AQC0425

Nanopublication — Computational Image Analysis - AQC0425

by Arnaud Quercy · The handbells player · 2023

Claim 1: Computational Image Analysis - AQC0425

> Analysis record [3]: The [1] handbells player (AQC0425) [2] by Arnaud Quercy [2]. Method: k-means. Parameters: 10 colors. Metrics: color distribution, texture, brightness, spatial patterns. Completed: 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		D5CCBA	17.1	yellow-orange	silver
2		B4A588	16.3	yellow-orange	rosybrown
3		C3B7A5	15.7	yellow-orange	tan
4		9F8E70	10.9	yellow-orange	gray
5		7591A7	10.2	blue-violet	lightslategray
6		7A6C5E	8.0	orange	dimgray
7		617585	7.3	blue	grayish purple
8		8DB1C4	7.2	blue	steel gray
9		455459	5.7	blue	darkslategray
10		1E2426	1.6	gray	very dark gray
11		175856	0.3	green	darkslategray [Accent]
12		AE5E5F	0.3	red-orange	indianred [Accent]
13		803C45	0.3	red	burnt sienna [Accent]
14		327784	0.3	blue-green	seagreen [Accent]
15		686335	0.3	yellow	dark brown [Accent]

Color Families:

Family	%
yellow-orange	60.0
blue	20.2
blue-violet	10.2
orange	8.0
gray	1.6
green	0.3
red-orange	0.3
red	0.3
blue-green	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
175856	green	darkslategray	21.6
AE5E5F	red-orange	indianred	35.8
803C45	red	burnt sienna	31.0
327784	blue-green	seagreen	22.8
686335	yellow	dark brown	27.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.155
Mean Local Roughness	0.017
Roughness Uniformity	0.017
Edge Density	0.073
Mean Gradient Magnitude	0.143
Gradient Variance	0.033
Gradient Smoothness	0.0
Directional Coherence	0.021
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.624
Spatial Variation	0.087
Texture Consistency	0.659

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.611
Brightness Variance	0.155
Brightness Uniformity	0.747
Brightness Skewness	-0.753
Brightness Entropy	7.188
Rms Contrast	0.155
Michelson Contrast	1.0
Weber Contrast	0.493
Mean Local Contrast	0.018
Contrast Uniformity	0.099
Dynamic Range	0.992
Effective Dynamic Range	0.494
Shadow Percentage	4.994
Midtone Percentage	52.984
Highlight Percentage	42.022
Shadow Clipping	0.019
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.023
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.269

Metric	Value
Edge Contrast	0.143
Contrast Clustering	0.341

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.729
Color Clustering	0.752
Color Transition Smoothness	0.634
Transition Uniformity	0.776
Sharp Transition Ratio	0.1
Transition Directionality	0.026
Mean Saturation	0.229
Saturation Variance	0.016
Low Saturation Ratio	0.737
Medium Saturation Ratio	0.258
High Saturation Ratio	0.005
Saturation Clustering	1.0
Hue Concentration	0.152
Complementary Balance	0.254
Analogous Dominance	0.549
Temperature Bias	0.068

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 handbells player — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0425.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/the-handbells-player_4ti.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

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

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