AQC0533

Nanopublication — Computational Image Analysis - AQC0533

by Arnaud Quercy · Ab Major 9 - Research on Harmony - Variation 1 · 2024

Claim 1: Computational Image Analysis - AQC0533

> K-means clustering analysis [3] (10 colors) performed on artwork Ab Major [1] 9 - Research on Harmony - Variation 1 (AQC0533) [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]: 2132x2843 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		DA4E59	29.1	red-orange	indianred
2		0C2B72	19.7	violet	indigo
3		071656	18.2	violet	very dark purple
4		1B0F23	9.6	red-violet	very dark purple
5		DF6476	8.5	red-orange	palevioletred
6		37283D	8.0	red-violet	very dark purple
7		5A5368	2.9	violet	dusty mauve
8		843C39	1.8	red-orange	burnt sienna
9		877C8A	1.4	red-violet	dusty mauve
10		DABBBF	0.7	red	thistle
11		563019	0.3	orange	russet [Accent]
12		95A4BD	0.3	blue-violet	steel gray [Accent]

Color Families:

Family	%
violet	40.9
red-orange	39.5
red-violet	18.9
red	0.7
orange	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
563019	orange	russet	26.6
95A4BD	blue-violet	steel gray	15.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.184
Mean Local Roughness	0.015
Roughness Uniformity	0.017
Edge Density	0.064
Mean Gradient Magnitude	0.129
Gradient Variance	0.032
Gradient Smoothness	0.0
Directional Coherence	0.038
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.629
Spatial Variation	0.147
Texture Consistency	0.607

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.288
Brightness Variance	0.184
Brightness Uniformity	0.36
Brightness Skewness	0.326
Brightness Entropy	6.702
Rms Contrast	0.184
Michelson Contrast	1.0
Weber Contrast	0.833
Mean Local Contrast	0.017
Contrast Uniformity	0.0
Dynamic Range	0.992
Effective Dynamic Range	0.471
Shadow Percentage	57.807
Midtone Percentage	41.476
Highlight Percentage	0.718
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.021
Coarse Contrast	0.034
Multiscale Contrast Ratio	0.211
Edge Contrast	0.129
Contrast Clustering	0.393

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.781
Color Clustering	0.656
Color Transition Smoothness	0.646
Transition Uniformity	0.761

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.063
Mean Saturation	0.684
Saturation Variance	0.046
Low Saturation Ratio	0.057
Medium Saturation Ratio	0.542
High Saturation Ratio	0.401
Saturation Clustering	0.999
Hue Concentration	0.512
Complementary Balance	0.0
Analogous Dominance	0.544
Temperature Bias	0.038

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 1 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0533.html

[2] Quercy, A. (2024). Ab Major 9 - Research on Harmony - Variation 1 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-9-research-on-harmony-variation-1_5zi.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)

d63de648be7fd2fd7f64d0ccdf-d08e3c5a6af091698c4ff250c89c0639f8153e

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