AQC0727

Nanopublication — Computational Image Analysis - AQC0727

by Arnaud Quercy · D Major - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0727

> Analysis record [3]: D Major [1] - Research on Harmony - Variation 5 (AQC0727) [2] by Arnaud Quercy [2]. Method: k-means. Parameters: 10 colors. Metrics: color distribution, texture, brightness, spatial patterns. Completed: 2025-12-04.

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]: 3024x4032 pixels. Analysis date: 2025-12-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		CA923F	17.4	yellow-orange	peru
2		DCB885	13.0	yellow-orange	burlywood
3		E47F17	11.6	orange	chocolate
4		EC942F	10.7	orange	goldenrod
5		E5A361	10.3	orange	sandybrown
6		232022	10.0	gray	very dark gray
7		B9B3AC	7.7	gray	steel gray
8		3A3D39	7.4	gray	darkslategray
9		73A294	6.6	green	cadetblue
10		4A5C54	5.2	green	darkslategrey
11		4F1306	0.3	red-orange	very dark red [Accent]
12		8BADB9	0.3	blue	steel gray [Accent]
13		A49767	0.3	yellow	ochre [Accent]
14		6C753E	0.3	yellow-green	dark brown [Accent]
15		8CACB5	0.3	blue-green	steel gray [Accent]

Color Families:

Family	%
orange	32.7
yellow-orange	30.3
gray	25.1
green	11.9
red-orange	0.3
blue	0.3
yellow	0.3
yellow-green	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
4F1306	red-orange	very dark red	34.8
8BADB9	blue	steel gray	13.5
A49767	yellow	ochre	27.2
6C753E	yellow-green	dark brown	31.8
8CACB5	blue-green	steel gray	12.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.197
Mean Local Roughness	0.019
Roughness Uniformity	0.021
Edge Density	0.062
Mean Gradient Magnitude	0.142
Gradient Variance	0.049
Gradient Smoothness	0.0
Directional Coherence	0.012
Pattern Complexity	0.124
Pattern Repetition	1.0
Detail Frequency Ratio	0.646
Spatial Variation	0.153
Texture Consistency	0.55

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.549
Brightness Variance	0.197
Brightness Uniformity	0.641
Brightness Skewness	-1.091
Brightness Entropy	6.95
Rms Contrast	0.197
Michelson Contrast	1.0
Weber Contrast	0.758
Mean Local Contrast	0.02
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.624
Shadow Percentage	20.199
Midtone Percentage	49.097
Highlight Percentage	30.704
Shadow Clipping	0.002
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.29

Metric	Value
Edge Contrast	0.142
Contrast Clustering	0.45

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.743
Color Clustering	0.576
Color Transition Smoothness	0.633
Transition Uniformity	0.662
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.493
Saturation Variance	0.082
Low Saturation Ratio	0.298
Medium Saturation Ratio	0.402
High Saturation Ratio	0.3
Saturation Clustering	0.999
Hue Concentration	0.776
Complementary Balance	0.04
Analogous Dominance	0.862
Temperature Bias	0.725

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 Major - Research on Harmony - Variation 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0727.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major-research-on-harmony-variation-5_82y.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)

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