AQC0927 | NAN-COL000044

Nanopublication — Computational Image Analysis - AQC0927

by Arnaud Quercy · Ab Major - Research on Harmony - Variations 13 · 2025

CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0927

The artwork Ab Major [1] - Research on Harmony - Variations 13 (AQC0927) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2025-12-11. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

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]: 1932x2898 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		586876	18.1	blue	grayish purple
2		658C9F	17.8	blue	cadetblue
3		C2AEA5	12.1	orange	steel gray
4		89A0AF	11.7	blue	steel gray
5		7C848B	11.5	blue-violet	grayish purple
6		F14B07	10.3	orange	orangered
7		EAC48D	6.5	yellow-orange	burlywood
8		BC402C	5.9	red-orange	brown
9		54432F	4.4	yellow-orange	dark brown
10		251410	1.6	red-orange	very dark gray
11		FDEDB4	0.3	yellow	moccasin [Accent]

Color Families:

Family	%
blue	47.7
orange	22.4
blue-violet	11.5
yellow-orange	10.9
red-orange	7.5
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
FDEDB4	yellow	moccasin	30.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.146
Mean Local Roughness	0.027
Roughness Uniformity	0.027
Edge Density	0.143
Mean Gradient Magnitude	0.206
Gradient Variance	0.075
Gradient Smoothness	0.0
Directional Coherence	0.025
Pattern Complexity	0.128
Pattern Repetition	1.0
Detail Frequency Ratio	0.665
Spatial Variation	0.083
Texture Consistency	0.539

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.515
Brightness Variance	0.146
Brightness Uniformity	0.716
Brightness Skewness	0.091
Brightness Entropy	7.157
Rms Contrast	0.146
Michelson Contrast	1.0
Weber Contrast	0.503
Mean Local Contrast	0.029
Contrast Uniformity	0.042
Dynamic Range	1.0
Effective Dynamic Range	0.49
Shadow Percentage	7.677
Midtone Percentage	75.196
Highlight Percentage	17.127
Shadow Clipping	0.007
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.015
Medium Contrast	0.036
Coarse Contrast	0.046
Multiscale Contrast Ratio	0.33
Edge Contrast	0.206
Contrast Clustering	0.461

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.755
Color Clustering	0.175
Color Transition Smoothness	0.473
Transition Uniformity	0.488
Sharp Transition Ratio	0.1
Transition Directionality	0.031
Mean Saturation	0.369
Saturation Variance	0.072
Low Saturation Ratio	0.503
Medium Saturation Ratio	0.337
High Saturation Ratio	0.16
Saturation Clustering	0.999
Hue Concentration	0.127
Complementary Balance	0.308
Analogous Dominance	0.559
Temperature Bias	-0.12

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). Ab Major - Research on Harmony - Variations 13 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0927.html

[2] Quercy, A. (2025). Ab Major - Research on Harmony - Variations 13 - Gallery. https://artquamanima.com/en/artworks/2025/11/ab-major-research-on-harmony-variations-13_ijq.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 translation · Ab Major chord · piano études · synesthetic explorations · acrylic painting · harmonic visualization · cycle of fifths · geometric abstraction

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

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