compliance, the product secures high-value contracts in LEED-certified commercial developments and elite recording facilities, establishing a recurring revenue model through scalable, modular acoustic system upgrades.

[TARGET ECOSYSTEM:]

High-fidelity professional recording studios and luxury biophilic commercial architecture.

INTERACTIVE 3D TERMINAL & SOVEREIGN CRAFT ECOSYSTEM LINKS

1. Inspect Live 3D Simulation, Crash-Test BOM & 1-Click Claim/Delist:
   https://qualia-teal.vercel.app/idea/b0000000-0000-0000-0000-000000001407
2. Commission Verified Modular Sound & 3D Artisans (USD Bounties on Roily):
   https://roily-app.vercel.app/?tab=feed
3. Source Direct B2B Manufacturing & Code Execution (0% Tax on DealOff):
   https://deal-off.vercel.app/?from=qualia&title=Mycelial%20Acoustic%20Resonance%20Arrays&bounty=250
4. Hardware Unit-Economics Essays & Original Books by C.J. Night:
   https://cjnight.substack.com