AQC0917

Nanopublication — Computational Image Analysis - AQC0917

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

Claim 1: Computational Image Analysis - AQC0917

> Computational image analysis [3] of artwork Bb Minor [1] - Research on Harmony - Variations 10 (AQC0917) [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]: 1985x1985 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		3BACDE	24.6	blue	mediumturquoise
2		B57DBF	15.2	red-violet	mediumorchid
3		1B86CF	14.0	blue-violet	dodgerblue
4		D8B2DB	12.4	red-violet	thistle
5		C693CC	10.5	red-violet	plum
6		554F4C	8.4	gray	darkslategray
7		A16EA9	6.7	red-violet	dusty mauve
8		9C7673	3.6	red-orange	gray
9		ECDFD6	2.9	orange	gainsboro
10		151627	1.7	violet	very dark gray
11		FEFBF0	0.3	yellow	white [Accent]
12		A89497	0.3	red	rosybrown [Accent]
13		CAC1B0	0.3	yellow-orange	silver [Accent]

Color Families:

Family	%
red-violet	44.8
blue	24.6
blue-violet	14.0
gray	8.4
red-orange	3.6
orange	2.9
violet	1.7
yellow	0.3
red	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
FEFBF0	yellow	white	6.1
A89497	red	rosybrown	8.1
CAC1B0	yellow-orange	silver	10.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.149
Mean Local Roughness	0.03
Roughness Uniformity	0.029
Edge Density	0.164
Mean Gradient Magnitude	0.231
Gradient Variance	0.089
Gradient Smoothness	0.0
Directional Coherence	0.014
Pattern Complexity	0.124
Pattern Repetition	1.0
Detail Frequency Ratio	0.661
Spatial Variation	0.064
Texture Consistency	0.662

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.562
Brightness Variance	0.149
Brightness Uniformity	0.735
Brightness Skewness	-0.371
Brightness Entropy	7.099
Rms Contrast	0.149
Michelson Contrast	1.0
Weber Contrast	0.523
Mean Local Contrast	0.032
Contrast Uniformity	0.049
Dynamic Range	1.0
Effective Dynamic Range	0.482
Shadow Percentage	7.303
Midtone Percentage	71.802
Highlight Percentage	20.895
Shadow Clipping	0.004
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.017
Medium Contrast	0.039
Coarse Contrast	0.052
Multiscale Contrast Ratio	0.32
Edge Contrast	0.231
Contrast Clustering	0.338

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.689
Color Clustering	0.551
Color Transition Smoothness	0.429
Transition Uniformity	0.42
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.47
Saturation Variance	0.075
Low Saturation Ratio	0.36
Medium Saturation Ratio	0.276
High Saturation Ratio	0.364
Saturation Clustering	0.998
Hue Concentration	0.637
Complementary Balance	0.012
Analogous Dominance	0.52
Temperature Bias	-0.389

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). Bb Minor - Research on Harmony - Variations 10 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0917.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/bb-minor-research-on-harmony-variations-10_ig4.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)

ee33e65a44cddb247a4bc89f0006e388e8e008744ddb45987a982fcb-cf0bbbcb

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