AQC0670

Nanopublication — Computational Image Analysis - AQC0670

by Arnaud Quercy · C minor - Research on Harmony - Variation 4 · 2024

Claim 1: Computational Image Analysis - AQC0670

> K-means clustering analysis [3] (10 colors) performed on artwork C minor - Research [1] on Harmony - Variation 4 (AQC0670) [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]: 2383x3575 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D2D5DB	23.5	white	lightgray
2		C1BDCD	13.8	violet	silver
3		C6805A	13.3	orange	peru
4		D09879	12.8	orange	darksalmon
5		D6B19C	10.5	orange	tan
6		B3633D	8.4	orange	burnt sienna
7		766B97	4.8	violet	dusty mauve
8		5A4D6C	4.8	violet	dusty mauve
9		A6A0B7	4.3	violet	steel gray
10		393138	3.9	red-violet	dusty mauve
11		AFCFF5	0.3	blue-violet	lightblue [Accent]
12		3D1D18	0.3	red-orange	very dark red [Accent]
13		94757A	0.3	red	gray [Accent]

Color Families:

Family	%
orange	44.9
violet	27.7
white	23.5
red-violet	3.9
blue-violet	0.3
red-orange	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
AFCFF5	blue-violet	lightblue	22.1
3D1D18	red-orange	very dark red	18.0
94757A	red	gray	13.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.172
Mean Local Roughness	0.022
Roughness Uniformity	0.019
Edge Density	0.122
Mean Gradient Magnitude	0.18
Gradient Variance	0.046
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.122
Pattern Repetition	1.0
Detail Frequency Ratio	0.619
Spatial Variation	0.104
Texture Consistency	0.647

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.649
Brightness Variance	0.172
Brightness Uniformity	0.735
Brightness Skewness	-0.855
Brightness Entropy	7.234
Rms Contrast	0.172
Michelson Contrast	1.0
Weber Contrast	0.519
Mean Local Contrast	0.024
Contrast Uniformity	0.171
Dynamic Range	1.0
Effective Dynamic Range	0.557
Shadow Percentage	6.233
Midtone Percentage	39.86
Highlight Percentage	53.907
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.029
Coarse Contrast	0.044
Multiscale Contrast Ratio	0.287
Edge Contrast	0.18
Contrast Clustering	0.353

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.753
Color Clustering	0.63

Metric	Value
Color Transition Smoothness	0.547
Transition Uniformity	0.69
Sharp Transition Ratio	0.1
Transition Directionality	0.018
Mean Saturation	0.28
Saturation Variance	0.046
Low Saturation Ratio	0.559
Medium Saturation Ratio	0.418
High Saturation Ratio	0.023
Saturation Clustering	1.0
Hue Concentration	0.727
Complementary Balance	0.007
Analogous Dominance	0.831
Temperature Bias	0.808

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). C minor - Research on Harmony - Variation 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0670.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-minor-research-on-harmony-variation-4_7gs.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)

86a7bc5f4ad3fdbd7ed55c44681f773490116871c7a6e951b601a53e8c0f-d700

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