AQC0534

Nanopublication — Computational Image Analysis - AQC0534

by Arnaud Quercy · Ab Major 9 - Research on Harmony - Variation 2 · 2024

Claim 1: Computational Image Analysis - AQC0534

> K-means clustering analysis [3] (10 colors) performed on artwork Ab Major [1] 9 - Research on Harmony - Variation 2 (AQC0534) [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		D84E5D	28.0	red-orange	indianred
2		092B75	17.5	violet	indigo
3		110A18	16.0	violet	black
4		253875	8.8	violet	dusty mauve
5		E1697C	8.8	red	palevioletred
6		2B2331	7.4	red-violet	very dark gray
7		4A444D	6.6	red-violet	dusty mauve
8		78575B	3.4	red	dimgray
9		9895A0	2.2	violet	steel gray
10		DAC7C6	1.2	red-orange	lightgray
11		724A23	0.3	orange	russet [Accent]
12		677BA5	0.3	blue-violet	grayish purple [Accent]

Color Families:

Family	%
violet	44.6
red-orange	29.2
red-violet	14.0
red	12.2
orange	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
724A23	orange	russet	32.7
677BA5	blue-violet	grayish purple	25.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.191
Mean Local Roughness	0.025
Roughness Uniformity	0.024
Edge Density	0.116
Mean Gradient Magnitude	0.203
Gradient Variance	0.063
Gradient Smoothness	0.0
Directional Coherence	0.018
Pattern Complexity	0.123
Pattern Repetition	1.0
Detail Frequency Ratio	0.652
Spatial Variation	0.121
Texture Consistency	0.705

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.307
Brightness Variance	0.191
Brightness Uniformity	0.378
Brightness Skewness	0.264
Brightness Entropy	7.103
Rms Contrast	0.191
Michelson Contrast	1.0
Weber Contrast	0.89
Mean Local Contrast	0.027
Contrast Uniformity	0.126
Dynamic Range	1.0
Effective Dynamic Range	0.541
Shadow Percentage	55.932
Midtone Percentage	42.189
Highlight Percentage	1.879
Shadow Clipping	0.005
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.035
Coarse Contrast	0.051
Multiscale Contrast Ratio	0.248
Edge Contrast	0.203
Contrast Clustering	0.295

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.722
Color Clustering	0.678
Color Transition Smoothness	0.461
Transition Uniformity	0.545

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.026
Mean Saturation	0.598
Saturation Variance	0.056
Low Saturation Ratio	0.137
Medium Saturation Ratio	0.599
High Saturation Ratio	0.265
Saturation Clustering	0.997
Hue Concentration	0.528
Complementary Balance	0.005
Analogous Dominance	0.518
Temperature Bias	0.166

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 2 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0534.html

[2] Quercy, A. (2024). Ab Major 9 - Research on Harmony - Variation 2 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-9-research-on-harmony-variation-2_5zw.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)

1062f03b0c8883cd6c1c2ff2559b51d9280cd728ec256cf163b6e030b-b0f1211

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