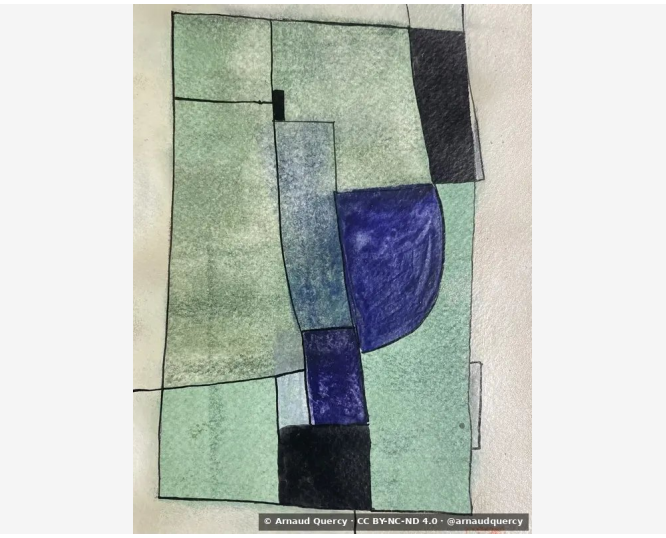
AQC0833 | NAN-COL000122

Nanopublication — Computational Image Analysis - AQC0833

by Arnaud Quercy · F# Major - Research on Harmony - Variation 3 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0833

K-means clustering analysis [3] (10 colors) performed on artwork F# Major [1] - Research on Harmony - Variation 3 (AQC0833) [2] by Arnaud Quercy [2] on 2026-02-04. 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]: 2365x3153 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D3D0C1	18.5	yellow	lightgray
2		A1B7A1	18.2	yellow-green	steel gray
3		B6C5B1	15.6	yellow-green	silver
4		90A48E	13.3	yellow-green	darkseagreen
5		E7E2D8	7.4	yellow-orange	gainsboro
6		77897C	6.2	yellow-green	gray
7		2B2F66	5.6	violet	dusty mauve
8		171B1F	5.5	gray	black
9		31333A	4.9	blue-violet	grayish purple
10		4D5879	4.8	blue-violet	grayish purple
11		DAA696	0.3	red-orange	tan [Accent]
12		D1A893	0.3	orange	tan [Accent]

Color Families:

Family	%
yellow-green	53.3
yellow	18.5
blue-violet	9.7
yellow-orange	7.4
violet	5.6
gray	5.5
red-orange	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
DAA696	red-orange	tan	23.3
D1A893	orange	tan	20.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.232
Mean Local Roughness	0.021
Roughness Uniformity	0.018
Edge Density	0.128
Mean Gradient Magnitude	0.19
Gradient Variance	0.045
Gradient Smoothness	0.0
Directional Coherence	0.001
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.611
Spatial Variation	0.11
Texture Consistency	0.684

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.615
Brightness Variance	0.232
Brightness Uniformity	0.623
Brightness Skewness	-0.991
Brightness Entropy	7.44
Rms Contrast	0.232
Michelson Contrast	1.0
Weber Contrast	0.771
Mean Local Contrast	0.024
Contrast Uniformity	0.231
Dynamic Range	1.0
Effective Dynamic Range	0.729
Shadow Percentage	17.89
Midtone Percentage	26.156
Highlight Percentage	55.954
Shadow Clipping	0.002
Highlight Clipping	0.016
Tonal Balance	0.088
Fine Contrast	0.011
Medium Contrast	0.03
Coarse Contrast	0.048
Multiscale Contrast Ratio	0.217
Edge Contrast	0.19
Contrast Clustering	0.316

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.68
Color Clustering	0.918
Color Transition Smoothness	0.522
Transition Uniformity	0.705
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.178
Saturation Variance	0.02
Low Saturation Ratio	0.872
Medium Saturation Ratio	0.124
High Saturation Ratio	0.004
Saturation Clustering	1.0
Hue Concentration	0.713
Complementary Balance	0.014
Analogous Dominance	0.809
Temperature Bias	-0.784

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). F# Major - Research on Harmony - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0833.html

[2] Quercy, A. (2025). F# Major - Research on Harmony - Variation 3 - Gallery. https://artquamanima.com/en/artworks/2025/01/f-major-research-on-harmony-variation-3_986.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# Major harmony · synesthetic exploration · musical color theory · watercolor study · harmonic translation · geometric abstraction · contemporary synesthesia

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

694a05c2882a1678646112be9ccd04eeebf85b24ab4b47b636ae49228d3caa65

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