

Nanopublication – Computational Image Analysis – AQC0852

by Arnaud Quercy · C Minor – Research on Harmony – Variation 11 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0852

K-means clustering analysis [3] (10 colors) performed on artwork C Minor [1] – Research on Harmony – Variation 11 (AQC0852) [2] by Arnaud Quercy [2] on 2026-02-04. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

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]: 2364x3162 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E88B74	25.6	red-orange	darksalmon
2		EE9A82	21.8	red-orange	lightsalmon
3		E37C63	11.6	red-orange	salmon
4		C94A11	10.3	orange	chocolate
5		F2AE97	8.8	orange	burlywood
6		A05A70	7.7	red	indianred
7		B87181	5.3	red	rosybrown
8		824A61	3.9	red	dusty mauve
9		3D1E18	3.0	red-orange	very dark red
10		59383B	2.1	red	darkslategray

Color Families:

Family	%
red-orange	62.0
orange	19.0
red	19.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.145
Mean Local Roughness	0.012
Roughness Uniformity	0.013
Edge Density	0.036
Mean Gradient Magnitude	0.105
Gradient Variance	0.021
Gradient Smoothness	0.0
Directional Coherence	0.021
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.603
Spatial Variation	0.078
Texture Consistency	0.712

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.582
Brightness Variance	0.145
Brightness Uniformity	0.752
Brightness Skewness	-1.152
Brightness Entropy	6.815
Rms Contrast	0.145
Michelson Contrast	1.0
Weber Contrast	0.462
Mean Local Contrast	0.013
Contrast Uniformity	0.001
Dynamic Range	0.98
Effective Dynamic Range	0.443
Shadow Percentage	5.781
Midtone Percentage	60.719
Highlight Percentage	33.5
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.017
Coarse Contrast	0.028
Multiscale Contrast Ratio	0.226
Edge Contrast	0.105
Contrast Clustering	0.288

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.718
Color Clustering	0.44
Color Transition Smoothness	0.731
Transition Uniformity	0.853
Sharp Transition Ratio	0.1
Transition Directionality	0.029
Mean Saturation	0.517
Saturation Variance	0.025
Low Saturation Ratio	0.015
Medium Saturation Ratio	0.872
High Saturation Ratio	0.113
Saturation Clustering	1.0
Hue Concentration	0.972
Complementary Balance	0.0
Analogous Dominance	0.987
Temperature Bias	0.997

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 - Variation 11 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0852.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/c-minor-research-on-harmony-variation-11_9fk.html

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

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping

C minor triad

geometric watercolor

synesthetic art

color-sound correspondence

harmonic translation

contemporary abstraction

musical visualization

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

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