

Nanopublication – Computational Image Analysis – AQC0869

by Arnaud Quercy · Db Major – Research on Harmony – Variations 15 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0869

The artwork Db Major [1] – Research on Harmony – Variations 15 (AQC0869) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2025-12-11. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

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]: 1974x2961 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		354C73	18.1	blue-violet	grayish purple
2		466189	14.8	blue-violet	grayish purple
3		65C6D0	13.5	blue-green	mediumturquoise
4		404344	13.4	gray	darkslategray
5		809FB2	9.2	blue	lightslategray
6		D5D4C8	8.9	yellow	lightgray
7		5A7FA8	6.9	blue-violet	grayish purple
8		D3A923	6.5	yellow-orange	goldenrod
9		24292B	4.9	gray	very dark gray
10		DAB883	3.7	yellow-orange	burlywood
11		878B70	0.3	yellow-green	gray [Accent]
12		9D877D	0.3	orange	gray [Accent]

Color Families:

Family	%
blue-violet	39.9
gray	18.3
blue-green	13.5
yellow-orange	10.2
blue	9.2
yellow	8.9
yellow-green	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
878B70	yellow-green	gray	15.7
9D877D	orange	gray	11.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.208
Mean Local Roughness	0.031
Roughness Uniformity	0.029
Edge Density	0.142
Mean Gradient Magnitude	0.25
Gradient Variance	0.098
Gradient Smoothness	0.0
Directional Coherence	0.003
Pattern Complexity	0.111
Pattern Repetition	1.0
Detail Frequency Ratio	0.643
Spatial Variation	0.111
Texture Consistency	0.845

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.473
Brightness Variance	0.208
Brightness Uniformity	0.561
Brightness Skewness	0.285
Brightness Entropy	7.414
Rms Contrast	0.208
Michelson Contrast	1.0
Weber Contrast	0.682
Mean Local Contrast	0.034
Contrast Uniformity	0.128
Dynamic Range	1.0
Effective Dynamic Range	0.62
Shadow Percentage	36.43
Midtone Percentage	39.624
Highlight Percentage	23.946
Shadow Clipping	0.004
Highlight Clipping	0.008
Tonal Balance	0.086
Fine Contrast	0.016
Medium Contrast	0.042
Coarse Contrast	0.063
Multiscale Contrast Ratio	0.259
Edge Contrast	0.25
Contrast Clustering	0.155

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.74
Color Clustering	0.554
Color Transition Smoothness	0.343
Transition Uniformity	0.327
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.394
Saturation Variance	0.056
Low Saturation Ratio	0.312
Medium Saturation Ratio	0.618
High Saturation Ratio	0.07
Saturation Clustering	0.999
Hue Concentration	0.692
Complementary Balance	0.13
Analogous Dominance	0.855
Temperature Bias	-0.716

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). Db Major - Research on Harmony - Variations 15 - Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0869.html>

[2] Quercy, A. (2025). Db Major - Research on Harmony - Variations 15 - Gallery. https://artquamanima.com/en/art-works/2025/11/db-major-research-on-harmony-variations-15_hz5.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

Db Major chord

synesthetic exploration

acrylic on paper

harmonic translation

blue-violet composition

musical visualization

color-pitch correspondence

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

07d659c4025c9b475fbccb49d039981e11c31f220aa30e0530d59fe8bf5d626b

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