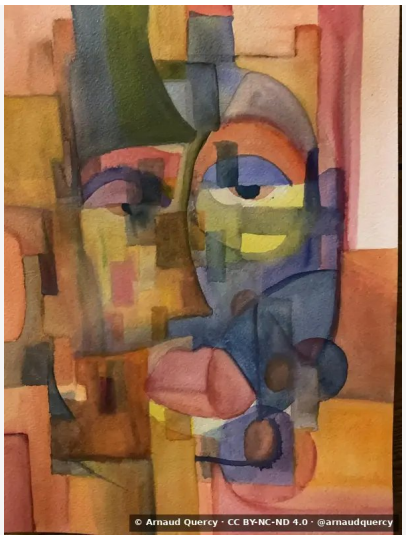
AQC0422 | NAN-COL000478

Nanopublication — Computational Image Analysis - AQC0422

by Arnaud Quercy · The Woman Singing, Barcelona · 2023



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0422

Computational image analysis [3] of artwork The [1] Woman Singing, Barcelona (AQC0422) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		A86745	15.1	orange	burnt sienna
2		C08061	13.0	orange	peru
3		C0813A	12.2	orange	chocolate
4		895534	11.9	orange	burnt sienna
5		4E5057	10.2	gray	grayish purple
6		372E27	10.0	orange	darkslategray
7		614729	9.8	orange	dark brown
8		766D6E	8.7	gray	dimgray
9		D8AA7F	5.5	orange	burlywood
10		E2C8B3	3.7	orange	wheat
11		2A1103	0.3	red-orange	very dark red [Accent]
12		988E4C	0.3	yellow	peru [Accent]
13		696F98	0.3	violet	dusty mauve [Accent]
14		C7AD37	0.3	yellow-orange	goldenrod [Accent]
15		18223E	0.3	blue-violet	very dark indigo [Accent]

Color Families:

Family	%
orange	81.1
gray	18.9
red-orange	0.3
yellow	0.3
violet	0.3
yellow-orange	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
2A1103	red-orange	very dark red	16.3
988E4C	yellow	peru	36.5
696F98	violet	dusty mauve	24.4
C7AD37	yellow-orange	goldenrod	61.1
18223E	blue-violet	very dark indigo	19.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.155
Mean Local Roughness	0.008
Roughness Uniformity	0.007
Edge Density	0.014
Mean Gradient Magnitude	0.084
Gradient Variance	0.01
Gradient Smoothness	0.0
Directional Coherence	0.006
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.579
Spatial Variation	0.068
Texture Consistency	0.749

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.444
Brightness Variance	0.155
Brightness Uniformity	0.65
Brightness Skewness	0.239
Brightness Entropy	7.286
Rms Contrast	0.155
Michelson Contrast	0.984
Weber Contrast	0.615
Mean Local Contrast	0.01
Contrast Uniformity	0.203
Dynamic Range	0.984
Effective Dynamic Range	0.537
Shadow Percentage	24.954
Midtone Percentage	66.776
Highlight Percentage	8.269
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.051
Fine Contrast	0.004
Medium Contrast	0.012
Coarse Contrast	0.023
Multiscale Contrast Ratio	0.193
Edge Contrast	0.084
Contrast Clustering	0.251

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.666
Color Clustering	0.556
Color Transition Smoothness	0.766
Transition Uniformity	0.926
Sharp Transition Ratio	0.1
Transition Directionality	0.006
Mean Saturation	0.478
Saturation Variance	0.043
Low Saturation Ratio	0.238
Medium Saturation Ratio	0.634
High Saturation Ratio	0.128
Saturation Clustering	1.0
Hue Concentration	0.806
Complementary Balance	0.078
Analogous Dominance	0.899
Temperature Bias	0.806

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 (2023). The Woman Singing, Barcelona — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0422.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/the-woman-singing-barcelona_4sc.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

watercolor portrait · geometric abstraction · burnt sienna tones · Mediterranean Echoes · cubist influence · earth tones · Barcelona portrait · contemporary watercolor

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

de281ff362e3a418745e1c0cc8db0546fba87968d00c83b1f7a17d9c15f56da9

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