

Nanopublication — Computational Image Analysis - AQC0725

by Arnaud Quercy · Db Major - Research on Harmony - Variation 8 · 2024












Claim 1: Computational Image Analysis - AQC0725

Computational image analysis [3] of artwork Db Major [1] - Research on Harmony - Variation 8 (AQC0725) [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		D43832	21.2 red-orange	crimson
2		999A9A	16.6 gray	steel gray
3		EC534D	14.6 red-orange	tomato
4		4D200D	11.4 orange	very dark orange
5		929B66	11.1 yellow-green	gray
6		5F3023	10.6 red-orange	russet
7		AAAE75	5.7 yellow-green	ochre
8		804E35	4.6 orange	burnt sienna
9		737A76	3.6 gray	gray
10		EFA458	0.7 orange	sandybrown
11		1E1500	0.3 yellow-orange	very dark gray [Accent]

Color Families:

Family	%
red-orange	46.3
gray	20.1
yellow-green	16.8
orange	16.7
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
1E1500	yellow-orange	very dark gray	11.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.156
Mean Local Roughness	0.012

Metric	Value
Roughness Uniformity	0.012
Edge Density	0.041
Mean Gradient Magnitude	0.107
Gradient Variance	0.018
Gradient Smoothness	0.0
Directional Coherence	0.03
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.626
Spatial Variation	0.125
Texture Consistency	0.361

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.444
Brightness Variance	0.156
Brightness Uniformity	0.648
Brightness Skewness	-0.404
Brightness Entropy	7.066
Rms Contrast	0.156
Michelson Contrast	1.0
Weber Contrast	0.688
Mean Local Contrast	0.014
Contrast Uniformity	0.042
Dynamic Range	1.0
Effective Dynamic Range	0.482
Shadow Percentage	24.057
Midtone Percentage	72.708
Highlight Percentage	3.236
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.017
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.107
Contrast Clustering	0.639

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.815
Color Clustering	0.509
Color Transition Smoothness	0.73
Transition Uniformity	0.876
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.044
Mean Saturation	0.524
Saturation Variance	0.081
Low Saturation Ratio	0.209
Medium Saturation Ratio	0.418
High Saturation Ratio	0.373
Saturation Clustering	0.999
Hue Concentration	0.896
Complementary Balance	0.0
Analogous Dominance	0.984
Temperature Bias	0.801

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 8 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0725.html>

- [2] Quercy, A. (2024). Db Major - Research on Harmony - Variation 8 - Gallery. https://artquamanima.com/en/artworks/2024/01/db-major-research-on-harmony-variation-8_826.html

- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

51ec81efc83cad675f1f328be72e7c8c857e3352b41bd1d59de1d2a2494b-b92a

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