AQC0681

Nanopublication — Computational Image Analysis - AQC0681

by Arnaud Quercy · F# Octaves - Reflexions 15 · 2024

Claim 1: Computational Image Analysis - AQC0681

> K-means clustering analysis [3] (10 colors) performed on artwork F# Octaves [1] - Reflexions 15 (AQC0681) [2] by Arnaud Quercy [2] on 2026-02-04. 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]: 2366x3549 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C5C7C2	23.8	white	silver
2		CFD1D1	22.2	white	lightgray
3		B9BBB0	19.8	yellow-green	steel gray
4		AAB19F	10.9	yellow-green	steel gray
5		93A286	5.7	yellow-green	darkseagreen
6		4C898A	5.3	blue-green	cadetblue
7		6E9E9B	4.2	green	lightslategray
8		2B7074	3.4	blue-green	seagreen
9		73886D	3.3	yellow-green	gray
10		293132	1.5	gray	darkslategray
11		5D4C45	0.3	orange	dark brown [Accent]
12		C0AA79	0.3	yellow-orange	ochre [Accent]

Color Families:

Family	%
white	46.0
yellow-green	39.6
blue-green	8.7
green	4.2
gray	1.5
orange	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
5D4C45	orange	dark brown	9.2
C0AA79	yellow-orange	ochre	28.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.137
Mean Local Roughness	0.01
Roughness Uniformity	0.015
Edge Density	0.029
Mean Gradient Magnitude	0.083
Gradient Variance	0.028
Gradient Smoothness	0.0
Directional Coherence	0.087
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.606
Spatial Variation	0.089
Texture Consistency	0.543

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.7
Brightness Variance	0.137
Brightness Uniformity	0.805
Brightness Skewness	-1.649
Brightness Entropy	6.632
Rms Contrast	0.137
Michelson Contrast	1.0
Weber Contrast	0.397
Mean Local Contrast	0.011
Contrast Uniformity	0.0
Dynamic Range	0.969
Effective Dynamic Range	0.416
Shadow Percentage	2.272
Midtone Percentage	23.552
Highlight Percentage	74.176
Shadow Clipping	0.003
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.013
Coarse Contrast	0.023
Multiscale Contrast Ratio	0.24
Edge Contrast	0.083
Contrast Clustering	0.457

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.726
Color Clustering	0.707

Metric	Value
Color Transition Smoothness	0.787
Transition Uniformity	0.808
Sharp Transition Ratio	0.1
Transition Directionality	0.103
Mean Saturation	0.124
Saturation Variance	0.023
Low Saturation Ratio	0.893
Medium Saturation Ratio	0.097
High Saturation Ratio	0.01
Saturation Clustering	1.0
Hue Concentration	0.805
Complementary Balance	0.006
Analogous Dominance	0.816
Temperature Bias	-0.774

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). F# Octaves - Reflexions 15 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0681.html

[2] Quercy, A. (2024). F# Octaves - Reflexions 15 - Gallery. https://artquamanima.com/en/artworks/2024/01/f-octaves-reflexions-15_7l2.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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