AQC0774

Nanopublication — Computational Image Analysis - AQC0774

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

Claim 1: Computational Image Analysis - AQC0774

> K-means clustering analysis [3] (10 colors) performed on artwork C Major [1] - Research on Harmony - Variation 7 (AQC0774) [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]: 2454x3682 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		BCB3A9	19.3	yellow-orange	steel gray
2		262328	15.2	gray	very dark gray
3		9A3C36	14.0	red-orange	brown
4		C9443E	13.1	red-orange	indianred
5		CEC0B8	9.7	orange	silver
6		39373E	8.8	gray	dusty mauve
7		A9A196	7.7	yellow-orange	steel gray
8		C08B56	6.0	orange	peru
9		E7780B	3.5	orange	chocolate
10		585759	2.7	gray	dusty mauve
11		160208	0.3	red	black [Accent]
12		81763E	0.3	yellow	olivedrab [Accent]

Color Families:

Family	%
red-orange	27.2
yellow-orange	27.0
gray	26.6
orange	19.2
red	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
160208	red	black	8.1
81763E	yellow	olivedrab	32.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.22
Mean Local Roughness	0.011
Roughness Uniformity	0.011
Edge Density	0.041
Mean Gradient Magnitude	0.121
Gradient Variance	0.028
Gradient Smoothness	0.0
Directional Coherence	0.024
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.567
Spatial Variation	0.154
Texture Consistency	0.592

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.471
Brightness Variance	0.22
Brightness Uniformity	0.533
Brightness Skewness	-0.118
Brightness Entropy	7.316
Rms Contrast	0.22
Michelson Contrast	1.0
Weber Contrast	0.788
Mean Local Contrast	0.014
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.62
Shadow Percentage	28.969
Midtone Percentage	40.319
Highlight Percentage	30.712
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.043
Fine Contrast	0.005
Medium Contrast	0.018
Coarse Contrast	0.036
Multiscale Contrast Ratio	0.146
Edge Contrast	0.121
Contrast Clustering	0.408

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.764
Color Clustering	0.497
Color Transition Smoothness	0.676
Transition Uniformity	0.795

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.035
Mean Saturation	0.342
Saturation Variance	0.083
Low Saturation Ratio	0.602
Medium Saturation Ratio	0.256
High Saturation Ratio	0.142
Saturation Clustering	1.0
Hue Concentration	0.815
Complementary Balance	0.024
Analogous Dominance	0.903
Temperature Bias	0.829

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 Major - Research on Harmony - Variation 7 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0774.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major-research-on-harmony-variation-7_8l8.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)

a1153071c2161e9619caf29c76ab4a2cb5fc37d2bcb5fa66d977967eecd-f2e34

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