AQC0723

Nanopublication — Computational Image Analysis - AQC0723

by Arnaud Quercy · Db Major - Research on Harmony - Variation 6 · 2024

Claim 1: Computational Image Analysis - AQC0723

> Computational image analysis [3] of artwork Db Major [1] - Research on Harmony - Variation 6 (AQC0723) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		AFBFB5	21.8	yellow-green	silver
2		C0CEC6	18.2	yellow-green	lightgray
3		ED355A	12.6	red-orange	crimson
4		3B0F17	11.8	red	very dark red
5		8C2F46	9.2	red	brown
6		532829	8.9	red-orange	darkslategray
7		6D4243	6.2	red-orange	dark brown
8		95525D	5.4	red	burnt sienna
9		647295	4.0	blue-violet	grayish purple
10		98938F	1.9	gray	gray
11		F5A580	0.3	orange	lightsalmon [Accent]
12		320941	0.3	red-violet	very dark purple [Accent]
13		41314E	0.3	violet	dusty mauve [Accent]

Color Families:

Family	%
yellow-green	39.9
red-orange	27.7
red	26.5
blue-violet	4.0
gray	1.9
orange	0.3
red-violet	0.3
violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
F5A580	orange	lightsalmon	40.5
320941	red-violet	very dark purple	38.3
41314E	violet	dusty mauve	20.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.244
Mean Local Roughness	0.02
Roughness Uniformity	0.019
Edge Density	0.104
Mean Gradient Magnitude	0.162
Gradient Variance	0.038
Gradient Smoothness	0.0
Directional Coherence	0.024
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.639
Spatial Variation	0.218
Texture Consistency	0.497

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.489
Brightness Variance	0.244
Brightness Uniformity	0.501
Brightness Skewness	-0.082
Brightness Entropy	7.322
Rms Contrast	0.244
Michelson Contrast	1.0
Weber Contrast	0.814
Mean Local Contrast	0.022
Contrast Uniformity	0.103
Dynamic Range	1.0
Effective Dynamic Range	0.69
Shadow Percentage	32.156
Midtone Percentage	28.24
Highlight Percentage	39.604
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.013
Fine Contrast	0.011
Medium Contrast	0.027
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.162
Contrast Clustering	0.503

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.768
Color Clustering	0.715
Color Transition Smoothness	0.591
Transition Uniformity	0.742
Sharp Transition Ratio	0.1
Transition Directionality	0.032
Mean Saturation	0.397
Saturation Variance	0.087
Low Saturation Ratio	0.428
Medium Saturation Ratio	0.343
High Saturation Ratio	0.23
Saturation Clustering	0.999
Hue Concentration	0.875
Complementary Balance	0.001
Analogous Dominance	0.925
Temperature Bias	0.87

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). Db Major - Research on Harmony - Variation 6 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0723.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/db-major-research-on-harmony-variation-6_81e.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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