AQC0742

Nanopublication — Computational Image Analysis - AQC0742

by Arnaud Quercy · A Major - Research on Harmony - Variation 3 · 2024

Claim 1: Computational Image Analysis - AQC0742

> Computational image analysis [3] of artwork A Major [1] - Research on Harmony - Variation 3 (AQC0742) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D1A97F	20.8	orange	tan
2		AFA89B	13.6	yellow-orange	steel gray
3		999183	12.8	yellow-orange	gray
4		D67A10	11.8	orange	chocolate
5		3D89A4	11.8	blue	steelblue
6		E18E23	8.3	orange	goldenrod
7		DACFC7	7.0	orange	lightgray
8		643B22	6.2	orange	russet
9		926B2B	5.9	yellow-orange	burnt sienna
10		1D1514	1.8	black	black
11		681000	0.3	red-orange	maroon [Accent]
12		636F15	0.3	yellow-green	dark brown [Accent]
13		2A4546	0.3	blue-green	darkslategray [Accent]
14		6E6B11	0.3	yellow	olive [Accent]
15		374544	0.3	green	darkslategray [Accent]

Color Families:

Family	%
orange	54.1
yellow-orange	32.3
blue	11.8
black	1.8
red-orange	0.3
yellow-green	0.3
blue-green	0.3
yellow	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
681000	red-orange	maroon	48.9
636F15	yellow-green	dark brown	48.1
2A4546	blue-green	darkslategray	10.8
6E6B11	yellow	olive	46.9
374544	green	darkslategray	6.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.151
Mean Local Roughness	0.016
Roughness Uniformity	0.015
Edge Density	0.072
Mean Gradient Magnitude	0.151
Gradient Variance	0.039
Gradient Smoothness	0.0
Directional Coherence	0.011
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.594
Spatial Variation	0.096
Texture Consistency	0.605

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.579
Brightness Variance	0.151
Brightness Uniformity	0.74
Brightness Skewness	-0.852
Brightness Entropy	7.114
Rms Contrast	0.151
Michelson Contrast	1.0
Weber Contrast	0.495
Mean Local Contrast	0.019
Contrast Uniformity	0.041
Dynamic Range	1.0
Effective Dynamic Range	0.533
Shadow Percentage	7.235
Midtone Percentage	62.755
Highlight Percentage	30.011
Shadow Clipping	0.007
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.024
Coarse Contrast	0.04

Metric	Value
Multiscale Contrast Ratio	0.184
Edge Contrast	0.151
Contrast Clustering	0.395

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.767
Color Clustering	0.509
Color Transition Smoothness	0.622
Transition Uniformity	0.734
Sharp Transition Ratio	0.1
Transition Directionality	0.015
Mean Saturation	0.466
Saturation Variance	0.093
Low Saturation Ratio	0.342
Medium Saturation Ratio	0.379
High Saturation Ratio	0.279
Saturation Clustering	0.999
Hue Concentration	0.638
Complementary Balance	0.095
Analogous Dominance	0.817
Temperature Bias	0.629

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 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0742.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony-variation-3_88s.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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