AQC0536

Nanopublication — Computational Image Analysis - AQC0536

by Arnaud Quercy · Ab Major 9 - Research on Harmony - Variation 4 · 2024

Claim 1: Computational Image Analysis - AQC0536

> Computational image analysis [3] of artwork Ab Major [1] 9 - Research on Harmony - Variation 4 (AQC0536) [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]: 2132x2843 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C96370	23.6	red-orange	indianred
2		0A307C	15.9	violet	indigo
3		0E0F26	14.8	violet	very dark purple
4		B75663	12.2	red-orange	burnt sienna
5		040F46	11.5	violet	very dark purple
6		071C5D	7.2	violet	very dark purple
7		2E2F4A	5.1	violet	dusty mauve
8		C77C8F	4.9	red	rosybrown
9		D5C9CA	2.5	white	lightgray
10		695158	2.3	red	dimgray
11		8791A6	0.3	blue-violet	lightslategray [Accent]
12		523C2C	0.3	orange	dark brown [Accent]
13		957487	0.3	red-violet	dusty mauve [Accent]
14		504231	0.3	yellow-orange	dark brown [Accent]

Color Families:

Family	%
violet	54.4
red-orange	35.9
red	7.2
white	2.5
blue-violet	0.3
orange	0.3
red-violet	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
8791A6	blue-violet	lightslategray	12.0
523C2C	orange	dark brown	15.7
957487	red-violet	dusty mauve	16.8
504231	yellow-orange	dark brown	13.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.211
Mean Local Roughness	0.014
Roughness Uniformity	0.016
Edge Density	0.074
Mean Gradient Magnitude	0.113
Gradient Variance	0.026
Gradient Smoothness	0.0
Directional Coherence	0.15
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.644
Spatial Variation	0.183
Texture Consistency	0.248

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.301
Brightness Variance	0.211
Brightness Uniformity	0.299
Brightness Skewness	0.368
Brightness Entropy	6.871
Rms Contrast	0.211
Michelson Contrast	1.0
Weber Contrast	0.884
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.533
Shadow Percentage	55.385
Midtone Percentage	41.818
Highlight Percentage	2.797
Shadow Clipping	0.0
Highlight Clipping	0.002
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.019
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.113

Metric	Value
Contrast Clustering	0.752

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.783
Color Clustering	0.721
Color Transition Smoothness	0.706
Transition Uniformity	0.84
Sharp Transition Ratio	0.1
Transition Directionality	0.166
Mean Saturation	0.647
Saturation Variance	0.06
Low Saturation Ratio	0.055
Medium Saturation Ratio	0.536
High Saturation Ratio	0.409
Saturation Clustering	1.0
Hue Concentration	0.479
Complementary Balance	0.004
Analogous Dominance	0.56
Temperature Bias	-0.057

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 9 - Research on Harmony - Variation 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0536.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-9-research-on-harmony-variation-4_60o.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)

aa975eb6db6d31039430c4bf5c48c930d3d1a58ab-d1928d1b1164ea9e1a93892

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