

Nanopublication – Computational Image Analysis –
AQC0653

by Arnaud Quercy · D Major – Research on Harmony – Variation 2 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0653

Computational image analysis [3] of artwork D Major [1] – Research on Harmony – Variation 2 (AQC0653) [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]: 2697x3596 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D5C9B4	16.1	yellow-orange	silver
2		D59B3B	13.3	yellow-orange	peru
3		423F3A	12.4	gray	darkslategray
4		E9AA51	12.0	yellow-orange	sandybrown
5		E7DECD	10.1	yellow-orange	gainsboro
6		607366	9.6	yellow-green	dimgray
7		1A1617	8.7	black	black
8		C6B193	8.1	yellow-orange	tan
9		889286	6.8	yellow-green	gray
10		A3771D	2.9	yellow-orange	darkgoldenrod
11		51320D	0.3	orange	russet [Accent]
12		8E855A	0.3	yellow	gray [Accent]
13		B2B5C1	0.3	blue-violet	silver [Accent]

Color Families:

Family	%
yellow-orange	62.5
yellow-green	16.4
gray	12.4
black	8.7
orange	0.3
yellow	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
51320D	orange	russet	29.7
8E855A	yellow	gray	24.2
B2B5C1	blue-violet	silver	6.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.241
Mean Local Roughness	0.023
Roughness Uniformity	0.02
Edge Density	0.123
Mean Gradient Magnitude	0.203
Gradient Variance	0.061
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.107
Pattern Repetition	1.0
Detail Frequency Ratio	0.612
Spatial Variation	0.125
Texture Consistency	0.645

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.575
Brightness Variance	0.241
Brightness Uniformity	0.58
Brightness Skewness	-0.689
Brightness Entropy	7.644
Rms Contrast	0.241
Michelson Contrast	1.0
Weber Contrast	0.78
Mean Local Contrast	0.027
Contrast Uniformity	0.193
Dynamic Range	1.0
Effective Dynamic Range	0.765
Shadow Percentage	20.885
Midtone Percentage	32.544
Highlight Percentage	46.571
Shadow Clipping	0.048
Highlight Clipping	0.014
Tonal Balance	0.278
Fine Contrast	0.012
Medium Contrast	0.033
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.203
Contrast Clustering	0.355

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.718
Color Clustering	0.757
Color Transition Smoothness	0.479
Transition Uniformity	0.564
Sharp Transition Ratio	0.1
Transition Directionality	0.021
Mean Saturation	0.348
Saturation Variance	0.069
Low Saturation Ratio	0.575
Medium Saturation Ratio	0.28
High Saturation Ratio	0.146
Saturation Clustering	0.998
Hue Concentration	0.788
Complementary Balance	0.068
Analogous Dominance	0.877
Temperature Bias	0.78

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). D Major - Research on Harmony - Variation 2 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0653.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major-research-on-harmony-variation-2_7a6.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>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping

D Major triad

synesthetic art

sound color correspondence

geometric abstraction

acrylic painting

harmonic visualization

musical translation

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

0f5121d35184e4b3ce7989a90ca5b27cfabc14d6cc7f80a2b2fde32303e1e7f8

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