

Nanopublication – Computational Image Analysis –
AQC0773

by Arnaud Quercy · B Minor – Research on Harmony – Variation 4 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0773

K-means clustering analysis [3] (10 colors) performed on artwork B Minor [1] – Research on Harmony – Variation 4 (AQC0773) [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]: 2400x3600 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C1C2B5	22.5	yellow-green	silver
2		101518	18.3	black	black
3		6EAB6F	13.9	yellow-green	darkseagreen
4		7CC587	12.6	yellow-green	mediumaquamarine
5		293C37	11.1	green	darkslategray
6		1E825B	6.4	yellow-green	seagreen
7		869B9D	5.0	blue-green	lightslategray
8		43574C	4.0	yellow-green	darkslategrey
9		87BC2C	3.7	yellow-green	yellowgreen
10		A8DB7A	2.5	yellow-green	lightgreen
11		766C38	0.3	yellow	dark brown [Accent]

Color Families:

Family	%
yellow-green	65.6
black	18.3
green	11.1
blue-green	5.0
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
766C38	yellow	dark brown	30.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.257
Mean Local Roughness	0.01
Roughness Uniformity	0.013
Edge Density	0.018
Mean Gradient Magnitude	0.097
Gradient Variance	0.033
Gradient Smoothness	0.0
Directional Coherence	0.034
Pattern Complexity	0.113
Pattern Repetition	1.0
Detail Frequency Ratio	0.574
Spatial Variation	0.223
Texture Consistency	0.369

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.48
Brightness Variance	0.257
Brightness Uniformity	0.464
Brightness Skewness	-0.458
Brightness Entropy	7.321
Rms Contrast	0.257
Michelson Contrast	1.0
Weber Contrast	0.897
Mean Local Contrast	0.012
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.725
Shadow Percentage	32.753
Midtone Percentage	36.873
Highlight Percentage	30.374
Shadow Clipping	0.007
Highlight Clipping	0.0
Tonal Balance	0.017
Fine Contrast	0.005
Medium Contrast	0.015
Coarse Contrast	0.03
Multiscale Contrast Ratio	0.158
Edge Contrast	0.097
Contrast Clustering	0.631

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.83
Color Clustering	0.774
Color Transition Smoothness	0.741
Transition Uniformity	0.767
Sharp Transition Ratio	0.1
Transition Directionality	0.042
Mean Saturation	0.328
Saturation Variance	0.044
Low Saturation Ratio	0.417
Medium Saturation Ratio	0.48
High Saturation Ratio	0.104
Saturation Clustering	0.999
Hue Concentration	0.764
Complementary Balance	0.009
Analogous Dominance	0.701
Temperature Bias	-0.827

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). B Minor - Research on Harmony - Variation 4 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0773.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/b-minor-research-on-harmony-variation-4_8ku.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

B minor triad

synesthetic art

musical harmony visualization

acrylic on wood panel

geometric color composition

contemporary music art

harmonic color translation

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

ff273ac49b4da6a98864f58515fe063c4bfea2ab1c4d2ed8141ddc1134f6ab52

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