AQC0549

Nanopublication — Computational Image Analysis - AQC0549

by Arnaud Quercy · C Major9 - Research on Harmony - Variation 1 · 2024

Claim 1: Computational Image Analysis - AQC0549

> K-means clustering analysis [3] (10 colors) performed on artwork C Major9 - Research [1] on Harmony - Variation 1 (AQC0549) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D09270	17.0	orange	darksalmon
2		C96636	15.8	orange	chocolate
3		272121	14.0	gray	very dark gray
4		BE8262	10.9	orange	peru
5		160F10	9.6	black	black
6		DE7C4C	9.6	orange	coral
7		E4A27D	9.2	orange	burlywood
8		B35122	9.0	orange	burnt sienna
9		D1C5B2	2.8	yellow-orange	silver
10		4A403E	2.2	red-orange	darkslategray
11		A49D8C	0.3	yellow	rosybrown [Accent]

Color Families:

Family	%
orange	71.4
gray	14.0
black	9.6
yellow-orange	2.8
red-orange	2.2
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
A49D8C	yellow	rosybrown	10.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.217
Mean Local Roughness	0.028
Roughness Uniformity	0.016
Edge Density	0.193
Mean Gradient Magnitude	0.236
Gradient Variance	0.037
Gradient Smoothness	0.188
Directional Coherence	0.018
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.647
Spatial Variation	0.171
Texture Consistency	0.331

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.458
Brightness Variance	0.217
Brightness Uniformity	0.526
Brightness Skewness	-0.678
Brightness Entropy	7.248
Rms Contrast	0.217
Michelson Contrast	1.0
Weber Contrast	0.843
Mean Local Contrast	0.031
Contrast Uniformity	0.455
Dynamic Range	0.996
Effective Dynamic Range	0.639
Shadow Percentage	25.807
Midtone Percentage	61.678
Highlight Percentage	12.515
Shadow Clipping	0.028
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.015
Medium Contrast	0.038
Coarse Contrast	0.058
Multiscale Contrast Ratio	0.269
Edge Contrast	0.236
Contrast Clustering	0.669

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.793
Color Clustering	0.599
Color Transition Smoothness	0.407
Transition Uniformity	0.774
Sharp Transition Ratio	0.1
Transition Directionality	0.018

Metric	Value
Mean Saturation	0.49
Saturation Variance	0.049
Low Saturation Ratio	0.223
Medium Saturation Ratio	0.543
High Saturation Ratio	0.234
Saturation Clustering	0.998
Hue Concentration	0.981
Complementary Balance	0.0
Analogous Dominance	0.996
Temperature Bias	0.998

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 1 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0549.html

[2] Quercy, A. (2024). C Major9 - Research on Harmony - Variation 1 - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-1_65q.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)

056fa5f8b2ce04f847dff58419b8a4f86b173fc089b91b89ccc5f99b54514bd8

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