AQC0531

Nanopublication — Computational Image Analysis - AQC0531

by Arnaud Quercy · D Major9 - Research on Harmony - Variation 11 · 2024

Claim 1: Computational Image Analysis - AQC0531

> K-means clustering analysis [3] (10 colors) performed on artwork D Major9 - Research [1] on Harmony - Variation 11 (AQC0531) [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]: 1862x2483 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E6E5E0	20.3	white	white
2		B68D67	16.8	orange	rosybrown
3		C19E7E	12.9	orange	tan
4		A87D52	11.0	orange	peru
5		D8D6D0	10.3	white	lightgray
6		8C8A87	6.7	gray	gray
7		D2B398	6.5	orange	burlywood
8		706D6A	6.5	gray	dimgray
9		4F4B4A	5.4	gray	darkslategray
10		ACABA8	3.6	gray	steel gray
11		342927	0.3	red-orange	very dark gray [Accent]
12		826641	0.3	yellow-orange	burnt sienna [Accent]

Color Families:

Family	%
orange	47.3
white	30.6
gray	22.1
red-orange	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
342927	red-orange	very dark gray	5.8
826641	yellow-orange	burnt sienna	25.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.176
Mean Local Roughness	0.026
Roughness Uniformity	0.024
Edge Density	0.14
Mean Gradient Magnitude	0.211
Gradient Variance	0.064
Gradient Smoothness	0.0
Directional Coherence	0.014
Pattern Complexity	0.136
Pattern Repetition	1.0
Detail Frequency Ratio	0.65
Spatial Variation	0.082
Texture Consistency	0.793

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.662
Brightness Variance	0.176
Brightness Uniformity	0.735
Brightness Skewness	-0.143
Brightness Entropy	7.063
Rms Contrast	0.176
Michelson Contrast	0.984
Weber Contrast	0.504
Mean Local Contrast	0.028
Contrast Uniformity	0.107
Dynamic Range	0.992
Effective Dynamic Range	0.553
Shadow Percentage	3.864
Midtone Percentage	53.258
Highlight Percentage	42.877
Shadow Clipping	0.0
Highlight Clipping	0.003
Tonal Balance	0.0
Fine Contrast	0.014
Medium Contrast	0.035
Coarse Contrast	0.051
Multiscale Contrast Ratio	0.268
Edge Contrast	0.211
Contrast Clustering	0.207

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.728
Color Clustering	0.79
Color Transition Smoothness	0.471
Transition Uniformity	0.6
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.016
Mean Saturation	0.213
Saturation Variance	0.04
Low Saturation Ratio	0.618
Medium Saturation Ratio	0.382
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.992
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

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). D Major9 - Research on Harmony - Variation 11 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0531.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major9-research-on-harmony-variation-11_5yq.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)

`2b3f9ab65addd26d56fa33264db3250a2d8fc9e5263d888dd-fa7e6f902b6300d`

Artist	Arnaud Quercy
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