AQC0749

Nanopublication — Computational Image Analysis - AQC0749

by Arnaud Quercy · C Minor - Research on Harmony - Variation 7 · 2024

Claim 1: Computational Image Analysis - AQC0749

> K-means clustering analysis [3] (10 colors) performed on artwork C Minor [1] - Research on Harmony - Variation 7 (AQC0749) [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]: 2964x3952 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		5A4062	21.5	red-violet	dusty mauve
2		9A544B	15.1	red-orange	burnt sienna
3		BC433E	15.1	red-orange	burnt sienna
4		E64B3B	14.4	red-orange	tomato
5		A991D6	8.1	violet	mediumpurple
6		302B36	7.3	violet	very dark gray
7		E8C7C8	5.6	red-orange	thistle
8		C97162	5.2	red-orange	indianred
9		EF8414	3.9	orange	darkorange
10		77629E	3.6	violet	dusty mauve
11		23050A	0.3	red	very dark gray [Accent]
12		706148	0.3	yellow-orange	dimgray [Accent]

Color Families:

Family	%
red-orange	55.5
red-violet	21.5
violet	19.0
orange	3.9
red	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
23050A	red	very dark gray	13.3
706148	yellow-orange	dimgray	16.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.154
Mean Local Roughness	0.011
Roughness Uniformity	0.014
Edge Density	0.041
Mean Gradient Magnitude	0.114
Gradient Variance	0.032
Gradient Smoothness	0.0
Directional Coherence	0.021
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.584
Spatial Variation	0.081
Texture Consistency	0.36

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.434
Brightness Variance	0.154
Brightness Uniformity	0.644
Brightness Skewness	0.678
Brightness Entropy	7.134
Rms Contrast	0.154
Michelson Contrast	1.0
Weber Contrast	0.595
Mean Local Contrast	0.014
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.569
Shadow Percentage	24.38
Midtone Percentage	67.51
Highlight Percentage	8.11
Shadow Clipping	0.001
Highlight Clipping	0.002
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.018
Coarse Contrast	0.032
Multiscale Contrast Ratio	0.171
Edge Contrast	0.114
Contrast Clustering	0.64

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.753
Color Clustering	0.283
Color Transition Smoothness	0.702
Transition Uniformity	0.779

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.03
Mean Saturation	0.513
Saturation Variance	0.042
Low Saturation Ratio	0.136
Medium Saturation Ratio	0.621
High Saturation Ratio	0.243
Saturation Clustering	1.0
Hue Concentration	0.659
Complementary Balance	0.003
Analogous Dominance	0.661
Temperature Bias	0.618

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 (2024). C Minor - Research on Harmony - Variation 7 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0749.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-minor-research-on-harmony-variation-7_8bi.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

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

95b23476866aefc2b487f7181777a0a877a12921be360eae93f5d-fe11e8e55d1

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