Nanopublication — Computational Image Analysis - AQC0560

by Arnaud Quercy · C Major9 - Research on Harmony - Variation 12 · 2024

Claim 1: Computational Image Analysis - AQC0560

Computational image analysis [3] of artwork C Major9 - Research [1] on Harmony - Variation 12 (AQC0560) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

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]: 2882x3842 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		262532	19.0	violet	very dark gray
2		141423	17.5	violet	very dark gray
3		CF5D32	12.2	orange	chocolate
4		E8774C	10.8	orange	coral
5		E9B69D	9.5	orange	burlywood
6		E4D9CD	8.0	orange	gainsboro
7		D3A38D	7.4	orange	tan
8		CEC3B7	7.1	orange	silver
9		413B47	6.7	violet	dusty mauve
10		706268	1.8	red	dusty mauve
11		8F4840	0.3	red-orange	burnt sienna [Accent]
12		9B8E7D	0.3	yellow-orange	gray [Accent]

Color Families:

Family	%
orange	55.0
violet	43.2
red	1.8
red-orange	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
8F4840	red-orange	burnt sienna	34.1
9B8E7D	yellow-orange	gray	11.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.283
Mean Local Roughness	0.013
Roughness Uniformity	0.011
Edge Density	0.056
Mean Gradient Magnitude	0.145
Gradient Variance	0.021
Gradient Smoothness	0.0
Directional Coherence	0.012
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.581
Spatial Variation	0.245
Texture Consistency	0.355

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.437
Brightness Variance	0.283
Brightness Uniformity	0.351
Brightness Skewness	0.066
Brightness Entropy	7.514
Rms Contrast	0.283
Michelson Contrast	1.0
Weber Contrast	0.883
Mean Local Contrast	0.016
Contrast Uniformity	0.252
Dynamic Range	1.0
Effective Dynamic Range	0.773
Shadow Percentage	43.348
Midtone Percentage	25.539
Highlight Percentage	31.113
Shadow Clipping	0.001
Highlight Clipping	0.001
Tonal Balance	0.175
Fine Contrast	0.006
Medium Contrast	0.02
Coarse Contrast	0.042
Multiscale Contrast Ratio	0.156
Edge Contrast	0.145
Contrast Clustering	0.645

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.761
Color Clustering	0.769

Metric	Value
Color Transition Smoothness	0.614
Transition Uniformity	0.849
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.384
Saturation Variance	0.049
Low Saturation Ratio	0.401
Medium Saturation Ratio	0.453
High Saturation Ratio	0.146
Saturation Clustering	0.999
Hue Concentration	0.407
Complementary Balance	0.0
Analogous Dominance	0.536
Temperature Bias	0.482

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 Major9 - Research on Harmony - Variation 12 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0560.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-12_6a0.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/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)

8b7802256fa1a2b7d7aad8025dd07973ea005367e6f-b641e9a8821786de8a8db

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240306-0056
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Version	1
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