AQC0943

Nanopublication — Computational Image Analysis - AQC0930

by Arnaud Quercy · E Major - Research on Harmony - Variations 11 · 2025

Claim 1: Computational Image Analysis - AQC0930

> Computational image analysis [3] of artwork Bb Minor - Research on Harmony - Variations 11 (AQC0930) [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 2025-12-11.

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]: 1934x2901 pixels. Analysis date: 2026-01-03.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		A88ACB	17.2	violet	mediumpurple
2		51B8E4	17.0	blue	mediumturquoise
3		956DAE	16.2	violet	lightslategray
4		69DAE5	14.8	blue-green	skyblue
5		D4C3E6	11.0	violet	thistle
6		D89AB7	8.6	red	plum
7		48464C	6.1	gray	dusty mauve
8		52517A	3.6	violet	dusty mauve
9		F1ECEC	3.6	white	white
10		161728	1.9	violet	very dark gray
11		96B1DB	0.3	blue-violet	lightsteelblue [Accent]
12		371450	0.3	red-violet	very dark purple [Accent]
13		B0898B	0.3	red-orange	rosybrown [Accent]

Color Families:

Family	%
violet	49.9
blue	17.0
blue-green	14.8
red	8.6
gray	6.1
white	3.6
blue-violet	0.3
red-violet	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
96B1DB	blue-violet	lightsteelblue	24.0
371450	red-violet	very dark purple	42.4
B0898B	red-orange	rosybrown	15.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.168
Mean Local Roughness	0.024
Roughness Uniformity	0.027
Edge Density	0.104
Mean Gradient Magnitude	0.179
Gradient Variance	0.075
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.122
Pattern Repetition	1.0
Detail Frequency Ratio	0.646
Spatial Variation	0.082
Texture Consistency	0.552

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.613
Brightness Variance	0.168
Brightness Uniformity	0.727
Brightness Skewness	-0.8
Brightness Entropy	7.253
Rms Contrast	0.168
Michelson Contrast	1.0
Weber Contrast	0.566
Mean Local Contrast	0.025
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.565
Shadow Percentage	9.183
Midtone Percentage	51.611
Highlight Percentage	39.206
Shadow Clipping	0.002
Highlight Clipping	0.021
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.031
Coarse Contrast	0.043
Multiscale Contrast Ratio	0.312
Edge Contrast	0.179
Contrast Clustering	0.448

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.753
Color Clustering	0.552
Color Transition Smoothness	0.547
Transition Uniformity	0.483
Sharp Transition Ratio	0.1
Transition Directionality	0.023
Mean Saturation	0.379
Saturation Variance	0.038
Low Saturation Ratio	0.308
Medium Saturation Ratio	0.684
High Saturation Ratio	0.008
Saturation Clustering	0.999
Hue Concentration	0.674
Complementary Balance	0.007
Analogous Dominance	0.691
Temperature Bias	-0.346

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). E Major - Research on Harmony - Variations 11 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0943.html

[2] Quercy, A. (2025). Bb Minor - Research on Harmony - Variations 11 - Artwork Catalog. https://artquamanima.com/en/artworks/2025/12/e-major-research-on-harmony-variations-11_1i4v.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/mmids-cmp-2025-computational-image-analysis-standard-dg1.html

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

`1ce91ffda2b4d7053d4122e7d1bc2e452f3f26b6736eb9b-c153256fc43171a73`

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