AQC0556

Nanopublication — Computational Image Analysis - AQC0556

by Arnaud Quercy · C Major9 - Research on Harmony - Variation 8 · 2024

Claim 1: Computational Image Analysis - AQC0556

> K-means clustering analysis [3] (10 colors) performed on artwork C Major9 - Research [1] on Harmony - Variation 8 (AQC0556) [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		2D2329	17.1	red-violet	very dark gray
2		44373C	12.7	red	dusty mauve
3		D29178	12.5	orange	darksalmon
4		CA4F1C	11.7	orange	chocolate
5		E9A991	11.6	orange	burlywood
6		180F14	11.1	red-violet	black
7		E76D3A	10.1	orange	tomato
8		605054	6.8	red	dimgray
9		D5CCC0	3.6	yellow-orange	lightgray
10		887577	2.9	red	gray
11		ECE6D3	0.3	yellow	antiquewhite [Accent]
12		8D4331	0.3	red-orange	burnt sienna [Accent]

Color Families:

Family	%
orange	45.8
red-violet	28.2
red	22.4
yellow-orange	3.6
yellow	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
ECE6D3	yellow	antiquewhite	10.0
8D4331	red-orange	burnt sienna	39.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.236
Mean Local Roughness	0.025
Roughness Uniformity	0.018
Edge Density	0.144
Mean Gradient Magnitude	0.245
Gradient Variance	0.055
Gradient Smoothness	0.044
Directional Coherence	0.015
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.596
Spatial Variation	0.172
Texture Consistency	0.563

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.4
Brightness Variance	0.236
Brightness Uniformity	0.409
Brightness Skewness	0.141
Brightness Entropy	7.659
Rms Contrast	0.236
Michelson Contrast	1.0
Weber Contrast	0.852
Mean Local Contrast	0.029
Contrast Uniformity	0.32
Dynamic Range	1.0
Effective Dynamic Range	0.694
Shadow Percentage	44.414
Midtone Percentage	37.382
Highlight Percentage	18.203
Shadow Clipping	0.017
Highlight Clipping	0.001
Tonal Balance	0.374
Fine Contrast	0.013
Medium Contrast	0.036
Coarse Contrast	0.069
Multiscale Contrast Ratio	0.193
Edge Contrast	0.245
Contrast Clustering	0.437

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.762
Color Clustering	0.623
Color Transition Smoothness	0.342
Transition Uniformity	0.591

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.017
Mean Saturation	0.414
Saturation Variance	0.061
Low Saturation Ratio	0.378
Medium Saturation Ratio	0.411
High Saturation Ratio	0.211
Saturation Clustering	0.998
Hue Concentration	0.852
Complementary Balance	0.0
Analogous Dominance	0.903
Temperature Bias	0.917

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 8 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0556.html

[2] Quercy, A. (2024). C Major9 - Research on Harmony - Variation 8 - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-8_68g.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)

243b5c28a1215feb180b175d97e9b2c44958d746b3c51a181d0d8d2863c-c4de4

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