AQC0616

Nanopublication — Computational Image Analysis - AQC0616

by Arnaud Quercy · G7b9 - Research on Harmony · 2024

Claim 1: Computational Image Analysis - AQC0616

> Computational image analysis [3] of artwork G7b9 - Research [1] on Harmony (AQC0616) [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]: 1499x1999 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D7B380	21.7	yellow-orange	burlywood
2		DDC092	16.9	yellow-orange	tan
3		D3A36C	15.0	orange	darksalmon
4		C69458	12.4	orange	peru
5		BE8141	10.0	orange	chocolate
6		A7A18B	8.0	yellow	rosybrown
7		A47332	7.3	orange	burnt sienna
8		8C8069	3.2	yellow-orange	gray
9		2E1C10	3.1	orange	very dark gray
10		5B4834	2.4	orange	dark brown
11		4C5F5F	0.3	blue-green	dimgray [Accent]

Color Families:

Family	%
orange	50.3
yellow-orange	41.7
yellow	8.0
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
4C5F5F	blue-green	dimgray	7.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.14
Mean Local Roughness	0.015
Roughness Uniformity	0.024
Edge Density	0.029
Mean Gradient Magnitude	0.13
Gradient Variance	0.084
Gradient Smoothness	0.0
Directional Coherence	0.076
Pattern Complexity	0.125
Pattern Repetition	1.0
Detail Frequency Ratio	0.591
Spatial Variation	0.061
Texture Consistency	0.811

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.632
Brightness Variance	0.14
Brightness Uniformity	0.778
Brightness Skewness	-1.838
Brightness Entropy	6.755
Rms Contrast	0.14
Michelson Contrast	1.0
Weber Contrast	0.366
Mean Local Contrast	0.018
Contrast Uniformity	0.0
Dynamic Range	0.941
Effective Dynamic Range	0.431
Shadow Percentage	4.806
Midtone Percentage	45.585
Highlight Percentage	49.609
Shadow Clipping	0.002
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.022
Coarse Contrast	0.043
Multiscale Contrast Ratio	0.174
Edge Contrast	0.13
Contrast Clustering	0.189

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.7
Color Clustering	0.485
Color Transition Smoothness	0.65
Transition Uniformity	0.401
Sharp Transition Ratio	0.1
Transition Directionality	0.076
Mean Saturation	0.455

Metric	Value
Saturation Variance	0.028
Low Saturation Ratio	0.121
Medium Saturation Ratio	0.799
High Saturation Ratio	0.08
Saturation Clustering	0.999
Hue Concentration	0.993
Complementary Balance	0.001
Analogous Dominance	0.998
Temperature Bias	0.997

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). G7b9 - Research on Harmony — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0616.html

[2] Quercy, A. (2024). G7b9 - Research on Harmony - Gallery. https://artquamanima.com/en/artworks/2024/01/g7b9-research-on-harmony_6vs.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)

c569769113e92cff6009-ab66679d5a68c68109c991905fc82f6af29c377875a3

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