

Nanopublication — Computational Image Analysis - AQC0926

by Arnaud Quercy · G Octaves - Research on Harmony - Reflections 40 · 2025



Claim 1: Computational Image Analysis - AQC0926

K-means clustering analysis [3] (10 colors) performed on artwork G Octaves [1] - Research on Harmony - Reflections 40 (AQC0926) [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		DB9E6A	16.1	orange	darksalmon
2		E77D12	15.1	orange	chocolate
3		D0BDA3	14.5	yellow-orange	tan
4		242122	12.2	gray	very dark gray
5		C1AE91	12.0	yellow-orange	rosybrown
6		EBB382	9.8	orange	burlywood
7		E2D5C0	8.3	yellow-orange	lightgray
8		F09332	7.0	orange	goldenrod
9		DD6137	4.1	orange	tomato
10		6A5040	1.1	orange	dark brown
11		652112	0.3	red-orange	maroon [Accent]

Color Families:

Family	%
orange	53.1

Family	%
yellow-orange	34.7
gray	12.2
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
652112	red-orange	maroon	39.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.202
Mean Local Roughness	0.024
Roughness Uniformity	0.019
Edge Density	0.114
Mean Gradient Magnitude	0.19
Gradient Variance	0.051
Gradient Smoothness	0.0
Directional Coherence	0.002
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.642
Spatial Variation	0.127
Texture Consistency	0.521

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.615
Brightness Variance	0.202
Brightness Uniformity	0.672
Brightness Skewness	-1.467
Brightness Entropy	6.991
Rms Contrast	0.202
Michelson Contrast	0.992
Weber Contrast	0.783
Mean Local Contrast	0.027
Contrast Uniformity	0.193
Dynamic Range	0.988
Effective Dynamic Range	0.71
Shadow Percentage	12.756
Midtone Percentage	32.711
Highlight Percentage	54.533
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.032
Coarse Contrast	0.043

Metric	Value
Multiscale Contrast Ratio	0.294
Edge Contrast	0.19
Contrast Clustering	0.479

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.751
Color Clustering	0.392
Color Transition Smoothness	0.525
Transition Uniformity	0.659
Sharp Transition Ratio	0.1
Transition Directionality	0.003
Mean Saturation	0.445
Saturation Variance	0.083
Low Saturation Ratio	0.448
Medium Saturation Ratio	0.296
High Saturation Ratio	0.256
Saturation Clustering	0.999
Hue Concentration	0.991
Complementary Balance	0.002
Analogous Dominance	0.997
Temperature Bias	0.996

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). G Octaves - Research on Harmony - Reflections 40 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0926.html>
<https://arnaudquercy.art/fr/catalogue-raisonne/AQC0926.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/g-octaves-research-on-harmony-reflections-40_ijd.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)

f384beeeb73c982b093349ec1ea8aabaaffe1d79e1d16ae882f2c-fa3e8320754

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