AQC0535

Nanopublication — Computational Image Analysis - AQC0535

by Arnaud Quercy · Ab Major 9 - Research on Harmony - Variation 3 · 2024

Claim 1: Computational Image Analysis - AQC0535

> Computational image analysis [3] of artwork Ab Major [1] 9 - Research on Harmony - Variation 3 (AQC0535) [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]: 2543x3814 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E86178	36.3	red	lightcoral
2		0A1D59	15.4	violet	very dark purple
3		CD5C6B	10.5	red-orange	indianred
4		EB7B8B	9.0	red	palevioletred
5		1C3975	7.9	violet	dusty mauve
6		110F1C	6.4	violet	black
7		F89FAA	5.5	red	lightpink
8		6A4737	3.7	orange	dark brown
9		DDE0E2	2.8	white	gainsboro
10		67779C	2.5	blue-violet	grayish purple
11		634064	0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
red	50.8
violet	29.7
red-orange	10.5
orange	3.7
white	2.8
blue-violet	2.5
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
634064	red-violet	dusty mauve	26.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.222
Mean Local Roughness	0.031
Roughness Uniformity	0.033
Edge Density	0.133
Mean Gradient Magnitude	0.257
Gradient Variance	0.103
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.14
Pattern Repetition	1.0
Detail Frequency Ratio	0.653
Spatial Variation	0.123
Texture Consistency	0.461

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.437
Brightness Variance	0.222
Brightness Uniformity	0.492
Brightness Skewness	-0.388
Brightness Entropy	7.119
Rms Contrast	0.222
Michelson Contrast	1.0
Weber Contrast	0.845
Mean Local Contrast	0.035
Contrast Uniformity	0.071
Dynamic Range	1.0
Effective Dynamic Range	0.675
Shadow Percentage	31.582
Midtone Percentage	58.869
Highlight Percentage	9.549
Shadow Clipping	0.044
Highlight Clipping	0.019
Tonal Balance	0.0
Fine Contrast	0.017
Medium Contrast	0.043
Coarse Contrast	0.067
Multiscale Contrast Ratio	0.26
Edge Contrast	0.257
Contrast Clustering	0.539

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.726
Color Clustering	0.702

Metric	Value
Color Transition Smoothness	0.334
Transition Uniformity	0.282
Sharp Transition Ratio	0.1
Transition Directionality	0.022
Mean Saturation	0.599
Saturation Variance	0.044
Low Saturation Ratio	0.065
Medium Saturation Ratio	0.694
High Saturation Ratio	0.24
Saturation Clustering	0.996
Hue Concentration	0.554
Complementary Balance	0.004
Analogous Dominance	0.682
Temperature Bias	0.389

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 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0535.html

[2] Quercy, A. (2024). Ab Major 9 - Research on Harmony - Variation 3 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-9-research-on-harmony-variation-3_60a.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)

2a8a7f32f3b3735ead0c19a37a27fedfc9008e50d-b55c836973c7a5e134255c5

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