

AQC0578

Nanopublication — Technical Construction — Internal Chimney Architecture

by Arnaud Quercy · BIRD (Charlie Parker) · 2024



TECHNICAL SPECIFICATION FIRST PERSON FACTUAL

RECORD CERAMIC ENGINEERING HIGH

Claim 3: Technical Construction — Internal Chimney Architecture

The complex interlocking geometry required internal chimney channels for steam escape during firing. Without these hidden vents, thermal stress would shatter the piece—structural engineering invisible in the final form, paralleling bebop's technical mastery beneath expressive surface.

CONTEXT

The geometric complexity of the sculpture—with its interlocking planes, curved bands, and cantilevered elements—posed significant structural challenges during fabrication. Ceramic [2] undergoes irreversible vitrification during firing, with temperatures reaching 1000–1300°C depending on clay body and desired finish [2]. During this process, residual moisture and organic binders within the clay body convert to steam and gases that must escape; without adequate venting, internal pressure builds and causes catastrophic failure—the piece explodes or cracks [3].

I engineered internal chimney channels within the geometric forms—hollow vertical cores and gaps between interlocking planes—to allow steam escape during firing. These channels are invisible in the final piece, hidden within the architecture itself. The viewer sees only the completed geometric forms; the engineering that made their survival possible remains concealed.

This technical problem-solving was not optional. The ambition of the geometric configuration—planes that cantilever outward, curved bands that wrap around the central sphere, the overall structural complexity—demanded this hidden infrastructure. I could not simplify the geometry without abandoning the ideamorphic translation of bebop's harmonic complexity. Therefore, the engineering had to solve for the ambition.

This parallels bebop's technical mastery: the hours of practice, the harmonic knowledge, the physical technique required to execute Parker's lines at tempo. The listener hears fluid improvisation; the difficulty is masked. Similarly, the sculpture presents geometric coherence; the structural problem-solving that enabled it remains unseen. The internal chimneys are bebop practice made ceramic—the hidden work that enables the visible result.

REFERENCES

- [1] Arnaud Quercy (2024). BIRD (Charlie Parker) — Catalogue raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0578.html>
<https://arnaudquercy.art/fr/catalogue-raisonne/AQC0578.html>
- [2] "Ceramic Material." *Wikipedia*, https://en.wikipedia.org/wiki/Ceramic_material. [URL to be added]
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