AQC0953

Nanopublication — Computational Image Analysis - AQC0953

by Arnaud Quercy · F7 - Research on Harmony · 2026

Claim 1: Computational Image Analysis - AQC0953

> K-means clustering analysis [3] (10 colors) performed on artwork F7 - Research [1] on Harmony (AQC0953) [2] by Arnaud Quercy [2] on 2026-03-04. 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]: 1943x2915 pixels. Analysis date: 2026-03-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		B7BCBF	17.3	gray	silver
2		A17184	14.0	red	dusty mauve
3		D07EB2	12.5	red-violet	palevioletred
4		D2CDCB	12.1	white	lightgray
5		1B191C	9.7	gray	black
6		EAE6DB	8.9	yellow-orange	white
7		A1A4A8	8.7	gray	steel gray
8		6F596E	7.2	red-violet	dusty mauve
9		9A3D57	5.4	red	burnt sienna
10		353034	4.2	gray	dusty mauve
11		CEC39D	0.3	yellow	tan [Accent]
12		6F7793	0.3	blue-violet	grayish purple [Accent]

Color Families:

Family	%
gray	39.9
red-violet	19.7
red	19.4
white	12.1
yellow-orange	8.9
yellow	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
CEC39D	yellow	tan	20.1
6F7793	blue-violet	grayish purple	16.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.237
Mean Local Roughness	0.033
Roughness Uniformity	0.023
Edge Density	0.207
Mean Gradient Magnitude	0.259
Gradient Variance	0.07
Gradient Smoothness	0.0
Directional Coherence	0.004
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.657
Spatial Variation	0.101
Texture Consistency	0.617

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.576
Brightness Variance	0.237
Brightness Uniformity	0.589
Brightness Skewness	-0.614
Brightness Entropy	7.697
Rms Contrast	0.237
Michelson Contrast	1.0
Weber Contrast	0.816
Mean Local Contrast	0.036
Contrast Uniformity	0.329
Dynamic Range	1.0
Effective Dynamic Range	0.792
Shadow Percentage	15.992
Midtone Percentage	41.026
Highlight Percentage	42.982
Shadow Clipping	0.001
Highlight Clipping	0.001
Tonal Balance	0.394
Fine Contrast	0.018
Medium Contrast	0.044
Coarse Contrast	0.056
Multiscale Contrast Ratio	0.322
Edge Contrast	0.259
Contrast Clustering	0.383

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.722
Color Clustering	0.856

Metric	Value
Color Transition Smoothness	0.35
Transition Uniformity	0.551
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.191
Saturation Variance	0.028
Low Saturation Ratio	0.745
Medium Saturation Ratio	0.252
High Saturation Ratio	0.002
Saturation Clustering	0.999
Hue Concentration	0.909
Complementary Balance	0.003
Analogous Dominance	0.884
Temperature Bias	0.895

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 (2026). F7 - Research on Harmony — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0953.html

[2] Quercy, A. (2026). A5 (Power Chord) - Research on Harmony - Gallery. https://artquamanima.com/en/artworks/2026/03/f7-research-on-harmony_1yhu.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)

a27c88f019dc2e180150fa756c766aea55b97b2e9aae4ff4b8e540c2264cb-b67

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