AQC0888

Nanopublication — Computational Image Analysis - AQC0888

by Arnaud Quercy · A Major - Research on Harmony - Variations 8 · 2025

Claim 1: Computational Image Analysis - AQC0888

> K-means clustering analysis [3] (10 colors) performed on artwork A Major [1] - Research on Harmony - Variations 8 (AQC0888) [2] by Arnaud Quercy [2] on 2025-12-11. 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]: 1869x2804 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E2C487	24.6	yellow-orange	burlywood
2		F0D297	15.0	yellow-orange	khaki
3		D4B678	13.9	yellow-orange	tan
4		5CD2D2	12.3	blue-green	mediumturquoise
5		3087D0	10.5	blue-violet	steelblue
6		E2DCBF	7.5	yellow	wheat
7		E5EAE3	5.0	white	white
8		F0DE41	5.0	yellow	sandybrown
9		4F5652	3.2	gray	darkslategray
10		252924	3.1	gray	very dark gray
11		7CA2B8	0.3	blue	cadetblue [Accent]
12		89DCD9	0.3	green	skyblue [Accent]
13		97CEB5	0.3	yellow-green	darkseagreen [Accent]

Color Families:

Family	%
yellow-orange	53.5
yellow	12.5
blue-green	12.3
blue-violet	10.5
gray	6.3
white	5.0
blue	0.3
green	0.3
yellow-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
7CA2B8	blue	cadetblue	17.9
89DCD9	green	skyblue	26.7
97CEB5	yellow-green	darkseagreen	24.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.173
Mean Local Roughness	0.028
Roughness Uniformity	0.024
Edge Density	0.176
Mean Gradient Magnitude	0.219
Gradient Variance	0.071
Gradient Smoothness	0.0
Directional Coherence	0.004
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.639
Spatial Variation	0.05
Texture Consistency	0.719

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.717
Brightness Variance	0.173
Brightness Uniformity	0.759
Brightness Skewness	-1.641
Brightness Entropy	6.95
Rms Contrast	0.173
Michelson Contrast	1.0
Weber Contrast	0.484
Mean Local Contrast	0.03
Contrast Uniformity	0.201
Dynamic Range	1.0
Effective Dynamic Range	0.565
Shadow Percentage	5.057
Midtone Percentage	16.098
Highlight Percentage	78.845
Shadow Clipping	0.004
Highlight Clipping	0.007
Tonal Balance	0.0
Fine Contrast	0.015
Medium Contrast	0.037
Coarse Contrast	0.052
Multiscale Contrast Ratio	0.293
Edge Contrast	0.219
Contrast Clustering	0.281

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.73
Color Clustering	0.378
Color Transition Smoothness	0.463
Transition Uniformity	0.523
Sharp Transition Ratio	0.1
Transition Directionality	0.005
Mean Saturation	0.429
Saturation Variance	0.041
Low Saturation Ratio	0.18
Medium Saturation Ratio	0.679
High Saturation Ratio	0.141
Saturation Clustering	0.999
Hue Concentration	0.49
Complementary Balance	0.014
Analogous Dominance	0.716
Temperature Bias	0.428

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 (2025). A Major - Research on Harmony - Variations 8 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0888.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/a-major-research-on-harmony-variations-8_i60.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)

1fb3f542051a07d7a0adb1ad0569e0f4cab63f326920484d082076cd-d64e25fc

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