

Nanopublication – Computational Image Analysis –
AQC0626

by Arnaud Quercy · D minor – Research on Harmony · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0626

Computational image analysis [3] of artwork D minor – Research [1] on Harmony (AQC0626) [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]: 2333x3499 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		352136	22.4	red-violet	very dark purple
2		E8AA37	17.1	yellow-orange	goldenrod
3		E66020	14.6	orange	chocolate
4		48384E	13.4	red-violet	dusty mauve
5		EEB750	11.1	yellow-orange	sandybrown
6		EE6F3E	11.0	orange	tomato
7		100505	3.8	black	black
8		776979	3.3	red-violet	dusty mauve
9		A0471A	2.8	orange	burnt sienna
10		C7BAC8	0.5	red-violet	silver
11		530B02	0.3	red-orange	very dark red [Accent]

Color Families:

Family	%
red-violet	39.5
orange	28.5
yellow-orange	28.2
black	3.8
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
530B02	red-orange	very dark red	39.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.23
Mean Local Roughness	0.019
Roughness Uniformity	0.027
Edge Density	0.062
Mean Gradient Magnitude	0.16
Gradient Variance	0.07
Gradient Smoothness	0.0
Directional Coherence	0.026
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.637
Spatial Variation	0.2
Texture Consistency	0.544

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.437
Brightness Variance	0.23
Brightness Uniformity	0.473
Brightness Skewness	-0.122
Brightness Entropy	7.223
Rms Contrast	0.23
Michelson Contrast	1.0
Weber Contrast	0.788
Mean Local Contrast	0.021
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.612
Shadow Percentage	40.089
Midtone Percentage	33.717
Highlight Percentage	26.195
Shadow Clipping	0.009
Highlight Clipping	0.005
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.027
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.16
Contrast Clustering	0.456

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.779
Color Clustering	0.477
Color Transition Smoothness	0.571
Transition Uniformity	0.507
Sharp Transition Ratio	0.1
Transition Directionality	0.03
Mean Saturation	0.6
Saturation Variance	0.051
Low Saturation Ratio	0.12
Medium Saturation Ratio	0.413
High Saturation Ratio	0.467
Saturation Clustering	0.998
Hue Concentration	0.674
Complementary Balance	0.001
Analogous Dominance	0.645
Temperature Bias	0.732

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 minor - Research on Harmony - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0626.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-minor-research-on-harmony_6zo.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 minor chord

synesthetic art

color harmony

musical visualization

acrylic on paper

contemporary abstraction

Synesthetic Explorations

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

a7d2dedccdea1ac3a524441343f43908265a2341e658487e39460405c5161134

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