

Nanopublication — Pitch-to-Brightness Register Encoding

by Arnaud Quercy · A Minor - Research on Harmony - Variations 13 · 2025

Claim 2: Pitch-to-Brightness Register Encoding

I encode pitch register through brightness variation: within each pitch-class color family, lower octaves appear darker while higher octaves appear brighter, translating vertical pitch space into tonal value.

CONTEXT

The chromesthetic translation system operates on two axes: pitch class determines hue (following the circle of fifths), while register determines value (lightness/darkness). This dual encoding allows a single color family to represent the same pitch class across multiple octaves while preserving register information.

In this composition, the deep crimson and maroon shapes represent C in lower registers, while brighter red-orange rectangles represent C in higher registers. Similarly, the saturated orange ground and paler cream-yellow areas differentiate register positions within the A and E color families. This brightness gradient creates visual depth that corresponds to the vertical span of the keyboard.

The principle "the lower the pitch, the darker in its color band; the higher, the brighter" ensures that voicing choices—how I spread chord tones across registers at the piano—translate directly into value contrasts in the painting.

REFERENCES

- [1] Arnaud Quercy (2025). A Minor - Research on Harmony - Variations 13 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0929.html>
- [2] Quercy, A. (2025). A Minor - Research on Harmony - Variations 13 (AQC0929). Synesthetic Explorations collection.
- [3] Quercy, A. (2025). Chromesthetic Methodology Foundation Paper. [URL to be added]

EPISTEMIC PROFILE

Claim type artistic statement

Voice first person

Epistemic status empirically grounded

Methodology chromesthetic mapping

Certainty high

CHECKSUM (SHA-256)

0fac9816959f4d79b89d44423e20ed722ca7d-d27eae10e884d413789167a8680

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