AQC0610

Nanopublication — Computational Image Analysis - AQC0610

by Arnaud Quercy · A minor - Research on Harmony · 2024

Claim 1: Computational Image Analysis - AQC0610

> K-means clustering analysis [3] (10 colors) performed on artwork A minor - Research [1] on Harmony (AQC0610) [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]: 2544x3392 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E79858	29.1	orange	sandybrown
2		D18659	21.1	orange	peru
3		B93B3A	14.0	red-orange	brown
4		D19E7F	10.5	orange	tan
5		D4DCAB	6.8	yellow-green	palegoldenrod
6		A06F70	6.6	red-orange	gray
7		A05438	4.1	orange	burnt sienna
8		C9C720	3.9	yellow	goldenrod
9		21171B	2.3	red	black
10		BBBECA	1.8	blue-violet	silver
11		66592D	0.3	yellow-orange	dark brown [Accent]
12		625A75	0.3	violet	dusty mauve [Accent]
13		61485E	0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
orange	64.7
red-orange	20.5
yellow-green	6.8
yellow	3.9
red	2.3
blue-violet	1.8
yellow-orange	0.3
violet	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
66592D	yellow-orange	dark brown	27.0
625A75	violet	dusty mauve	16.6
61485E	red-violet	dusty mauve	17.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.149
Mean Local Roughness	0.014
Roughness Uniformity	0.025
Edge Density	0.038
Mean Gradient Magnitude	0.104
Gradient Variance	0.057
Gradient Smoothness	0.0
Directional Coherence	0.137
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.64
Spatial Variation	0.078
Texture Consistency	0.374

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.591
Brightness Variance	0.149
Brightness Uniformity	0.749
Brightness Skewness	-0.945
Brightness Entropy	6.843
Rms Contrast	0.149
Michelson Contrast	1.0
Weber Contrast	0.484
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.459
Shadow Percentage	3.051
Midtone Percentage	68.384
Highlight Percentage	28.565
Shadow Clipping	0.019
Highlight Clipping	0.003
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.019
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.104
Contrast Clustering	0.626

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.762
Color Clustering	0.348
Color Transition Smoothness	0.731
Transition Uniformity	0.617
Sharp Transition Ratio	0.1
Transition Directionality	0.138
Mean Saturation	0.55
Saturation Variance	0.029
Low Saturation Ratio	0.119
Medium Saturation Ratio	0.763
High Saturation Ratio	0.118
Saturation Clustering	0.999
Hue Concentration	0.925
Complementary Balance	0.013
Analogous Dominance	0.97
Temperature Bias	0.903

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). A minor - Research on Harmony — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0610.html

[2] Quercy, A. (2024). A minor - Research on Harmony - Gallery. https://artquamanima.com/en/artworks/2024/01/a-minor-research-on-harmony_6tg.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)

a3e32f038311553f1dee61e08e227182a0d38dd50a392ca0706a60284578-fafb

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