Nanopublication — Computational Image Analysis - AQC0925

by Arnaud Quercy · Db Octaves - Research on Harmony - Reflections 39 · 2025

Claim 1: Computational Image Analysis - AQC0925

> The artwork Db Octaves [1] - Research on Harmony - Reflections 39 (AQC0925) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2026-03-04. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

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]: 1944x2915 pixels. Analysis date: 2026-03-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D6D6CC	16.5	yellow-green	lightgray
2		1D7AAE	14.4	blue-violet	grayish purple
3		0D4A81	10.8	blue-violet	grayish purple
4		2F8CBF	10.4	blue	grayish purple
5		9D9FAB	9.9	violet	steel gray
6		57C5CD	9.7	blue-green	mediumturquoise
7		C1C2BD	8.0	gray	silver
8		25303B	7.7	blue-violet	very dark gray
9		EAE9E1	6.7	white	white
10		75DBE0	5.9	blue-green	skyblue
11		5F7875	0.3	green	dimgray [Accent]

Color Families:

Family	%
blue-violet	32.9
yellow-green	16.5
blue-green	15.6
blue	10.4
violet	9.9
gray	8.0
white	6.7
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
5F7875	green	dimgray	10.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.235
Mean Local Roughness	0.03
Roughness Uniformity	0.021
Edge Density	0.185
Mean Gradient Magnitude	0.231
Gradient Variance	0.057
Gradient Smoothness	0.0
Directional Coherence	0.006
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.647
Spatial Variation	0.134
Texture Consistency	0.689

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.575
Brightness Variance	0.235
Brightness Uniformity	0.591
Brightness Skewness	-0.26
Brightness Entropy	7.596
Rms Contrast	0.235
Michelson Contrast	0.992
Weber Contrast	0.74
Mean Local Contrast	0.032
Contrast Uniformity	0.319
Dynamic Range	0.996
Effective Dynamic Range	0.702
Shadow Percentage	18.362
Midtone Percentage	39.084
Highlight Percentage	42.554
Shadow Clipping	0.0

Metric	Value
Highlight Clipping	0.002
Tonal Balance	0.282
Fine Contrast	0.016
Medium Contrast	0.039
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.33
Edge Contrast	0.231
Contrast Clustering	0.311

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.751
Color Clustering	0.668
Color Transition Smoothness	0.427
Transition Uniformity	0.624
Sharp Transition Ratio	0.1
Transition Directionality	0.007
Mean Saturation	0.438
Saturation Variance	0.119
Low Saturation Ratio	0.432
Medium Saturation Ratio	0.222
High Saturation Ratio	0.346
Saturation Clustering	0.999
Hue Concentration	0.983
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	-0.999

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). Db Octaves - Research on Harmony - Reflections 39 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0925.html https://arnaudquercy.art/fr/catalogue-raisonne/AQC0925.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/db-octaves-research-on-harmony-reflections-39_ij0.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)

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e604068b426d3505aab9bb1c0bff-
b78aaed7c1fc9ba2937ec1f1c7c027929806
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Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20251123-0101
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