

Nanopublication – Computational Image Analysis –
AQC0699

by Arnaud Quercy · D Major – Research on Harmony – Variation 4 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0699

Computational image analysis [3] of artwork D Major [1] – Research on Harmony – Variation 4 (AQC0699) [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]: 2590x2590 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		CD881C	30.8	orange	darkgoldenrod
2		211C17	14.6	orange	very dark gray
3		B49364	10.9	yellow-orange	ochre
4		DE8A57	9.0	orange	peru
5		AC6C2C	8.1	orange	burnt sienna
6		9C5823	7.6	orange	burnt sienna
7		4E3D2A	6.7	orange	dark brown
8		D4B277	5.3	yellow-orange	burlywood
9		6E5244	4.9	orange	dark brown
10		4C6D33	2.0	yellow-green	dark brown
11		62600B	0.3	yellow	dark brown [Accent]

Color Families:

Family	%
orange	81.7
yellow-orange	16.2
yellow-green	2.0
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
62600B	yellow	dark brown	43.9

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.182
Mean Local Roughness	0.007
Roughness Uniformity	0.016
Edge Density	0.007
Mean Gradient Magnitude	0.049
Gradient Variance	0.021
Gradient Smoothness	0.0
Directional Coherence	0.209
Pattern Complexity	0.109
Pattern Repetition	1.0
Detail Frequency Ratio	0.631
Spatial Variation	0.136
Texture Consistency	0.361

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.462
Brightness Variance	0.182
Brightness Uniformity	0.606
Brightness Skewness	-0.808
Brightness Entropy	6.726
Rms Contrast	0.182
Michelson Contrast	1.0
Weber Contrast	0.805
Mean Local Contrast	0.007
Contrast Uniformity	0.0
Dynamic Range	0.969
Effective Dynamic Range	0.573
Shadow Percentage	22.341
Midtone Percentage	71.885
Highlight Percentage	5.775
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.004
Medium Contrast	0.009
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.049
Contrast Clustering	0.639

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.746
Color Clustering	0.579
Color Transition Smoothness	0.863
Transition Uniformity	0.854
Sharp Transition Ratio	0.1
Transition Directionality	0.221
Mean Saturation	0.61
Saturation Variance	0.054
Low Saturation Ratio	0.092
Medium Saturation Ratio	0.459
High Saturation Ratio	0.449
Saturation Clustering	0.999
Hue Concentration	0.972
Complementary Balance	0.0
Analogous Dominance	0.978
Temperature Bias	0.957

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 4 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0699.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major-research-on-harmony-variation-4_7s2.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 exploration

harmonic color theory

orange tones

darkgoldenrod

musical visualization

acrylic canvas

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

fcc5bf5a109d1a01268a34f6670d13e43683957896c47161c76178678c4d6b84

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