AQC0647

Nanopublication — Computational Image Analysis - AQC0647

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

Claim 1: Computational Image Analysis - AQC0647

> Computational image analysis [3] of artwork A Major [1] - Research on Harmony (AQC0647) [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]: 1984x2976 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		EA9218	37.5	orange	goldenrod
2		E7B626	13.8	yellow-orange	orange
3		20524C	10.7	green	darkslategray
4		F1CB36	9.4	yellow-orange	gold
5		15110C	8.7	black	black
6		549995	6.9	green	cadetblue
7		3C6462	6.1	green	darkslategrey
8		D2D4C8	3.1	yellow-green	lightgray
9		4E3C24	2.0	orange	dark brown
10		A6A352	1.7	yellow	ochre

Color Families:

Family	%
orange	39.5
green	23.7
yellow-orange	23.2
black	8.7
yellow-green	3.1
yellow	1.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.218
Mean Local Roughness	0.024
Roughness Uniformity	0.032
Edge Density	0.077
Mean Gradient Magnitude	0.184
Gradient Variance	0.099
Gradient Smoothness	0.0

Metric	Value
Directional Coherence	0.02
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.644
Spatial Variation	0.164
Texture Consistency	0.463

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.537
Brightness Variance	0.218
Brightness Uniformity	0.593
Brightness Skewness	-0.861
Brightness Entropy	7.17
Rms Contrast	0.218
Michelson Contrast	1.0
Weber Contrast	0.708
Mean Local Contrast	0.025
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.718
Shadow Percentage	23.995
Midtone Percentage	47.533
Highlight Percentage	28.471
Shadow Clipping	0.045
Highlight Clipping	0.015
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.033
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.263
Edge Contrast	0.184
Contrast Clustering	0.537

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.751
Color Clustering	0.628
Color Transition Smoothness	0.531
Transition Uniformity	0.325
Sharp Transition Ratio	0.1
Transition Directionality	0.028
Mean Saturation	0.711
Saturation Variance	0.053
Low Saturation Ratio	0.065
Medium Saturation Ratio	0.305

Metric	Value
High Saturation Ratio	0.629
Saturation Clustering	0.997
Hue Concentration	0.584
Complementary Balance	0.006
Analogous Dominance	0.748
Temperature Bias	0.487

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 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0647.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony_77u.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)

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47e47c-
ce8163a8294a67a1c44d5b2d5c772c80cf9fe3389d369450399b8be7b1
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Artist	Arnaud Quercy
Date	2024
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