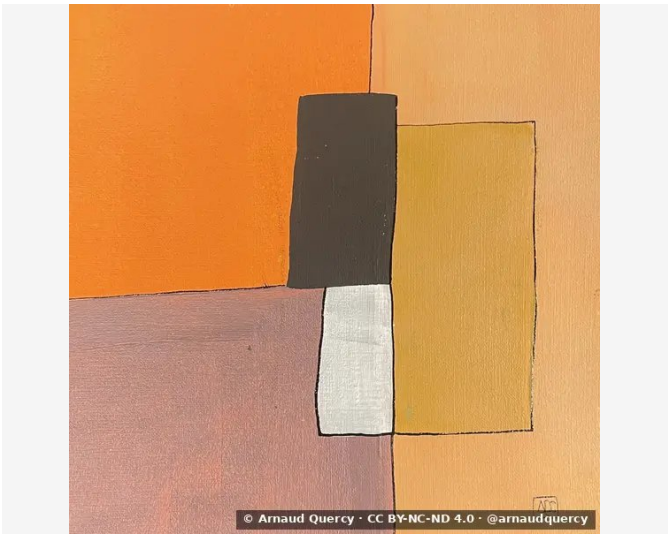
AQC0903 | NAN-COL000056

Nanopublication — Computational Image Analysis - AQC0903

by Arnaud Quercy · D Minor - Research on Harmony - Variations 10 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0903

K-means clustering analysis [3] (10 colors) performed on artwork D Minor [1] - Research on Harmony - Variations 10 (AQC0903) [2] by Arnaud Quercy [2] on 2025-12-11. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

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]: 2096x2096 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		EE832E	25.2	orange	peru
2		E2A765	17.4	orange	sandybrown
3		D09A47	11.7	yellow-orange	goldenrod
4		C08D80	10.7	red-orange	rosybrown
5		EEB779	10.0	orange	burlywood
6		55473B	7.1	orange	dark brown
7		AB7B6E	7.0	red-orange	gray
8		D5A294	6.5	red-orange	tan
9		DDD7CC	3.7	yellow-orange	lightgray
10		351A0E	0.7	orange	very dark orange
11		F9F8E8	0.3	yellow	white [Accent]

Color Families:

Family	%
orange	60.4
red-orange	24.3
yellow-orange	15.4
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
F9F8E8	yellow	white	8.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.126
Mean Local Roughness	0.024
Roughness Uniformity	0.022
Edge Density	0.116
Mean Gradient Magnitude	0.187
Gradient Variance	0.051
Gradient Smoothness	0.0
Directional Coherence	0.007
Pattern Complexity	0.111
Pattern Repetition	1.0
Detail Frequency Ratio	0.669
Spatial Variation	0.071
Texture Consistency	0.5

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.624
Brightness Variance	0.126
Brightness Uniformity	0.797
Brightness Skewness	-1.344
Brightness Entropy	6.552
Rms Contrast	0.126
Michelson Contrast	1.0
Weber Contrast	0.304
Mean Local Contrast	0.027
Contrast Uniformity	0.135
Dynamic Range	1.0
Effective Dynamic Range	0.486
Shadow Percentage	7.432
Midtone Percentage	55.669
Highlight Percentage	36.899
Shadow Clipping	0.001
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.033
Coarse Contrast	0.04
Multiscale Contrast Ratio	0.314
Edge Contrast	0.187
Contrast Clustering	0.5

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.817
Color Clustering	0.519
Color Transition Smoothness	0.542
Transition Uniformity	0.674
Sharp Transition Ratio	0.1
Transition Directionality	0.012
Mean Saturation	0.534
Saturation Variance	0.045
Low Saturation Ratio	0.134
Medium Saturation Ratio	0.593
High Saturation Ratio	0.273
Saturation Clustering	0.999
Hue Concentration	0.989
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

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 (2025). D Minor - Research on Harmony - Variations 10 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0903.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/d-minor-research-on-harmony-variations-10_ibf.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 triad · harmonic translation · synesthetic explorations · spread voicing · acrylic study · color harmony · musical visualization

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

a3e71ab859356a238859c6db508d621c3adb88e437f8ef9da4bf244852084b4a

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