

Nanopublication – Computational Image Analysis –
AQC0630

by Arnaud Quercy · Eb minor – Research on Harmony – Variation 2 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0630

Computational image analysis [3] of artwork Eb minor – Research [1] on Harmony – Variation 2 (AQC0630) [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]: 2267x3401 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		4757A5	22.0	violet	darkslateblue
2		323745	18.1	blue-violet	grayish purple
3		6264B1	12.9	violet	slateblue
4		4D525F	12.1	blue-violet	grayish purple
5		1A1B17	8.7	gray	black
6		6A6D7A	6.6	blue-violet	grayish purple
7		5BBA69	6.4	yellow-green	mediumseagreen
8		77D583	5.6	yellow-green	darkseagreen
9		8994B5	3.9	blue-violet	lightslategray
10		D1E1EC	3.8	blue	gainsboro
11		96773B	0.3	yellow-orange	burnt sienna [Accent]
12		F0FDFA	0.3	green	white [Accent]

Color Families:

Family	%
blue-violet	40.7
violet	34.9
yellow-green	12.0
gray	8.7
blue	3.8
yellow-orange	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
96773B	yellow-orange	burnt sienna	37.3
F0FDFA	green	white	5.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.183
Mean Local Roughness	0.029
Roughness Uniformity	0.032
Edge Density	0.13
Mean Gradient Magnitude	0.253
Gradient Variance	0.115
Gradient Smoothness	0.0
Directional Coherence	0.02
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.626
Spatial Variation	0.101
Texture Consistency	0.666

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.382
Brightness Variance	0.183
Brightness Uniformity	0.523
Brightness Skewness	0.79
Brightness Entropy	7.335
Rms Contrast	0.183
Michelson Contrast	1.0
Weber Contrast	0.726
Mean Local Contrast	0.033
Contrast Uniformity	0.032
Dynamic Range	1.0
Effective Dynamic Range	0.604
Shadow Percentage	36.07
Midtone Percentage	55.685
Highlight Percentage	8.245
Shadow Clipping	0.035
Highlight Clipping	0.018
Tonal Balance	0.0
Fine Contrast	0.016
Medium Contrast	0.042
Coarse Contrast	0.072
Multiscale Contrast Ratio	0.216
Edge Contrast	0.253
Contrast Clustering	0.334

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.722
Color Clustering	0.646
Color Transition Smoothness	0.325
Transition Uniformity	0.244
Sharp Transition Ratio	0.1
Transition Directionality	0.023
Mean Saturation	0.392
Saturation Variance	0.032
Low Saturation Ratio	0.322
Medium Saturation Ratio	0.664
High Saturation Ratio	0.015
Saturation Clustering	0.998
Hue Concentration	0.637
Complementary Balance	0.078
Analogous Dominance	0.735
Temperature Bias	-0.73

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). Eb minor - Research on Harmony - Variation 2 - Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0630.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/eb-minor-research-on-harmony-variation-2_718.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

E-flat minor chord

synesthetic art

harmonic translation

violet tones

blue-violet forms

acrylic painting

musical visualization

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

a6e50f388071692b813414b4aaa4ad1f229176559369de35794cc238cd0ff3a6

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