AQC0529

Nanopublication — Computational Image Analysis - AQC0529

by Arnaud Quercy · D Major9 - Research on Harmony - Variation 9 · 2024

Claim 1: Computational Image Analysis - AQC0529

> Computational image analysis [3] of artwork D Major9 - Research [1] on Harmony - Variation 9 (AQC0529) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

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]: 1760x2346 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E6E4DE	23.8	white	white
2		DDD9D2	12.5	white	gainsboro
3		D5B89C	11.0	orange	tan
4		C9A784	10.7	orange	burlywood
5		BA886D	9.2	orange	rosybrown
6		A6704F	8.9	orange	indianred
7		535152	7.7	gray	darkslategray
8		BD9752	7.3	yellow-orange	peru
9		7E7975	4.9	gray	gray
10		9C9690	3.9	gray	steel gray
11		33292B	0.3	red	very dark gray [Accent]
12		372926	0.3	red-orange	very dark gray [Accent]

Color Families:

Family	%
orange	39.8
white	36.3
gray	16.5
yellow-orange	7.3
red	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
33292B	red	very dark gray	6.0
372926	red-orange	very dark gray	6.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.181
Mean Local Roughness	0.021
Roughness Uniformity	0.02
Edge Density	0.12
Mean Gradient Magnitude	0.169
Gradient Variance	0.042
Gradient Smoothness	0.0
Directional Coherence	0.016
Pattern Complexity	0.133
Pattern Repetition	1.0
Detail Frequency Ratio	0.653
Spatial Variation	0.069
Texture Consistency	0.708

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.689
Brightness Variance	0.181
Brightness Uniformity	0.737
Brightness Skewness	-0.466
Brightness Entropy	6.994
Rms Contrast	0.181
Michelson Contrast	0.969
Weber Contrast	0.498
Mean Local Contrast	0.023
Contrast Uniformity	0.089
Dynamic Range	0.984
Effective Dynamic Range	0.561
Shadow Percentage	4.098
Midtone Percentage	40.067
Highlight Percentage	55.835
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.028
Coarse Contrast	0.039
Multiscale Contrast Ratio	0.297
Edge Contrast	0.169
Contrast Clustering	0.292

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.733
Color Clustering	0.735

Metric	Value
Color Transition Smoothness	0.58
Transition Uniformity	0.733
Sharp Transition Ratio	0.1
Transition Directionality	0.02
Mean Saturation	0.22
Saturation Variance	0.041
Low Saturation Ratio	0.66
Medium Saturation Ratio	0.339
High Saturation Ratio	0.001
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 9 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0529.html

[2] Quercy, A. (2024). D Major9 - Research on Harmony - Variation 9 - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major9-research-on-harmony-variation-9_5xy.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)

5ffb913-ab8c0d2456f08d569e6aa9d2807f2e936f2286becb0ce10836d812c82

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