AQC0642

Nanopublication — Computational Image Analysis - AQC0642

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

Claim 1: Computational Image Analysis - AQC0642

> K-means clustering analysis [3] (10 colors) performed on artwork Ab Major [1] - Research on Harmony - Variation 2 (AQC0642) [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]: 2096x3144 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		4E3C46	22.0	red-violet	dusty mauve
2		C52B1B	14.4	red-orange	firebrick
3		180B08	11.8	red-orange	black
4		AD1D0F	11.3	red-orange	brown
5		80AFC3	11.0	blue	mediumaquamarine
6		95C3D5	8.4	blue	skyblue
7		796666	7.6	red-orange	dimgray
8		E9CCB3	5.3	orange	wheat
9		D74534	4.5	red-orange	chocolate
10		978C8D	3.6	gray	gray
11		FCECD6	0.3	yellow-orange	antiquewhite [Accent]
12		EFF0E4	0.3	yellow	white [Accent]
13		C3DFE7	0.3	blue-green	powderblue [Accent]

Color Families:

Family	%
red-orange	49.7
red-violet	22.0
blue	19.4
orange	5.3
gray	3.6
yellow-orange	0.3
yellow	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
FCECD6	yellow-orange	antiquewhite	13.2
EFF0E4	yellow	white	6.3
C3DFE7	blue-green	powderblue	10.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.218
Mean Local Roughness	0.027
Roughness Uniformity	0.03
Edge Density	0.122
Mean Gradient Magnitude	0.219
Gradient Variance	0.094
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.638
Spatial Variation	0.148
Texture Consistency	0.528

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.395
Brightness Variance	0.218
Brightness Uniformity	0.448
Brightness Skewness	0.415
Brightness Entropy	7.363
Rms Contrast	0.218
Michelson Contrast	1.0
Weber Contrast	0.862
Mean Local Contrast	0.029
Contrast Uniformity	0.016
Dynamic Range	1.0
Effective Dynamic Range	0.737
Shadow Percentage	49.251
Midtone Percentage	33.789
Highlight Percentage	16.96
Shadow Clipping	0.013
Highlight Clipping	0.008
Tonal Balance	0.0
Fine Contrast	0.014
Medium Contrast	0.037
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.219
Contrast Clustering	0.472

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.774
Color Clustering	0.639
Color Transition Smoothness	0.452
Transition Uniformity	0.367
Sharp Transition Ratio	0.1
Transition Directionality	0.02
Mean Saturation	0.488
Saturation Variance	0.093
Low Saturation Ratio	0.396
Medium Saturation Ratio	0.246
High Saturation Ratio	0.358
Saturation Clustering	0.998
Hue Concentration	0.531
Complementary Balance	0.15
Analogous Dominance	0.771
Temperature Bias	0.557

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 - Research on Harmony - Variation 2 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0642.html

[2] Quercy, A. (2024). Ab Major - Research on Harmony - Variation 2 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-research-on-harmony-variation-2_75w.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)

613ae895d605abf78837473f168dc8c8e3e17b14669837d-d36805f2379c15550

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