

Nanopublication – Computational Image Analysis –
AQC0693

by Arnaud Quercy · B minor – Research on Harmony – Variation 1 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0693

Computational image analysis [3] of artwork B minor – Research [1] on Harmony – Variation 1 (AQC0693) [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 2026-02-04.

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]: 1767x2356 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E59966	15.7	orange	sandybrown
2		DD8B57	14.8	orange	peru
3		8F8F27	14.0	yellow	olivedrab
4		393122	11.5	yellow-orange	darkslategray
5		949E38	11.4	yellow	yellowgreen
6		D3B679	9.9	yellow-orange	burlywood
7		C1733B	7.1	orange	chocolate
8		C6871C	5.9	yellow-orange	darkgoldenrod
9		594F2E	5.7	yellow-orange	dark brown
10		BAAD5B	3.9	yellow	ochre
11		73574F	0.3	red-orange	dimgray [Accent]

Color Families:

Family	%
orange	37.7
yellow-orange	33.0
yellow	29.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
73574F	red-orange	dimgray	13.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.159
Mean Local Roughness	0.01
Roughness Uniformity	0.023
Edge Density	0.013
Mean Gradient Magnitude	0.07
Gradient Variance	0.04
Gradient Smoothness	0.0
Directional Coherence	0.155
Pattern Complexity	0.108
Pattern Repetition	1.0
Detail Frequency Ratio	0.651
Spatial Variation	0.103
Texture Consistency	0.523

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.542
Brightness Variance	0.159
Brightness Uniformity	0.707
Brightness Skewness	-1.115
Brightness Entropy	6.77
Rms Contrast	0.159
Michelson Contrast	1.0
Weber Contrast	0.676
Mean Local Contrast	0.01
Contrast Uniformity	0.0
Dynamic Range	0.984
Effective Dynamic Range	0.533
Shadow Percentage	15.675
Midtone Percentage	66.077
Highlight Percentage	18.248
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.013
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.07
Contrast Clustering	0.477

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.748
Color Clustering	0.409
Color Transition Smoothness	0.811
Transition Uniformity	0.727
Sharp Transition Ratio	0.1
Transition Directionality	0.179
Mean Saturation	0.587
Saturation Variance	0.021
Low Saturation Ratio	0.026
Medium Saturation Ratio	0.767
High Saturation Ratio	0.207
Saturation Clustering	0.999
Hue Concentration	0.959
Complementary Balance	0.0
Analogous Dominance	0.999
Temperature Bias	0.797

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 1 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0693.html>

[2] Quercy, A. (2024). B minor - Research on Harmony - Variation 1 - Gallery. https://artquamanima.com/en/art-works/2024/01/b-minor-research-on-harmony-variation-1_7pq.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

synesthetic translation

Bach B minor Mass

acrylic geometric abstraction

musical color correspondence

Synesthetic Explorations

contemporary harmonic visualization

pitch-to-color system

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

fe3394db6b99c6930301e5cca8e0beba1fdd2ae3e4df9e7f89824e1d3ff6114f

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