

# Nanopublication — Computational Image Analysis - AQC0868

by Arnaud Quercy · C Minor - Research on Harmony - Variations 12 · 2025

## Claim 1: Computational Image Analysis - AQC0868

The artwork C Minor [1] - Research on Harmony - Variations 12 (AQC0868) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2025-12-11. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

### CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 1871x2806 pixels. Analysis date: 2025-12-11.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	BBA1C0	20.6	red-violet	steel gray
2	C69072	15.3	orange	rosybrown
3	DAAB8D	13.5	orange	tan
4	392931	10.6	red	very dark gray
5	CE353B	9.8	red-orange	crimson
6	DDBFCE	8.4	red-violet	thistle
7	7B5F8F	7.7	violet	dusty mauve
8	1C0D12	5.7	red	black
9	554350	5.6	red-violet	dusty mauve
10	EA7019	2.9	orange	chocolate

### Color Families:

Family	%
red-violet	34.6
orange	31.7
red	16.2
red-orange	9.8
violet	7.7

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.22
Mean Local Roughness	0.031
Roughness Uniformity	0.028
Edge Density	0.161
Mean Gradient Magnitude	0.251
Gradient Variance	0.1
Gradient Smoothness	0.0
Directional Coherence	0.002

Metric	Value
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.629
Spatial Variation	0.102
Texture Consistency	0.777

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.524
Brightness Variance	0.22
Brightness Uniformity	0.58
Brightness Skewness	-0.652
Brightness Entropy	7.449
Rms Contrast	0.22
Michelson Contrast	1.0
Weber Contrast	0.768
Mean Local Contrast	0.034
Contrast Uniformity	0.154
Dynamic Range	1.0
Effective Dynamic Range	0.667
Shadow Percentage	21.805
Midtone Percentage	41.484
Highlight Percentage	36.711
Shadow Clipping	0.011
Highlight Clipping	0.006
Tonal Balance	0.034
Fine Contrast	0.017
Medium Contrast	0.042
Coarse Contrast	0.064
Multiscale Contrast Ratio	0.271
Edge Contrast	0.251
Contrast Clustering	0.223

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.693
Color Clustering	0.691
Color Transition Smoothness	0.352
Transition Uniformity	0.305
Sharp Transition Ratio	0.1
Transition Directionality	0.002
Mean Saturation	0.364
Saturation Variance	0.051
Low Saturation Ratio	0.444
Medium Saturation Ratio	0.431
High Saturation Ratio	0.125

Metric	Value
Saturation Clustering	0.997
Hue Concentration	0.79
Complementary Balance	0.0
Analogous Dominance	0.836
Temperature Bias	0.843

## Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

## REFERENCES

- [1] Arnaud Quercy (2025). C Minor - Research on Harmony - Variations 12 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0868.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2025/11/c-minor-research-on-harmony-variations-12\\_hys.html](https://artquamanima.com/en/artworks/2025/11/c-minor-research-on-harmony-variations-12_hys.html)

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h  
<https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

## EPISTEMIC PROFILE

<b>Claim type</b>	computational analysis
<b>Voice</b>	third person
<b>Epistemic status</b>	empirical measurement
<b>Methodology</b>	computational analysis
<b>Certainty</b>	high

## CHECKSUM (SHA-256)

7f41b916b7b8690b5918762b5001ae9f8527059d89eb5c5cc4c7e46 -  
ab5f28af5

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2025
<b>Collection</b>	Synesthetic Explorations
<b>Certificate</b>	20251123-0089
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