AQC0537

Nanopublication — Computational Image Analysis - AQC0537

by Arnaud Quercy · Ab Major 9 - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0537

> Computational image analysis [3] of artwork Ab Major [1] 9 - Research on Harmony - Variation 5 (AQC0537) [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		B97A8A	16.4	red	rosybrown
2		15265D	13.7	violet	very dark purple
3		CD6674	13.6	red	indianred
4		A76977	12.9	red	gray
5		B6545F	12.5	red-orange	burnt sienna
6		0D0C1F	10.9	violet	very dark gray
7		36497C	8.6	violet	dusty mauve
8		E08497	7.2	red	palevioletred
9		CFC3C9	2.2	red-violet	silver
10		784541	2.0	red-orange	burnt sienna
11		868EA2	0.3	blue-violet	lightslategray [Accent]

Color Families:

Family	%
red	50.2
violet	33.1
red-orange	14.5
red-violet	2.2
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
868EA2	blue-violet	lightslategray	12.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.197
Mean Local Roughness	0.027
Roughness Uniformity	0.022
Edge Density	0.158
Mean Gradient Magnitude	0.216
Gradient Variance	0.051
Gradient Smoothness	0.0
Directional Coherence	0.019
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.661
Spatial Variation	0.152
Texture Consistency	0.447

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.407
Brightness Variance	0.197
Brightness Uniformity	0.517
Brightness Skewness	-0.507
Brightness Entropy	7.186
Rms Contrast	0.197
Michelson Contrast	1.0
Weber Contrast	0.856
Mean Local Contrast	0.029
Contrast Uniformity	0.253
Dynamic Range	1.0
Effective Dynamic Range	0.592
Shadow Percentage	32.197
Midtone Percentage	63.893
Highlight Percentage	3.91
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.015
Medium Contrast	0.036
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.216
Contrast Clustering	0.553

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.748
Color Clustering	0.68
Color Transition Smoothness	0.438
Transition Uniformity	0.658
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.021
Mean Saturation	0.503
Saturation Variance	0.031
Low Saturation Ratio	0.075
Medium Saturation Ratio	0.782
High Saturation Ratio	0.143
Saturation Clustering	0.998
Hue Concentration	0.582
Complementary Balance	0.0
Analogous Dominance	0.662
Temperature Bias	0.405

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 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0537.html

[2] Quercy, A. (2024). Ab Major 9 - Research on Harmony - Variation 5 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-9-research-on-harmony-variation-5_612.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)

29e53e8b66eef7114a882b1b8a5ad582d514c735554cd06103a37f5c5e2760e3

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