

Nanopublication — Computational Image Analysis - AQC0724

by Arnaud Quercy · Db Major - Research on Harmony - Variation 7 · 2024

Claim 1: Computational Image Analysis - AQC0724

Computational image analysis [3] of artwork Db Major [1] - Research on Harmony - Variation 7 (AQC0724) [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]: 2952x3936 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	624455	15.0	red-violet	dusty mauve
2	9FB4AC	14.9	green	steel gray
3	E83E5A	13.3	red-orange	indianred
4	371011	12.3	red-orange	very dark red
5	7E303F	10.4	red	brown
6	934553	10.1	red	burnt sienna
7	F55B72	9.8	red-orange	salmon
8	B1C2BB	8.0	yellow-green	silver
9	82989C	3.4	blue-green	lightslategray
10	675D87	2.7	violet	dusty mauve
11	F4AC7D	0.3	orange	lightsalmon [Accent]

Color Families:

Family	%
red-orange	35.5
red	20.5
red-violet	15.0
green	14.9
yellow-green	8.0
blue-green	3.4
violet	2.7
orange	0.3

Accent Colors:

Hex	Family Name	Chroma
F4AC7D	orange	lightsalmon 40.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.194
Mean Local Roughness	0.018
Roughness Uniformity	0.016
Edge Density	0.094
Mean Gradient Magnitude	0.148
Gradient Variance	0.033
Gradient Smoothness	0.0
Directional Coherence	0.015
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.632
Spatial Variation	0.151
Texture Consistency	0.434

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.434
Brightness Variance	0.194
Brightness Uniformity	0.553
Brightness Skewness	0.003
Brightness Entropy	7.285
Rms Contrast	0.194
Michelson Contrast	1.0
Weber Contrast	0.799
Mean Local Contrast	0.02
Contrast Uniformity	0.107
Dynamic Range	1.0
Effective Dynamic Range	0.627
Shadow Percentage	34.66
Midtone Percentage	45.662
Highlight Percentage	19.678
Shadow Clipping	0.008
Highlight Clipping	0.0
Tonal Balance	0.034
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.284
Edge Contrast	0.148
Contrast Clustering	0.566

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.788
Color Clustering	0.578

Metric	Value
Color Transition Smoothness	0.636
Transition Uniformity	0.79
Sharp Transition Ratio	0.1
Transition Directionality	0.022
Mean Saturation	0.461
Saturation Variance	0.064
Low Saturation Ratio	0.333
Medium Saturation Ratio	0.469
High Saturation Ratio	0.198
Saturation Clustering	0.999
Hue Concentration	0.89
Complementary Balance	0.013
Analogous Dominance	0.934
Temperature Bias	0.914

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 7 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0724.html>
- [2] Quercy, A. (2024). Db Major - Research on Harmony - Variation 7 - Gallery. https://artquamanima.com/en/artworks/2024/01/db-major-research-on-harmony-variation-7_81s.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)

ab7996958fd9c655a60df3d9c1804f2b075d21b93e483ff25b-fa1185ad964357

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