AQC0690

Nanopublication — Computational Image Analysis - AQC0690

by Arnaud Quercy · Ab Major - Research on Harmony - Variation 9 · 2024

Claim 1: Computational Image Analysis - AQC0690

> K-means clustering analysis [3] (10 colors) performed on artwork Ab Major [1] - Research on Harmony - Variation 9 (AQC0690) [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]: 2093x2617 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E34914	23.0	orange	orangered
2		D97053	14.1	red-orange	indianred
3		DE9C77	13.4	orange	darksalmon
4		382A24	11.4	orange	very dark gray
5		403B49	8.9	violet	dusty mauve
6		745D73	8.5	red-violet	dusty mauve
7		C92C21	8.0	red-orange	firebrick
8		C0A37B	7.8	yellow-orange	ochre
9		705247	3.1	orange	dimgray
10		833229	1.8	red-orange	russet
11		516D86	0.3	blue-violet	grayish purple [Accent]
12		967686	0.3	red	dusty mauve [Accent]

Color Families:

Family	%
orange	50.9
red-orange	23.9
violet	8.9
red-violet	8.5
yellow-orange	7.8
blue-violet	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
516D86	blue-violet	grayish purple	17.3
967686	red	dusty mauve	15.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.16
Mean Local Roughness	0.003
Roughness Uniformity	0.012
Edge Density	0.006
Mean Gradient Magnitude	0.025
Gradient Variance	0.013
Gradient Smoothness	0.0
Directional Coherence	0.503
Pattern Complexity	0.069
Pattern Repetition	1.0
Detail Frequency Ratio	0.62
Spatial Variation	0.112
Texture Consistency	0.523

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.443
Brightness Variance	0.16
Brightness Uniformity	0.64
Brightness Skewness	-0.062
Brightness Entropy	6.622
Rms Contrast	0.16
Michelson Contrast	0.983
Weber Contrast	0.712
Mean Local Contrast	0.004
Contrast Uniformity	0.0
Dynamic Range	0.933
Effective Dynamic Range	0.506
Shadow Percentage	22.074
Midtone Percentage	66.483
Highlight Percentage	11.443
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.002
Medium Contrast	0.005
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.025
Contrast Clustering	0.477

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.782
Color Clustering	0.456

Metric	Value
Color Transition Smoothness	0.923
Transition Uniformity	0.913
Sharp Transition Ratio	0.1
Transition Directionality	0.506
Mean Saturation	0.554
Saturation Variance	0.069
Low Saturation Ratio	0.201
Medium Saturation Ratio	0.481
High Saturation Ratio	0.318
Saturation Clustering	1.0
Hue Concentration	0.893
Complementary Balance	0.008
Analogous Dominance	0.921
Temperature Bias	0.949

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). Ab Major - Research on Harmony - Variation 9 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0690.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-research-on-harmony-variation-9_7ok.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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