AQC0766

Nanopublication — Computational Image Analysis - AQC0766

by Arnaud Quercy · A Minor - Research on Harmony - Variation 4 · 2024

Claim 1: Computational Image Analysis - AQC0766

> K-means clustering analysis [3] (10 colors) performed on artwork A Minor [1] - Research on Harmony - Variation 4 (AQC0766) [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]: 2433x3650 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		981D2B	15.2	red-orange	brown
2		A19A89	15.1	yellow	rosybrown
3		B8B1A4	13.0	yellow-orange	steel gray
4		1F1E24	12.1	violet	very dark gray
5		8F8674	12.0	yellow-orange	gray
6		C49B72	8.2	orange	ochre
7		AD822D	7.5	yellow-orange	darkgoldenrod
8		DCB494	7.3	orange	tan
9		DAD2CA	5.2	yellow-orange	lightgray
10		554035	4.4	orange	dark brown
11		160102	0.3	red	black [Accent]

Color Families:

Family	%
yellow-orange	37.7
orange	19.9
red-orange	15.2
yellow	15.1
violet	12.1
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
160102	red	black	8.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.219
Mean Local Roughness	0.013
Roughness Uniformity	0.012

Metric	Value
Edge Density	0.055
Mean Gradient Magnitude	0.144
Gradient Variance	0.036
Gradient Smoothness	0.0
Directional Coherence	0.016
Pattern Complexity	0.107
Pattern Repetition	1.0
Detail Frequency Ratio	0.569
Spatial Variation	0.126
Texture Consistency	0.56

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.503
Brightness Variance	0.219
Brightness Uniformity	0.565
Brightness Skewness	-0.491
Brightness Entropy	7.437
Rms Contrast	0.219
Michelson Contrast	1.0
Weber Contrast	0.774
Mean Local Contrast	0.017
Contrast Uniformity	0.045
Dynamic Range	1.0
Effective Dynamic Range	0.667
Shadow Percentage	29.946
Midtone Percentage	43.8
Highlight Percentage	26.254
Shadow Clipping	0.008
Highlight Clipping	0.006
Tonal Balance	0.123
Fine Contrast	0.006
Medium Contrast	0.021
Coarse Contrast	0.042
Multiscale Contrast Ratio	0.144
Edge Contrast	0.144
Contrast Clustering	0.44

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.738
Color Clustering	0.68
Color Transition Smoothness	0.627
Transition Uniformity	0.74
Sharp Transition Ratio	0.1
Transition Directionality	0.019

Metric	Value
Mean Saturation	0.36
Saturation Variance	0.077
Low Saturation Ratio	0.562
Medium Saturation Ratio	0.219
High Saturation Ratio	0.219
Saturation Clustering	0.999
Hue Concentration	0.665
Complementary Balance	0.13
Analogous Dominance	0.843
Temperature Bias	0.693

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 - Variation 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0766.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/a-minor-research-on-harmony-variation-4_8i4.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/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)

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1b3b6d268b36e1eb-
c7751ee23e1e98340716f065778e086a9daf8581d64ff5df
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Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0263
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