AQC0741

Nanopublication — Computational Image Analysis - AQC0741

by Arnaud Quercy · A Major - Research on Harmony - Variation 2 · 2024

Claim 1: Computational Image Analysis - AQC0741

> Computational image analysis [3] of artwork A Major [1] - Research on Harmony - Variation 2 (AQC0741) [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]: 2958x3944 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D57919	20.5	orange	chocolate
2		9D9985	16.1	yellow	rosybrown
3		A76412	13.7	orange	burnt sienna
4		DCC0BA	11.8	red-orange	silver
5		D2B37E	9.3	yellow-orange	tan
6		C59C5D	8.6	yellow-orange	ochre
7		34768E	8.5	blue	steelblue
8		828569	7.5	yellow-green	gray
9		62461B	2.7	yellow-orange	russet
10		1D0F0C	1.4	red-orange	black
11		041E35	0.3	blue-violet	very dark indigo [Accent]
12		CB93A1	0.3	red	rosybrown [Accent]
13		618C96	0.3	blue-green	blue gray [Accent]
14		597F77	0.3	green	dimgray [Accent]

Color Families:

Family	%
orange	34.1
yellow-orange	20.5
yellow	16.1
red-orange	13.2
blue	8.5
yellow-green	7.5
blue-violet	0.3
red	0.3
blue-green	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
041E35	blue-violet	very dark indigo	19.1
CB93A1	red	rosybrown	23.0
618C96	blue-green	blue gray	15.6
597F77	green	dimgray	15.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.143
Mean Local Roughness	0.018
Roughness Uniformity	0.015
Edge Density	0.083
Mean Gradient Magnitude	0.164
Gradient Variance	0.039
Gradient Smoothness	0.0
Directional Coherence	0.01
Pattern Complexity	0.114
Pattern Repetition	1.0
Detail Frequency Ratio	0.601
Spatial Variation	0.104
Texture Consistency	0.606

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.562
Brightness Variance	0.143
Brightness Uniformity	0.746
Brightness Skewness	-0.385
Brightness Entropy	7.091
Rms Contrast	0.143
Michelson Contrast	1.0
Weber Contrast	0.474
Mean Local Contrast	0.021
Contrast Uniformity	0.132
Dynamic Range	1.0
Effective Dynamic Range	0.459
Shadow Percentage	4.656
Midtone Percentage	71.724
Highlight Percentage	23.62
Shadow Clipping	0.006
Highlight Clipping	0.0
Tonal Balance	0.0

Metric	Value
Fine Contrast	0.009
Medium Contrast	0.026
Coarse Contrast	0.043
Multiscale Contrast Ratio	0.201
Edge Contrast	0.164
Contrast Clustering	0.394

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.761
Color Clustering	0.484
Color Transition Smoothness	0.59
Transition Uniformity	0.735
Sharp Transition Ratio	0.1
Transition Directionality	0.011
Mean Saturation	0.527
Saturation Variance	0.1
Low Saturation Ratio	0.343
Medium Saturation Ratio	0.271
High Saturation Ratio	0.386
Saturation Clustering	0.999
Hue Concentration	0.742
Complementary Balance	0.048
Analogous Dominance	0.869
Temperature Bias	0.676

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). A Major - Research on Harmony - Variation 2 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0741.html

[2] Quercy, A. (2024). A Major - Research on Harmony - Variation 2 - Gallery. https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony-variation-2_88e.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)

1cc19bac364da7709b3ee49233fc23d-dc64d999056980665805c5e4579eaffc6

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0238
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