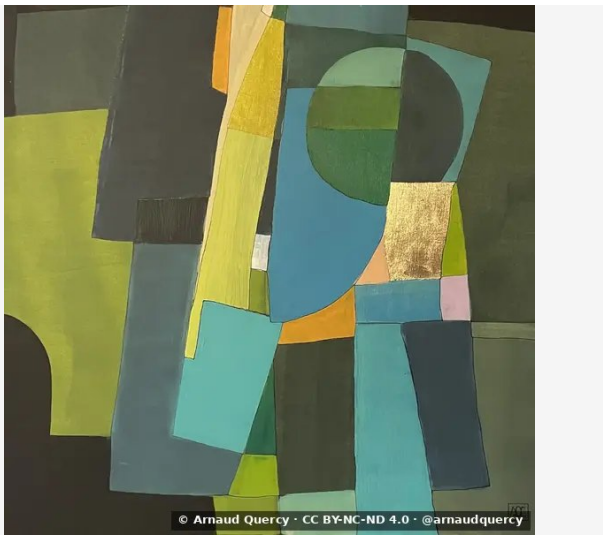
AQC0707 | NAN-COL000245

Nanopublication — Computational Image Analysis - AQC0707

by Arnaud Quercy · F# Minor - Research on Harmony - Variation 4 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0707

Computational image analysis [3] of artwork F# Minor [1] - Research on Harmony - Variation 4 (AQC0707) [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]: 1976x1976 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		474B3C	25.6	yellow-green	darkslategray
2		5A6349	15.7	yellow-green	dark brown
3		9B9F41	13.5	yellow	yellowgreen
4		5E726A	9.5	green	dimgray
5		363228	8.8	yellow	darkslategrey
6		6CAC9C	8.7	green	cadetblue
7		538B93	8.7	blue-green	blue gray
8		D1C25A	4.3	yellow	ochre
9		E2CB93	2.8	yellow-orange	burlywood
10		D3A42E	2.3	yellow-orange	goldenrod
11		BDA29F	0.3	red-orange	steel gray [Accent]
12		8E5D19	0.3	orange	russet [Accent]

Color Families:

Family	%
yellow-green	41.3
yellow	26.6
green	18.2
blue-green	8.7
yellow-orange	5.1
red-orange	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
BDA29F	red-orange	steel gray	10.3
8E5D19	orange	russet	46.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.162
Mean Local Roughness	0.009
Roughness Uniformity	0.021
Edge Density	0.02
Mean Gradient Magnitude	0.069
Gradient Variance	0.038
Gradient Smoothness	0.0
Directional Coherence	0.196
Pattern Complexity	0.106
Pattern Repetition	1.0
Detail Frequency Ratio	0.642
Spatial Variation	0.074
Texture Consistency	0.738

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.43
Brightness Variance	0.162
Brightness Uniformity	0.623
Brightness Skewness	0.493
Brightness Entropy	7.114
Rms Contrast	0.162
Michelson Contrast	1.0
Weber Contrast	0.602
Mean Local Contrast	0.01
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.522
Shadow Percentage	35.415
Midtone Percentage	56.816
Highlight Percentage	7.769
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.012
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.069
Contrast Clustering	0.262

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.734
Color Clustering	0.41
Color Transition Smoothness	0.811
Transition Uniformity	0.749
Sharp Transition Ratio	0.1
Transition Directionality	0.212
Mean Saturation	0.348
Saturation Variance	0.03
Low Saturation Ratio	0.506
Medium Saturation Ratio	0.457
High Saturation Ratio	0.037
Saturation Clustering	0.999
Hue Concentration	0.64
Complementary Balance	0.001
Analogous Dominance	0.69
Temperature Bias	-0.023

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). F# Minor - Research on Harmony - Variation 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0707.html

[2] Quercy, A. (2024). F# Minor - Research on Harmony - Variation 4 - Gallery. https://artquamanima.com/en/artworks/2024/01/f-minor-research-on-harmony-variation-4_7v6.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 · F# minor triad · Chopin Polonaise · synesthetic art · geometric abstraction · musical visualization · acrylic on linen · contemporary painting

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

8d555758ebb45e1e6e64cbeb2fb9a304a543f2a5b29c177ea4331ad04284ec0a

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