

https://dspace.org/

Radiant Hue: Exploring the Significance of the Black-White-Red Triad in Southern African San Rock Art

Hayden, Miesha

2021

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/50069

Hayden, Miesha. (2025). Radiant Hue: Exploring the Significance of the Black-White-Red Triad in Southern African San Rock Art [PhD thesis, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/50069

Downloaded from a DSpace repository. https://dspace.org/

RADIANT HUE: EXPLORING THE SIGNIFICANCE OF THE BLACK-WHITE-RED TRIAD IN SOUTHERN AFRICAN SAN ROCK ART

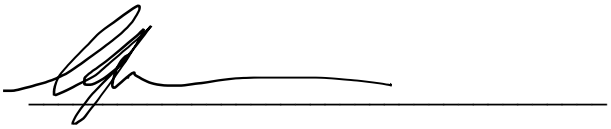
M. Hayden

A thesis submitted to the Faculty of Humanities, University of the Witwatersrand, in fulfilment of the requirements for the degree of Doctor of Philosophy (Art History)

Johannesburg, 2021

DECLARATION

I declare that this thesis is my own, unaided work. It is being submitted for the Degree of Doctor of Philosophy (Art History) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



(Signature of candidate)

_____11_____day of _____February_____20_____21_____

ABSTRACT

This thesis investigates the potential significance of the black-white-red triad in the San rock paintings of southern Africa. Colour is a pivotal element of design and an obvious technical tool of the artist, yet it also conveys analogical and symbolic meaning. While there is great diversity in the way colour is deployed in art, with culturally specific associations, a trilogy of black, white and red has been identified as recurrent and of particular importance in African art. This colour triad may have been used as a metaphor for spiritual potency among San communities. The problem to be explored is whether there is any symbolic use of colour in the San rock paintings with a view to examining the role of colour within the indigenous knowledge systems of the San, technically, aesthetically and metaphorically. Previous research has not completely addressed the complexity of colour and instead has focused on figural iconography and painting technology. This study will examine colour references in San ethnography and be channelled through a site-specific study located at Kaoxa's Shelter in the Mapungubwe region, Limpopo Province. Fetcani Glen in the Eastern Cape Drakensberg, the Sevilla trail in the Cederberg mountains of the Western Cape, and Ezeljagdspoort near the town of George in the south-eastern Western Cape, are comparative sites for investigation into the relationship between aesthetics and symbolism. This study aims to contribute to our understanding of the importance of colour selection, application, materiality and valence within this pictorial tradition.

Keywords: Colour, rock paintings, San, art, symbolic, technique, aesthetic, metaphor, Mapungubwe, Drakensberg, Cederberg, George

In loving memory of

Jacqueline

and

Stephen

and for the *gracious uncertainty* of the Divine

Oswald Chambers

ACKNOWLEDGEMENTS

I have been given the opportunity to pursue my graduate studies with scholars in South Africa who are at the forefront of southern African rock art and art historical discourse. In this respect, I have been guided and reassured through the consistent dedication of my supervisor, Dr Justine Wintjes. Her breadth of knowledge is remarkable, and her balance of sensitive redirection and keen intellect have served as the platform upon which this work has been made possible. The scholarship of the late Edward Eastwood has been a guiding resource for my research, which I hope extends, in a small way, his ground-breaking work at Kaoxa's Shelter.

My interest in South African rock art was supported early on by my mentor, Professor Deborah Sanders. Since the inception of my fledgling ideas around spirituality and art, she has been a source of encouragement and counsel. In conjunction with her advocacy of my project and extensive professional involvement in southern Africa, she has afforded me the opportunity to engage with Professor Sibusiso Nkomo and Dr Renosi Mokate, and I am indebted to them for their hospitality and generosity of spirit.

For facilitating my fieldwork in various regions of South Africa, thanks are due in large part to the following people: those in the northern Limpopo Shashi confluence area (LSCA) of South Africa; Cedric Sethlako of Mapungubwe National Park for his insight and exceptional commitment to accessing every niche of the Mapungubwe landscape; and Andrew Rae and Brigitte Eloff for their expertise and field guide service at Kaoxa Bush Camp.

In the south-eastern mountains of the uKhahlamba-Drakensberg Royal Natal National Park, I am thankful to Lawrence Msimanga who joined our group in Royal Natal and Gavin Whitelaw who provided an informative introduction to Giant's Castle Nature Reserve and subsidiary sites with a comprehensive overview of affiliated rock art, archaeological, geological and historical markers.

In the Cederberg region of the Western Cape, David van der Westhuizen of the Clanwilliam Living Landscape Project provided me with an in-depth study tour programme of the Sevilla Trail.

In the George region of the Western Cape, Hugo Leggatt coordinated and led my field study to the Ezeljagdspoort site in Oudtshoorn and imparted his encyclopaedic knowledge of the regional rock art sites. Both Hugo and his wife Helen have been sources of inspiration.

Nomonde Ntsepo provided significant guidance on early drafts of the thesis and her literary background was an exceptional asset to our fruitful discussions about creative intent.

I'd like to thank the staff of the Jagger Library at the University of Cape Town for allowing access to the Bleek and Lloyd archive.

Amber Germano, Registrar at The Newark Museum and Linda Nieuwenhuizen, Consultant Conservator of the African Collections for The Newark Museum, who provided technical advice on the use of infrared photographic processing which was carried out in conjunction with this research.

In Johannesburg, Anitra Nettleton Professor Emerita at Wits School of Arts, University of the Witwatersrand and Research Professor at the University of Johannesburg. I would like to thank Professor Gerrit Olivier who initiated the reconfiguration of the theoretical premise of my methodology through commentary on my thesis proposal.

The Frobenius Working Group at the University of the Witwatersrand, provided photography of my primary site for this project. This is a collective of scholars working under the direction of my advisor Dr Justine Wintjes on rock art scholarship related to the ethnologist and prehistorian Leo Frobenius's expeditions through southern Africa during the early twentieth century.

The mixed media contribution of South African artist Adele Prins is an addition to this thesis and stands as an informative visual counterpart for the rock art site at Kaoxa's Shelter.

I am also thankful for the unwavering support and love I have received from my husband and sons, all of whom have sustained me throughout this journey. The guidance of my mother has enlightened my path, while my perseverance was encouraged by my Aunt Gwen. Lastly, I would like to thank Jane, who shared my progress and setbacks in the meditative space of the forest, and Reiko, who illuminated my egress through prayer.

CONTENTS **PAGE**

DECLARATION i
ABSTRACT ii
DEDICATION iii
ACKNOWLEDGEMENTS iv
LIST OF FIGURES x
LIST OF ANNEXES xv
ACRONYMS xvi

INTRODUCTION

Rock Art and Art History 1
Terms and Definitions 2
'The Visual as a Site of Meaning' 3
Literature Review 7
San Painting Tradition and Chronological Challenges 7
The Role of Colour in Previous Scholarship 7
Copying Techniques 9
Pigment Analysis in Rock Art 14
Ethnographic Colour References 15
Thesis Statement 18
Methodology 19
Research Methods Timetable 22
Thesis Structure 24

CHAPTER ONE – ART AND TRANSLATION

1.1 Art 28
1.2 Formalism 28
1.3 The Black-White-Red Triad, a Way into the Study of Colour 32
1.4 The Black-White-Red Triad in Africa 34
1.5 Translation 37
1.5.1 Colour and Translation 37
1.6 Colour in San Ethnography 41

1.7 Components of Colour Analysis in Translation 41
1.8 Summary 43

CHAPTER TWO – TECHNIQUE, ON THE PATH TO COLOUR VALENCE

2.1 Sevilla Trail Sites (Cederberg Mountains, Western Cape, South Africa) 46
2.2 The Sevilla Trail Sites and the Paint Patch Motif 52
2.3 The Technical Realm of Colour 53
2.4 The Paint Patch Motif, Colour Procurement, and Preparation 55
2.5 Pigment Procurement 58
2.6 Paint Preparation 60
2.7 Insight on Ritual and Transmutation Through Procurement and Preparation 68
2.8 The Paint Patch Motif, Colour Application 71
2.9 The Paint Patch Motif, Colourful Interchange 85
2.10 Summary 95

CHAPTER THREE – AESTHETIC COLOUR PARADIGM

3.1 Aesthetics 96
3.2 Aesthetics in Rock Art and the Point of Departure 99
3.3 The Interface Between Motif and Pattern Adapted from Convention and Derivative 100
3.4 Challenges of Western-Centric Aesthetics 102
3.5 The Aesthetic Realm of Colour 105
3.6 'Threads of Light', an Aesthetic Motif 108
3.7 'Bleeding Threads', an Aesthetic Pattern 114
3.8 Variations on the Colour Red 117
3.9 Gestural Colour Application 122
3.10 Colour Perspective 126
3.11 Coloured Pictorial Positioning 126
3.12 The Triad as an Aesthetic and Formal Device 132
3.13 The Interface Between Colour Patterns and Aesthetics 132
3.14 Summary 133

CHAPTER FOUR – COLOUR AS A METAPHOR

4.1 Metaphor 135
4.2 History of Colour as a Metaphor in Art Historical Discourse 136

4.3 'Swift People' Motif Examined Through Metaphor 139
4.4 Evolution of a Motif 140
4.5 Polysemic Implications 144
4.6 Colour Analysis 146
4.7 Metaphoric Implications of Colour Valence 149
4.8 Exploring the Concept of Actualisation 152
4.9 Summary 154

SECTION I – OVERVIEW 155

CHAPTER FIVE – KAOXA'S SHELTER: GIRAFFE, GUIDE TO THE SPIRIT WORLD

5.1 Kaoxa's Shelter, Mapungubwe 159
5.2 Giraffe, a 'Great Meat Animal' 165
5.3 Colour as an Egress For Radiance, or Light – Technical Use of Colour 170
5.4 The Relationship Between Motif and Pattern, Colour Aesthetic 178
5.5 Implications of Meaning, Colour Metaphor 180

CHAPTER SIX – KAOXA'S SHELTER: KUDU AND FERTILITY

6.1 Female Kudu and Fertility 186
6.2 Kaoxa's Shelter, A Pair of Female Kudu 188
6.3 Colour Shift, Recasting The Emergence of 'Light' – Technical Use of Colour 191
6.4 The Relationship Between Motif and Pattern, Colour Aesthetic 199
6.5 Implications of Meaning, Colour Metaphor 204

CHAPTER SEVEN – KAOXA'S SHELTER: LOCUST, LEADING A PATH TO THE STARS

7.1 Locusts, Stars, and Transformation 212
7.2 Locusts in San Ethnography 214
7.3 Kaoxa's Shelter, Three Remaining Locusts 216
7.4 Colour Shift, Recasting the Emergence of 'Light' – Technical Use of Colour 225
7.5 The Relationship Between Motif and Pattern, Colour Aesthetic 228
7.6 Implications of Meaning, Colour Metaphor 231

SECTION II – OVERVIEW 235

CHAPTER EIGHT – FINDINGS AND CONCLUSION

8.1 Future Engagement With Colour Analysis 241

Annexure I. |XAM ORAL LITERATURE COLOUR REFERENCES 243

Annexure II. |XAM COLOUR TERMS 262

Annexure III. KAOXA'S SHELTER – SITE REPORT 265

Polychrome Imagery 277

LIST OF FIGURES

INTRODUCTION

FIG. 1	MYTHIC WOMAN MOTIF	6
FIG. 2	MAP, RESEARCH AREAS	26

CHAPTER TWO – TECHNIQUE, ON THE PATH TO COLOUR VALENCE

FIG. 2.1	BRANDEWYN RIVER LANDSCAPE, SEVILLA TRAIL	46
FIG. 2.2	MAP, CEDERBERG	46
FIG. 2.3	MAP, SEVILLA ROCK ART TRAIL	47
FIG. 2.4	*VEG 'N VLUG* (FIGHT AND FLIGHT), SEVILLA TRAIL	48
FIG. 2.5	*VEG 'N VLUG* (FIGHT AND FLIGHT) REDRAWING, SEVILLA TRAIL	48
FIG. 2.6	POLYCHROME HUMAN FIGURES, SEVILLA TRAIL	49
FIG. 2.7	POLYCHROME HUMAN FIGURES, REDRAWING SEVILLA TRAIL	50
FIG. 2.8	CAVE OF MONSTERS, SEVILLA TRAIL	51
FIG. 2.9	CAVE OF MONSTERS (DETAIL), SEVILLA TRAIL	51
FIG. 2.10	*VEG 'N VLUG* (FIGHT AND FLIGHT), SEVILLA TRAIL	54
FIG. 2.11	COMPOSITE DETAIL OF POWER POINT MOTIF	57
FIG. 2.12	*VEG 'N VLUG* (FIGHT AND FLIGHT) DETAIL, SEVILLA TRAIL	62
FIG. 2.13	*VEG 'N VLUG* (FIGHT AND FLIGHT) DETAIL, SEVILLA TRAIL	64
FIG. 2.14	*VEG 'N VLUG* (FIGHT AND FLIGHT) DETAIL, SEVILLA TRAIL	66
FIG. 2.15	*VEG 'N VLUG* (FIGHT AND FLIGHT) DETAIL, SEVILLA TRAIL	69
FIG. 2.16	POLYCHROME HUMAN FIGURES, SEVILLA TRAIL	71
FIG. 2.17	POLYCHROME HUMAN FIGURES, DETAIL, SEVILLA TRAIL	74
FIG. 2.18	POLYCHROME HUMAN FIGURES, DETAIL, SEVILLA TRAIL	77
FIG. 2.19	POLYCHROME HUMAN FIGURES, DETAIL, SEVILLA TRAIL	77
FIG. 2.20	POLYCHROME HUMAN FIGURES, DETAIL, SEVILLA TRAIL	79
FIG. 2.21	JOSEF ALBERS, *HOMAGE TO THE SQUARE: BROAD CALL*, 1967	80
FIG. 2.22	JOSEF ALBERS, *HOMAGE TO THE SQUARE*, 1969	80
FIG. 2.23	POLYCHROME HUMAN FIGURES, SATURATION COLOUR STUDY	81
FIG. 2.24	POLYCHROME HUMAN FIGURES, SATURATION COLOUR STUDY	81
FIG. 2.25	POWER POINT MOTIF DESIGNATED IN SATURATION COLOUR STUDY	82
FIG. 2.26	MOUNTAINS OF THE WESTERN CAPE	84
FIG. 2.27	CAVE OF MONSTERS, DETAIL, SEVILLA TRAIL	87
FIG. 2.28	MONSTER'S CAVE, SEVILLA TRAIL	87

FIG. 2.29	ROCK WALL FEATURING NATURAL CREVICE	89
FIG. 2.30	ROCK WALL FEATURING NATURAL CREVICE, DETAIL	91
FIG. 2.31	IMAGERY EMERGING FROM ROCK FACE	92
FIG. 2.32	IMAGERY EMERGING FROM ROCK FACE, DETAIL	92
FIG. 2.33	CAVE OF MONSTERS, DETAIL, SEVILLA TRAIL	93

CHAPTER THREE – AESTHETIC COLOUR THEORY

FIG. 3.1	FETCANI GLEN SITE	104
FIG. 3.2	FETCANI GLEN SITE	106
FIG. 3.3	FETCANI GLEN ROCK SHELTER	107
FIG. 3.4	ROCK SHELTER PANEL WITH ‘BLEEDING THREADS’ MOTIF	107
FIG. 3.5	PANEL WITH ‘BLEEDING THREADS’ MOTIF	108
FIG. 3.6	REDRAWING, ITERATIONS OF ‘THREADS OF LIGHT’ MOTIF	110
FIG. 3.7	‘BLEEDING THREADS’ MOTIF, DETAIL, FETCANI GLEN	110
FIG. 3.8	‘BLEEDING THREADS’ MOTIF, DETAIL, FETCANI GLEN	113
FIG. 3.9	TRACING ‘THREADS OF LIGHT’ MOTIF	114
FIG. 3.10	ITERATIONS OF ‘BLEEDING THREADS’ MOTIF AFTER LEWIS-WILLIAMS AND PEARCE	116
FIG. 3.11	‘THREADS OF LIGHT’ AND ‘BLEEDING THREADS’ MOTIF, DETAIL	118
FIG. 3.12	REDRAWING, ANIMAL HAEMORRHAGING AND ‘BLEEDING THREADS’ MOTIF AFTER LEWIS-WILLIAMS AND PEARCE	118
FIG. 3.13	BRIDGET RILEY, *OVER*, 1966	123
FIG. 3.14	‘BLEEDING THREADS’ MOTIF, DETAIL	124
FIG. 3.15	ENLARGEMENT OF CENTRAL ‘BLEEDING THREADS’ MOTIF, DETAIL AND TRACING AFTER LEWIS-WILLIAMS AND PEARCE, DETAIL	125
FIG. 3.16	DETAIL OF PERPENDICULAR AXIS OF ‘THREADS OF LIGHT’ IN RELATIONSHIP TO ‘BLEEDING THREADS’ MOTIF	127
FIG. 3.17	ENLARGEMENT OF CENTRAL AND LEFT ‘BLEEDING THREADS’ MOTIF	128
FIG. 3.18	ENLARGEMENT OF CENTRAL AND LEFT ‘BLEEDING THREADS’ MOTIF	129
FIG. 3.19	‘THREADS OF LIGHT’ MOTIF, DETAIL	131

CHAPTER FOUR – COLOUR AS A METAPHOR

FIG. 4.1	EZELJAGDSPOORT PANEL, TRUE COLOUR ENHANCEMENT BY KEVIN CRAUSE	140
FIG. 4.2	EZELJAGDSPOORT SITE BY HUGO LEGGATT	141

FIG. 4.3 FOUR COPIES OF THE EZELJAGDSPOORT ROCK PAINTING AFTER LEWIS-WILLIAM ET AL. 142
FIG. 4.4 'SWIFT PEOPLE' MOTIF, DETAIL 144
FIG. 4.5 EZELJAGDSPOORT PANEL, QUADRANT DIVISION FOR COLOUR ANALYSIS 145
FIG. 4.6 INDETERMINATE ANTELOPE/ COLOUR 'COUPLING' DEVICE 146
FIG. 4.7 EZELJAGDSPOORT SITE 'SWIFT PEOPLE' GROUP, ENHANCED FALSE COLOUR IMAGING BY KEVIN CRAUSE 147
FIG. 4.8 REPLICATED OVAL-LIKE COMPOSITION 149
FIG. 4.9 FIGURATIVE IMAGES SUPERIMPOSED ON SWATHES OF RED OR YELLOW PIGMENT 150

CHAPTER FIVE – GIRAFFE, GUIDE TO THE SPIRIT WORLD

FIG. 5.1 KAOXA'S SHELTER, GIRAFFE MOTIF 158
FIG. 5.2 KAOXA'S SHELTER, MACHETE GAME FARM 160
FIG. 5.3 DETAIL, LOCATION OF GIRAFFE MOTIF 162
FIG. 5.4 OVERVIEW OF KAOXA'S SHELTER 163
FIG. 5.5 DETAIL KAOXA'S SHELTER OUTCROP 164
FIG. 5.6 TOPOGRAPHICAL LANDSCAPE 167
FIG. 5.7 MAPUNGUBWE NATIONAL PARK 167
FIG. 5.8 DETAIL, GIRAFFE MOTIF 168
FIG. 5.9 DETAIL, GIRAFFE MOTIF 169
FIG. 5.10 GIRAFFE MOTIF, TONAL RED VARIATIONS 171
FIG. 5.11 DETAIL, GIRAFFE MOTIF 172
FIG. 5.12 DETAIL, GIRAFFE MOTIF 174
FIG. 5.13 DETAIL, GIRAFFE MOTIF 174
FIG. 5.14 GIRAFFE MOTIF, IMPRIMATURA EFFECT 175
FIG. 5.15 EXAMPLES OF NATURAL DESIGNS ON THE ROCK FACE 176
FIG. 5.16 GIRAFFE MOTIF VARIANCE 178
FIG. 5.17 DRAWING OF GIRAFFE ENGRAVING, GEORGE STOW 184

CHAPTER SIX – KUDU AND THE COLOUR OF FERTILITY

FIG. 6.1 KAOXA'S SHELTER, KUDU MOTIF 185
FIG. 6.2 OVERVIEW OF KAOXA'S SHELTER 188
FIG. 6.3 KAOXA'S SHELTER FROM SOUTHERN APPROACH 189

FIG. 6.4	INSET DETAIL, KAOXA'S SHELTER	189
FIG. 6.5	DETAIL, KUDU MOTIF	190
FIG. 6.6	DETAIL, KUDU MOTIF	191
FIG. 6.7	DETAIL, KUDU MOTIF	193
FIG. 6.8	DETAIL, KUDU MOTIF	193
FIG. 6.9	KUDU MOTIF, IMPRIMATURA	195
FIG. 6.10	KUDU MOTIF, INTERACTION WITH COLOUR	198
FIG. 6.11	COMPARATIVE IMAGERY, SMOOTHEED SURFACE	198
FIG. 6.12	ANIMAL OF MIXED DESCRIPTION	199
FIG. 6.13	PAIR OF YELLOW KUDU	202
FIG. 6.14	KUDU MOTIF	202
FIG. 6.15	'RAINBOW' MOTIF, WATERCOLOUR REPRODUCTION BY GEORGE STOW	204
FIG. 6.16	SUNSET, MAPUNGUBWE	206
FIG. 6.17	SOLAR HALO	207

CHAPTER SEVEN – LOCUSTS LEADING A PATH TO THE STARS

FIG. 7.1	KAOXA'S SHELTER, LOCUST MOTIF	211
FIG. 7.2	ROCK PANEL, LOCUST MOTIF	212
FIG. 7.3	OVERVIEW OF KAOXA'S SHELTER	216
FIG. 7.4	INSET DETAIL 7.3, KAOXA'S SHELTER	217
FIG. 7.5	INSET DETAIL 7.4, KAOXA'S SHELTER, LOCUSTS	218
FIG. 7.6	OVERVIEW OF KAOXA'S SHELTER SHOWING THE LOCATION OF THE SEVEN MISSING LOCUSTS	219
FIG. 7.7	INSET DETAIL, RED LOCUST	221
FIG. 7.8	INSET DETAIL, RED AND YELLOW LOCUSTS	221
FIG. 7.9	FINE-LINE PAINTING OF VISIBLE LOCUSTS AND DESIGNATION OF THREE MISSING LOCUSTS	223
FIG. 7.10	FINE-LINE PAINTING OF VISIBLE LOCUSTS AND DESIGNATION OF THE TOTAL TEN MISSING LOCUSTS	224
FIG. 7.11	LOCUSTS' OVIPOSITOR WITH COLOUR DESIGNATION	227
FIG. 7.12	LOCUSTS NEAR NATURAL ROCK FACE COLOURING	228
FIG. 7.13	LOCUSTS NEAR NATURAL ROCK FACE COLOURING	228
FIG. 7.14	RED LOCUST, YELLOW ACCENT	230
FIG. 7.15	YELLOW LOCUST, RED ACCENT	230
FIG. 7.16	COMMON MILKWEED LOCUST	233

FIG. 7.17 LOCUST LAYING EGGS 234

CHAPTER EIGHT – CONCLUSION

FIG. 8.1 COMPOSITE OF GIRAFFE, KUDU AND LOCUST MOTIFS 237

ANNEXURE III

FIG. 1A	KAOXA'S SHELTER	265
FIG. 2A	KAOXA'S SHELTER	266
FIG. 3A	DETAIL, KAOXA'S SHELTER	266
FIG. 4A	DETAIL, KAOXA'S SHELTER	267
FIG. 5A	OUTCROP WITH WATER EROSION TRAIL	270
FIG. 6A	OUTCROP WATER CALCITE RUN	270
FIG. 7A	MAPUNGUBWE NATIONAL PARK	271
FIG. 8A	MAPUNGUBWE NATIONAL PARK	271
FIG. 9A	POLYCHROME GIRAFFE MOTIFF	271
FIG.10A	ANIMAL IMAGERY NEAR NATURAL INDENTATIONS ON ROCK FACE	272
FIG. 11A	NATURAL ROCK FEATURES	273
FIG. 12A	KAOXA'S SHELTER, IMAGERY SEQUENCE	274
FIG. 13A	KAOXA'S SHELTER, IMAGERY SEQUENCE	274
FIG. 14 A	KAOXA'S SHELTER, IMAGERY SEQUENCE	275
FIG. 15A	FINE-LINE DEPICTION OF GIRAFFE, WILDEBEEST AND INDETERMINATE ANIMAL	275
FIG. 16A	POLYCHROME IMAGERY OF GIRAFFE, BUCK AND KUDU	277
FIG. 17A	MALE KUDU, MAPUNGUBWE NATIONAL PARK	278
FIG. 18A	LOCUST MOTIF	280
FIG. 19A	LOCUST MOTIF	281
FIG. 20A	LOCUST MOTIF	282
FIG. 21A	KAOXA'S SHELTER, SKETCH PLAN AND DRAWING BY CISKE CNOOPS-STARING AFTER EASTWOOD ET AL.	283
FIG. 22A	*KAOXA'S SHELTER* SCHEMATIC BY ADÉLE PRINS, 2016	284
FIG. 23A	*KAOXA'S SHELTER*, ADÉLE PRINS, 2016	285

ACRONYMS

BM: British Museum (London)
CLB: Central Limpopo Basin
ISAM: Iziko South African Museum (Cape Town)
LSA: Later Stone Age
LSCA: Limpopo-Shashe confluence area
MNP: Mapungubwe National Park (World Heritage Site)
MSA: Middle Stone Age
PIXE: Particle-induced X-ray emissions
RARI: Rock Art Research Institute, University of the Witwatersrand
SAHRA: South African Heritage Resources Agency (Cape Town)
SARADA: South African Rock Art Digital Archive www.sarada.co.za
SSN: SARADA site number
UDP: uKhahlamba-Drakensberg Park (World Heritage Site)

INTRODUCTION

Rock Art and Art History

Rock art in southern Africa is comprised of a broad domain of diverse traditions. These rock art traditions include paintings, engravings or petroglyphs, handprints and finger paintings. The paintings include images typically depicted on rock shelter walls, while engravings and petroglyphs represent carvings into rock surfaces. Handprints are aptly named as hands are painted and placed on the rock surface creating a print, while finger paintings are similarly made through the use of fingers to place paint onto the surface of the rock face. Among different rock art traditions, this research specifically examines the figurative 'fine-line' paintings attributed to the San (Bushman).[1]

Rock paintings in southern Africa represent one of the longest practiced art traditions in the world; however, this has not been an area of sustained study by art historians.[2] This paucity of art historical work on rock art is reflected in general works on African art history (e.g. Vansina 1984), in which rock art is largely absent. Rather, the field of rock art studies has developed and flourished in close association with archaeology. This has been accomplished, in part, through the articulation of a framework that applies ethnographic models to the art (Lewis-Williams 1981a and Blundell et al. 2016 among many other examples). Archaeologists have focused their attention predominately on the iconography of rock art with limited emphasis on, or analysis of, its formal structure (Solomon 1999). And yet, it is precisely these compositional elements that have intrigued art historians who have drawn attention to the multifaceted formal diversity of rock paintings (Ibid.).[3] Analysis to date has examined formal aspects of San rock art which include style, spatial configuration, and palimpsestic attributes (Nettleton 1985; Davis 1985: 5–6, 1990: 271–295, 1996: 77–81, 95–128; Skotnes 1991, 1994; Solomon 1999; Duffey 2002). Art historians have also tended to focus on aesthetic issues. Some scholars, moreover, have explored the relevance of an art historical approach as fundamentally different from, but potentially richly complementary to, the commonly used practices in the discipline of archaeology. Art historians tend to be interested in the

[1] The terms 'San' and 'Bushman' are based in external designations and are far removed from the specific linguistic allocations that the people of these diverse communities across the region use/used to distinguish themselves. These appellations are thus an overarching reduction of cultural diversity and their use here follows academic precedent but rejects the notion of ill intent or subversive characterisation. Linguistic branches are perpetually defined monolithically as a convention of convenience. When singular linguistic specificities are available, they will be employed and referenced accordingly.

[2] This must be understood within the context of the great diversity and antiquity of artistic practices in the region and the relatively low number of research-active art historians compared with regions such as Europe and North America.

[3] Pippa Skotnes (1996: 235) has challenged the widely used phrases 'San rock painting' and 'southern San rock art' and surmised that they are both 'problematic, general and reductionist' in scope and diminish the visual diversity present in the works.

evolution of visual styles and forms in correlation with contextual meaning, while archaeologists examine artefacts for their cultural significance in relation to society more broadly.

Terms and Definitions

Colour is a significant aspect of San rock art. This research places colour at the centre of the study of San rock paintings. It is the central positioning of this aspect of the imagery that can convey colour valence. Potential challenges in assessing colour valence through formal or narrative analysis alone are mitigated through the integration of imagery and ethnography. Colour valence, in the context of this study, relates to the innate significance and potential symbolism of a painted image's most basic formal element, colour. The concept of valence in relation to rock art sits at the junction of art historian Jeremy Tanner's (2006) review of works of art traditionally tied to an expressive–aesthetic and anthropologist Alfred Gell's (1998) notion that art is an artefact with agency.[4] In short, art as a singularly complacent aesthetic is at odds with Gell's position as decisively possessive and intrinsically powerful. Their definitions arise from art historical and anthropological positions respectively and point to the ongoing overlap and tension between the two disciplines. The aim in joining these seemingly paradoxical views is to work in a way that is compatible with the notion of |Xam oral discourse as as an intertextual (Wessels 2010: 140), or intervisual phenomenon, as coined by Wintjes (2012: 21). My aim is to place colour in a referential context. Valency (or valence), furthermore, is a term that is employed throughout this thesis. It derives from the Latin term *valentia*,[5] and denotes importance or significance. As such, colour valence refers to the capacity of colour in both the tangible (optical presence) and intangible (meaning) realms to confer intrinsic and contextual meaning, value and essence.

In association with the notion of colour, valency is the equally important concept of 'meaning'. In an art historical context 'meaning' is often conflated with interpretation. For the purposes of this study, 'meaning' is recognised as essentially polysemic. While an absolute 'meaning' as that intended by the original artists and observers of San rock painting is unattainable, it is possible to extend our current understanding of the art. The valuable ethnographic resources unique to this region can potentially be extrapolated beyond mere identification of subject matter to gain insight into culturally-derived idioms. 'Meaning' here might present itself as an aesthetic dialectic communicated through analysis of the creative process and the contemplation of pure form. A more in-depth look at 'meaning' refrains from using the interpretive process to find a stable meaning that might have existed at the origins of creation.

[4] The context of Tanner's (2006) and Gell's (1998) work, in this instance, stems from within a western perspective emerging from discussions specific to analysis of Greek and Roman art, but Gell generally deals with a greater diversity of artistic traditions.
[5] 'Valency, n.'. OED Online. October 2015. Oxford University Press, www.oed.com/view/Entry/221132 (accessed November 02, 2015).

Meaning will be sought ‘in the space between the reader and text’ (Olivier pers. comm. 2015), or in the context of this study, the observer and art.

‘The Visual as a Site of Meaning’

There are many analytical limitations this study carries. One such limitation is the optical nature in of the act of examining colour in art. Colour, specific to this research, is examined through its visible aspects, which include hue, value and saturation. Yet limitations in regard to colour stability are also recognised and include such factors as weathering and pigment deterioration. The study of the San painting tradition also lacks concrete chronologies, which are significant to the discipline of art history for comparative review of evolving stylistic variance. However, the ethnography provides a literary aesthetic for comparative purposes that we can correlate with the visuality of the paintings.

An integrated formal ethnographic approach establishes a strong basis for analysis. To this point, and as an example of ‘the visual as a site of meaning’ (Skotnes 1994), Anne Solomon equates the formalism of San literature with the formal aspects of the art, where ‘the organization and textuality of myths may be a key to understanding formal attributes of San art’ (1998: 276). She specifically addresses themes related to mortality (Bleek & Lloyd 1911: 56–65) in the narrative, common among San groups, of the ‘Origin of Death’. In the story, a hare faces punishment by the moon when his cries regarding the death of his mother are inconsolable, despite the moon’s reassurance of the veracity of regeneration, which ultimately results in man’s mortality (Solomon 1998: 276). This is one of many examples of the dual theme of death and regeneration that is recurrent in the ethnography and creatively articulated through a circuitous aesthetic (Solomon 1998; cf. Wessels 2010). Solomon maintains that,

> Two prominent features of San oral narrative are the emphasis on cyclical regeneration (at the level of ‘content’) and, similarly, non-linear or circular constructions (at the level of form). These devices are also evident in the art (Solomon 1998: 277).

While the ‘Origin of Death’ story is an example of a literary aesthetic convention expressed in narrative form, Solomon provides the ‘mythic woman’ motif regionally found from northern Zimbabwe to the south-western Cape Province as an iteration of similar themes in visual form. She shows how the motif includes thematic, formal and compositional facets that visually correspond to literary conventions. The pictorial features characterising the ‘mythic woman’ motif include female attributes such as a protruding abdomen possibly denoting pregnancy with emissions emanating from her splayed legs. Additional formal features include a frontal rather than the typical profile view of the face and body, the incorporation of natural holes in the rock face used to convey depth and emphasis on the enlarged torso (Solomon 1998: 282, fig. 15.8,

Gxalingenwa site). The motif also includes variations where a red form is substituted for the genital emissions (279, fig. 15.3, Willcox's Shelter, both examples from the KwaZulu-Natal Drakensberg) (**Fig. 1**).

Solomon argues that, compositionally, the 'mythic woman' motif is often rendered with a limited number of other images and occurs in less densely painted panels. The figures that are present appear to be placed in direct relation to the motif. In one motif, for example, there are falling figures in close proximity to another (Solomon 1995: 38; Chippindale & Taçon 1998: 277). Solomon (1995: 278) suggests a correlation between these falling figures, female initiation rites of passage, and the precarious position of the initiate governed by strict guidelines and rules. This imagery potentially illustrates in visual form the duality of life and death—a theme that commonly emerges in oral narratives. Solomon convincingly shows that the formal elements of the 'mythic woman' motif appear to link thematic conventions of literature and visual conventions of art. As a result, 'theme, form, [and] compositional factors appear to converge' (Solomon 1998: 281).

Solomon's formal analysis seeks aesthetic resonance through the creative structural framework across different modes of expression within San society. Her approach seeks parallels between literary and visual formal elements to ascertain meaning. Her analysis moves beyond the theory of art as a representation of San 'mythology' that was prominent well into the late twentieth century. Solomon's assessment is closely attuned to the visual aspects of the paintings, but there remain more specific material components that warrant further examination, including colour. In this study a focus on colour as an integral aspect of the 'visual form' could bear further insight on the art as a complex mode of creative expression. Solomon (1998) describes colour in respect to the 'mythic woman' motif and its regional variations to discuss its visual elements. She further places emphasis on the coloured aspects of the imagery through explicit compositional reference. For example, Solomon links the colour choice in the 'mythic woman' motif to menstrual blood and amniotic fluid (1995: 138). Yet she does not consider how colour functions formally within the painted panel. This represents a common asymmetry in rock art studies where colour is understood in an iconographic sense but not a pictorial one.

The present study is nonetheless consonant with Solomon's approach and uses properties of San aesthetics as an interpretive foundation. It is here where the opportunity to investigate the potentiality of colour as a component of a discursive mode of design takes place. Colour may be used in painting in ways similar to the colour references found in the oral literature of the San. A deepening of this confluence of visual and literary conventions may further elucidate both forms of San creative expression. There exists an opportunity to examine the use of the colour red in the 'mythic woman' and its literary association with maturation.

Colour is not simply an aesthetic surface quality. It is an essential aspect of rock paintings, integrating technology, compositional structure and symbolism. Because the process of colour application bridges the gap between the making of paintings and their final appearance, an integrated visual approach is most suitable. Insights gained from art historical approaches to painting that pays attention to formal aspects are integrated with insights from archaeological approaches that seek to understand the social context of the painting practice. The approach therefore proceeds through a close visual analysis of the rock paintings *in situ*, enhanced by the assimilation of ethnographic colour concepts. For each example in this study, the history of scholarship is considered, and what colour can bring to the interpretation.

Colour emerges as an expansive domain, and this study points to a number of potential areas of further inquiry. It is acknowledged that, where appropriate, further research would be necessary using other methods (such as microscopic or biochemical analysis) to substantiate some of my ideas on colour. Similarly, a wider comparative study would be required to establish the extent to which the visual devices observed in this study operate at other sites. A close visual analysis is an important part of any suitably colour-sensitive strategy, and the kinds of issues that I have observed could help to formulate questions that biochemical characterisation might help answer. The sourcing of pigments and the regional significance is also a pertinent area for further research.

The present study aims to establish some foundations for such investigations, and goes some way to address the richness and complexity of colour through several site-specific examples. These are the ‘paint patch’ motif of the Sevilla trail, Cederberg, Western Cape, South Africa; the ‘bleeding threads’ motif of the Fetcani Glen panel, Eastern Cape Province, South Africa; the ‘swift people’ motif of Ezeljagdspoort, George District, Western Cape Province, South Africa; and the ‘giraffe’, ‘kudu’ and ‘locust’ motif at Kaoxa’s Shelter, Limpopo Province, South Africa. The study also makes the case for fine visual attention to be paid to the intricate work in rock and paint. The task of colour analysis is undertaken through three interlinked frameworks: technical, aesthetic and metaphorical. An essential component that operates across this interlinked framework is the black-white-red triad. The triad is a formal device that has resonance in African art and serves as a heuristic device for the facilitation of visual analysis.

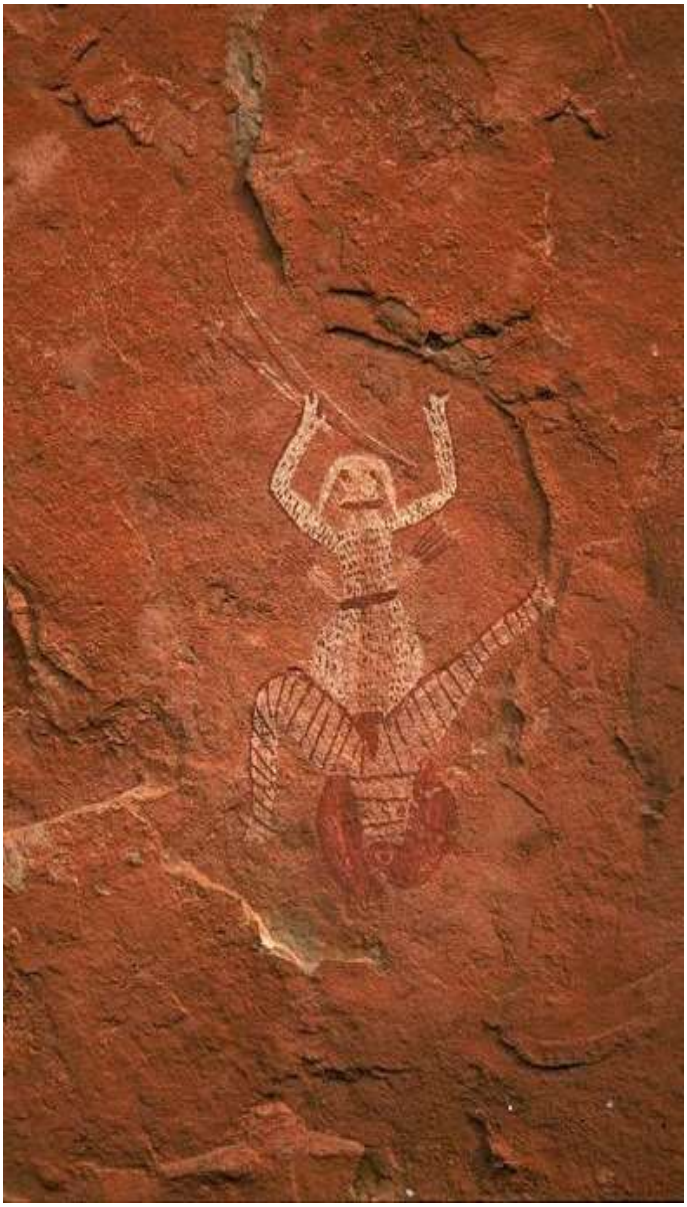


Fig. 1. ‘Mythic woman’ motif, Estcourt Province, KwaZulu-Natal. RARI RSA WIL1 48, 1998-05-28, San, Photographic film, 35mm Slide, Photographed by Dr Benjamin Smith, 1998. © RARI-Rock Art Research Institute, University of the Witwatersrand.

LITERATURE REVIEW

The literature on San rock paintings is extensive. This literature review aims to provide the reader with a background of this present study. It includes a review of San painting traditions and the inherent challenges with its development over time. This section also examines the role colour has played in the study of rock art with respect to copying techniques and pigment analysis. The use of colour references by previous scholars in the ethnography is also examined.

San Painting Tradition and Chronological Challenges

There are perennial challenges to establishing the chronological development of the San painting tradition. At the scale of the subcontinent, the tradition of fine-line painting goes back to at least c. 27,000 years with the Apollo 11 site in Namibia (Wendt 1976; Henshilwood et al. 2011), although examples situated at this time are rare. It has recently been confirmed through radiocarbon dating that a hunter-gatherer painting tradition extends to at least around 6000 years BP in south-eastern Botswana (Bonneau et al. 2017: 331). Research in the uKhahlamba-Drakensberg of South Africa has confirmed through carbon (C14) dating that the painting tradition spans at least 2500–3000 years through to the nineteenth century, with a fine-line shaded polychrome technique emerging 2000 years ago (Mazel & Watchman 1997, 2003; Deacon & Mazel 2010: 7), though these techniques may have been practiced for longer in the region. While no direct dating has been conducted within the Mapungubwe Cultural Landscape (MCL) where the primary site of analysis (Kaoxa's Shelter) is situated, other kinds of archaeological evidence confirm a Later Stone Age hunter-gatherer presence from between 13,000 and 1000 years ago. Hence, the practice of fine-line painting is estimated to have occurred at least several thousand years before CE 1000 (Deacon & Mazel 2010: 15). Despite such a broad chronological framework, more detailed chronologies of San paintings remain a challenge. Preservation of the rock art imagery is also an issue. Rock paintings are inherently fragile because they are exposed to the natural elements. As a result, there is probably much greater antiquity to the practice across the region as suggested through the Apollo 11 site in Namibia.

The Role of Colour in Previous Scholarship

Painted imagery survives primarily from the last few millennia, but other archaeological evidence indicates the meaningful manipulation of coloured substances for a range of purposes. Scholarly interest in the significance of ochre, particularly red hues, extends back to the Middle Stone Age (MSA). Findings of engraved ochre at Blombos Cave near Still Bay in South Africa have provided insights on the development of 'modernity' and 'syntactical' language (Henshilwood & Dubreuil 2009: 48). The recovery of engraved ochre and other important artefacts signals early abstract representations from at least

around 70,000 years ago (d'Errico et al. 2003; Lewis-Williams & Pearce 2004; Mellars 2005; Mithen 2005; Henshilwood & Dubreuil 2009). Explorations of cognitive ability and evidence of its association with aspects of colour communication in the MSA archaeological record will continue to inform understandings of intentionality in the use of red ochre.

Globally, rock art and colour use has been examined by many scholars. In North America, among the Chumash of the Purisemeño (coastal hunter-gatherers), located in the Vandenberg region of the current-day state of California, use of the colour red (haematite) has been explored with respect to the concept of potency (Robinson 2004). The application of specific mineral pigments, particularly red, might be thought of as a performative act and done in connection to environments that represent potency and power (Ibid: 100–102). In Northern Europe, the Stone Age rock art of Pyhänpää, Central Finland, is informed by metaphoric implications of Finnish folk poetry that references the 'blue elk', a potential spirit helper of the shaman (Lahelma 2007: 125–127). Studies in Northern Europe also include a view of rock art practices as 'forms of exchange' and the relevance of the locality of rock art sites near red ochre and other geological features such as quartz and soapstone (Goldhahn 2010). The basis for this analysis in Northern Europe is the Māori's understanding of the *hau*, or 'immaterial spirit or force' (Ibid: 110). In Australia, 'rainbow-like' designs of the Waanyi rock art in red and red-yellow are investigated in relationship to sacred places, beings and groups (Taçon 2008).

There are many studies of more direct relevance to San rock paintings in South Africa by temporal and geographic proximity. Funerary practices during the Later Stone Age would sometimes include ground ochre placed over the burial shaft, as is the case in Melkhoutboom Cave, Zuurberg Mountains, Eastern Cape (Deacon & Deacon 1999: 139–140). In rare cases, such as on the Robberg peninsula near Plettenberg Bay, stones that covered the burial site would be painted or stained in red ochre (Ibid.). Red ochre would also be a crucial component in the preparation of ostrich feathers that were attached to sticks and used to lure springbok from the herd as part of |Xam hunting practices in the nineteenth century (Ibid.: 160). Additionally, new evidence points to its functional use during the Later Stone Age (LSA) as an ingredient in mastics with particular material properties indicating adhesive use (Lombard 2007). These examples are explored further in subsequent chapters and point to the functional, as well as metaphoric, use of colourful substances in a range of material-cultural practices through time and space.

Colour has also played a key role in analysis through the application of the Harris matrix to rock paintings (Loubser 1997; Mguni 1997; Russell 1997, 2000; King 1998; Pearce 2001, 2002; Swart 2004: 13). The Harris matrix, a tool originally used for disentangling stratified archaeological layers based on sediment soils, has been adapted by rock art specialists to analyse the superimposition of imagery (Harris 1975, 1979; Swart 2004). The Harris matrix approach picks up on Harald Pager's and Patricia Vinnicombe's attempts to disentangle the imagery layers through colour distinctions. Although broad generalisations concerning sequence can be made with some certainty, this system remains based primarily in the visible

colour differences between layers. However, the Harris matrix does not attend to the specificity of colour variations within the layers (Pearce 2010: 150). In helping to disentangle the different 'stratigraphic' layers in support of a chronological understanding colour is once again present in the analysis but plays a supporting role.

The literature on the archaeology of colour is limited but integral to expanding our understanding of the importance of colour in the San context. The edited volume *Colouring the Past* aims to provide as an alternative to archaeological processual and scientific positivist frameworks one that is focused on colour (Jones & MacGregor 2002). This volume provides a basis for colour theory and interpretation with specific prehistorical European examples. These examples provide evidence that colour 'operates in every culture as a symbol, a metaphor and as part of an aesthetic system' (Ibid.: Abstract). The function of colour beyond its use in cave paintings is explored in utilitarian objects and textiles of early societies (Gage 1999). The notion that colour should be integral to archaeological analysis supports the present study. Colour also feeds into the wider archaeology of the senses. Recent publications in this area include research encouraging an interpretation based on the sensorial experience in reference to the materiality of the artefact (Hamilakis 2013: 6). A new ontology is proposed for archaeologists to move beyond the five senses to explore the possibility of new sensorial modalities that transcend the complexity of temporality (Hamilakis 2013: 14, 124). This scholarship supports growing interdisciplinary interests in sensorial outputs such as colour. An overview of this literature in the archaeology of the senses and sensual culture studies is provided in *An Archaeology of the Sense*s (Skeates 2010). The sensorial approach has been apparent in the twenty-first century amid a wide range of disciplines, including the humanities and more specifically, art history (Ibid.: 18). The applicability of evolving research methods is explored through a case study in prehistoric Malta and may have potential relevance for recent studies on prehistoric cultures of Europe and Western Asia (Skeates 2010). Interpretations informed by our senses are particularly important to the establishment of colour valence and the future role of visual perceptions as a viable means for interpretation (Day 2012). The varied uses of coloured pigment across time convey continuity with the more recent hunter–gatherer past and may signal aspects of colour valence to examine further.

Copying Techniques

As part of the section of this study that revisits existing site-based analyses (Chapters 2, 3, 4), rock art copies as visual depictions (copies, illustrations, pictorial descriptions) are not simply addenda to the production of knowledge but play a central, constitutive role in the production of knowledge. Copies can thus be examined as proxies for the interpretive approaches they are created to support, and form part of a history of pictorial recording that we can trace back to the eighteenth century in southern Africa (Wintjes 2012). It is not necessary to perform a comprehensive overview of this history of copies, because it has been done elsewhere (Wintjes 2012); however, highlighting particular examples that are interesting for

their colour implications, and particularly as relevant for the sites examined in this study, is important to establish opportunities for greater colour awareness.

The copying techniques used in the study of rock art have been diverse. The earliest preserved recordings date back to the eighteenth century and were predominately journal sketches. Congruent with records of the era, early documentation of rock art sites varied in accuracy and imagery selection. These initial recordings were produced manually by participants in different colonial expeditions, with varying degrees of artistic predilection or draughtsmanship skills.

More attentive studies of the art began to emerge in the nineteenth century. The earliest copy that reflects explicit interest in colour accuracy is attributed to Major Charles Collier Michell at Ezeljagdspoort, near Oudtshoorn, Western Cape (a site included in this study). A colour plate of a cluster of hybrid figures thought at the time to be amphibious was published in 1837, along with imagery from other sites nearby, in the second volume of British officer Sir James Edward Alexander's book, *Excursions in West Africa: And Narrative of a Campaign in Kaffir–land*. We do not know exactly what Michell's original field copies looked like, but the lithography technique used in the publication of this copy enhances the flatness of colour and inherently reinforces its two-dimensionality. Yet the text accompanying the illustration expresses an interest in capturing with accuracy the hue of the original rock painting. Alexander made note of the colour variance of the red hue, which he emphasised the copy replicated accurately, describing it as the 'rust of iron' (Alexander 1837: 315). While aspects of the descriptions of the art were vague or erroneous, the focus on hue accuracy in this illustration is an early example of interest in colour. This is an instance of lithography with a flattening effect, but it also highlights the polychrome palette of the imagery. Additionally, Joseph Millerd Orpen is associated with polychrome reproductions of South African rock art, illustrating several clusters of rock paintings from Basutoland (now Lesotho) and the eastern part of the Cape Colony in three colours (red, black and cream) in his oft-cited 1874 article.

The exploratory sketches of the eighteenth century and lithograph prints of the nineteenth century opened the way to more extensive surveys and documentation of rock art sites in the twentieth century. Established in 1935, the Bureau of Archaeology (the Archaeological Survey from 1944) in Johannesburg was an early government-funded agency that encouraged the documentation of rock art sites. This agency began compiling an archive of copies, and over the decades, increasingly precise methods of tracing were used to contribute to this archive, culminating in the meticulous tracing techniques rock art researchers employ today (Lewis-Williams 1996: 37). Documentation evolved to incorporate the use of new technology with the advent of colour photography in rock art recording (after 1950), which came to be seen as complementary to the linear clarity of tracing, capturing more of the texture, subtle gradation and shades of colour (Ibid.: 38).

The fieldwork of several artistically inclined researchers included exploratory studies that have broached the visual complexity of colour. Clarence van Riet Lowe (1945: 17–18), director of the Archaeological Survey, in collaboration with the artist Walter Battiss, tried to formulate objective colour recording strategies through the standardisation of colour terminology against physical swatches. Some decades later, Patricia Vinnicombe attempted to capture colour accurately through the use of a colour code. She implemented a tracing technique similar to Battiss, translating field copies into subsequent edited iterations, completed offsite, that nonetheless retained pertinent hue variance and textural details (Wintjes 2012: 143). Furthermore, Harald Pager (1971) and Vinnicombe (1976) proposed stylistic trends and sequencing based on classifying the paintings in terms of pictorial complexity with colour as one element of analysis.

David Lewis-Williams is by far the most published author in the field of rock art research in southern Africa. His seminal work *Believing and Seeing* (1981) set the stage for a kind of iconographical interpretation of San rock paintings read in relation to the contents of the Bleek and Lloyd archive, supporting an overarching shamanistic framework of interpretation for the art, and for San society more broadly (e.g. Lewis-Williams 2003, 2004, 2010). Beginning in the 1970s, he was able to extrapolate symbolic aspects of imagery that would replace the once predominant theory of 'depiction of daily life' (Lewis-Williams 1981a: 131).[6] While Lewis-Williams and other scholars have advanced increasingly rich and nuanced interpretations of the art via the shamanistic framework, their work emphasises the figural iconographic content above other aspects of visual significance, alongside the central use of monochrome drawings derived from tracings. This methodology inevitably impacts the way the work is studied. As a result, rock art scholars have focused primarily on figural iconography or subject matter and content, unintentionally minimising the role and significance of colour (Lewis-Williams 2010b: 5–9; Wintjes 2011: 29–31).

Over the latter part of the twentieth century, a gradual standardisation of techniques of painstaking tracing in pencil and redrawing in black ink as the preferred means of reproduction was developed at the Rock Art Research Institute (RARI) at the University of the Witwatersrand, Johannesburg, South Africa.[7] This intricate tracing/redrawing copying technique (often multi-authored) has been the preferred by those involved in the scientific study of rock art in recent decades. The 'RARI convention' discussed by Wintjes (2012) after Leibhammer (2009) and Lewis-Williams (1996) refers to the black outlined imagery that is

[6] Significant research and scholarly investigation by many other experts have produced similar conclusions associated with the connection between figural iconography and San cosmology and spirituality (Dowson 1989; Ouzman 1997; Eastwood & Blundell 1999; Blundell & Eastwood 2001; Hollmann 2004; Lewis-Williams & Pearce 2004, 2009, among many others). In recent years, however, scholarly critique has surfaced around the apparently unidirectional, almost teleological understanding of the history of interpretation, one explanatory framework replacing another, when the nuance of meaning proves more complex (e.g. Solomon 2008, 2013).

[7] For further information on the development of RARI see Lewis-Williams (1996).

abstracted from tracings in the field and often employed by researchers at RARI. As a consequence of the focus on capturing precise outlines enacted in the process of tracing, these archival methods for documenting the rock paintings have had the effect of minimising colour. There is also a distinction to make between the process of recording by tracing, a highly detail-oriented task of capturing minute imagery data, and the subsequent final illustrations. As a result, the imagery, later translated into monochrome diagrams for reproduction, is far removed from its former appearance.

In these black and white redrawings, colour as a formal element has been redacted in the development of this key transcription process. This method involves the meticulous transferal of the rock paintings *in situ* to copies, which can be further examined and analysed away from the site. As a result, this method necessitates long contemplative periods in the actual physical presence of the imagery on the rocks for a close visual analysis. However, the process of producing these images includes the transcribing of the complicated, often, multi-layered imagery as diagrammatic schemas that reproduce the colourful images in black-and-white figures. In an art historical context, authors consciously try to reduce manipulation of aesthetic integrity when reproducing works of art (within the constraints of the secondary medium). For example, a canvas painting would always ideally be reproduced in colour or, at the very least, in a greyscale photographic image, but would never be translated into a diagram made of binary values. Furthermore, San paintings exhibit colour modelling techniques that are not represented through this kind of figural delineation, suggesting that the colours used are not always related to figuration and form but are a material and contextual framework in and of themselves.

Pictorial recording has played a key role in the development of the scientific study of the art in the last four decades. The methodology of tracing and redrawing in a single colour of ink has been driven by scholarly pursuits centred on figural iconographic elements. The tracings and monochrome redrawings they are used to produce, while useful and appropriate for the research interests of scholars who utilize them, have assumed the forefront of a scientific recording methodology, marginalising colour. Of course, the preference for this kind of reproduction needs also to be considered in relation to the economics of printing, the need for clarity in scholarly analyses, and the standard of clarity of scientific illustrations more generally.

Rock art research strategies that have emphasised monochrome redrawings directly correlate with the textual reading of images as scientific diagrams (Wintjes 2012: 161). The process is reductive in several fundamental ways, making the images into cyphers (Nettleton 2015 pers. comm.). As a result, certain kinds of iconographic content such as shapes, contour and spatial configuration of the various motifs are cleaned up and presented in binary code, playing down various pictorial elements that are integral to the overall composition. The ‘messy’ or inconvenient pictorial attributes such as texture, ambiguity, and colour tend to be smoothed over and left out. Relegating colour to a lower register of importance, due to its

complexity, is a fundamental aspect of contemporary research (Wintjes 2012: 169). However, this lack of engagement with colour arises from theoretical and methodological challenges within the discipline rather than a deliberate avoidance of the complexity of colour.

The notion of interpretation as translation might lead the way forward for a polysemic understanding of colour meaning. Further, the element of colour can lead to an enhanced depth of insight because it is such a central part of the original imagery. A recognised tradition in translating San rock art is the transference of the art on paper and developing explanations from those hand-drawn images. Colour is, at times, excluded from rock art copies and the related interpretation or translation. Illustration, as a significant scientific tool, reflects something of the nature of the translation at work in rock art interpretation. A textual bias motivated by a drive for objectivity is apparent in the historical trajectory of rock art studies and runs parallel to some limitations of colour within scholarship.

In the field of rock art studies, a methodology has evolved from the joining of selective copies and extensive and detailed surveys of rock art sites. This method was guided by a concern for 'comprehensiveness'. As a result, the documentation of rock art evolved. Recording practices developed in three distinct modes characterised by Wintjes (2012: 155) as painterly, diagrammatic and photographic. It has been the diagrammatic trend that is preferred for scientific documentation. The diagrammatic technique, sometimes referred to as the 'RARI convention' as noted earlier (Lewis-Williams 1996; Leibhammer 2009: 58; Wintjes 2012: 155), has been widely employed over the past four decades. This involves a labour-intensive process of tracing rock art images onto paper affixed to the rock surface and copied in pencil. These tracings are then processed further, away from the site, as black-and-white schematic designs that can involve the use of a legend or key that denotes the various colours. Wintjes (2012: 21) describes the textuality of this methodology and the resulting 'monotonal illustrations'. Referring to the reproductions, Wintjes argues that they reduce messy, colourful, three-dimensional paintings to figural diagrams that are made up of binary values. Furthermore, 'a legend that mediates colour' (Ibid.: 68) has served to constrict or reduce the creative expressions of the painter's hand to sanitised graphics suggesting symbols to be decoded. The colours of San paintings are fundamental anchoring components of the overall structure. It is within these building blocks of image that we can gain some access to the significance of the painting and what challenges us to grapple with the nuances of the works. Rather than making an attempt at obtaining a one-to-one reference, the meanings, polysemic in nature, at the level of observer and art can begin to transpire. And even though colour has not been the subject of focused study up to now, the traditions in rock art recording and interpretation have nonetheless laid the groundwork for future studies in colour.

The use of digital imaging has had an impact on the recording of rock art. As discussed above, Wintjes (2011: 154) has described major trends of rock art recording as 'painterly', 'diagrammatic', 'photographic'

and ‘digital’. For instance, between the painterly and the diagrammatic there might be the possibility of a more comprehensive approach through the use of scientific conventions combined with potential enhancements through an artist’s painterly approach. The digital age has also included the digitisation of old photographic images and ushered in the ability to create new images with the re-integration of old imagery within the parameters of this new technology. The images in the present study primarily consists of colour photography used to document the sites with some recourse to digital enhancement. Rock paintings are inherently difficult to illustrate in a paper-bound format and the descriptive and interpretive work of this study relies mostly on *in situ* observation of the panels. Colour photography has been used extensively throughout the documentation process of this research. Experimental digital techniques such as true colour and infrared imaging have also been incorporated for enhancement purposes. These new imaging technologies allow for colour manipulation through true colour, also potentially making visible the images underlying other images, or super-positioning, combined with the experimental use of infrared photography. Digital imaging will continue to be paramount to the study of colour in rock art and its use in the future will increase the way in which colour can contribute to interpretive frameworks (Hollmann & Crause 2011: 71, 73).

Pigment Analysis in Rock Art

More recent investigations have begun to address aspects of the art’s materiality, and involve a move towards understanding the role of colour and the significance of pigment as an ingredient in the paint. For the purposes of this study, *pigment* refers to the natural, generally mineral origin from which colours are derived—in other words, the colourant, while *paint* is the substance that carries that colourant and often consists of other additives such as binders like eland blood and animal fat (Jolly 1986: 6; Henshilwood et al. 2011: 219–222). These other ingredients can potentially also influence the hue of the paint, sometimes having the effect of tint or shade, for example.

The literature on the wider analysis of pigments in archaeology is important for its association with the development of rock art pigment analysis. An analysis of north Australian pigments through PIXE (particle-induced X-ray emissions) provides critical provenance information on ochres, known to be commodities of trade to prehistoric Aboriginal Australia (David et al. 1993: 50). Additional evidence suggests inter-relational exchange between ancient peoples through the geochemical results from experimentation on Native American red ochres in North America (Erlandson et al. 1999: 517). The use of PIXE analysis in the study of pigment might help to reconstruct ‘patterns of trade or resource use’ (Ibid: 524). Another method of geochemical analysis of ochres is oxygen-isotope ratios of fine-grained quartz (Smith & Pell 1997). This method was used to detect the provenance and regional variability of ochres in central Australia (Ibid.). A study in western central Australia indicates, through geochemical testing of ochres at the Puritjarra rock shelter, that a regional mine has been in continual use since 32,000 BCE (Smith et al. 1998: 275). An alternative to geochemical analysis of ochres is the use of magnetic

parameters as a non-destructive method applied to ochre samples collected from central Australia (Mooney 2003: 511, 512).

Despite the widespread ochre analysis in Australia, limited studies have been developed in South Africa. An example of promising research in the region is the study of MSA–LSA ochre from Nelson Bay cave, Western Cape Province, South Africa (Bernatchez 2008). This study used both PIXE and XRD (X-ray diffraction) to investigate mineralogical composition (Ibid.: 3). Information regarding the composition of ochres could be useful in determining ochre procurement practices and localities in southern Africa.

The information obtained about pigment procurement and composition could enhance our understanding of colour and reveal more information on materiality and the creative process. The general use of pigment on the rock face might imply association with spiritual potency (Yates & Manhire 1991: 8). Royden Yates and Anthony Manhire (1991) reveal in their examinations of rock art in the Western Cape, examples of paint smearing, repainting of images and smoothed surface monochrome 'palettes'. Interaction through smearing and retouching are potential clues to a kind of mystical communion with imagery (Ibid.: 9). More broadly, the materiality of the imagery appears to play a role that is intimately part of the spiritual practice.

These multifaceted technical aspects of pigment use will support the assessment of colour valence in this study. From investigations on derivative minerals to the commodification of colour in the archaeological record through resource allocation and trade, pigment analysis plays a key role. Furthermore pigment, or coloured material procurement and interactive use are all pertinent areas of investigation that inform this study.

Ethnographic Colour References

There are numerous references to colour in historical sources and ethnographies, but these references have yet to be systematically examined. The three colours that make up the triad were noted in one of the earliest written descriptions of South African rock painting by Carl Haupt while he was on expedition with Ensign August Frederik Beutler in 1752. He stated, 'we saw pictures of wild horses, baboons and people in various positions, painted on the rocks in red, white and black' (Beutler & Hoofd 1896: 68 translated in Wilson 2005: 9 as cited by Wintjes 2012: 25). Furthermore, Joseph Millerd Orpen's article published in the *Cape Monthly Magazine* recounts symbolic references to imagery in the Maloti-Drakensberg by San informant Qing. Although Orpen doesn't speak about colour per se, an integral element of this oral history are Orpen's copies of paintings from the Maloti-Drakensberg, depicted in black, cream and red (McGranaghan, Challis & Lewis-Williams 2013: 152). The imagery, chromo-lithographed for the article, includes therianthropes from Melikane, 'rain animals' at Sehonghong, 'tailed men' at Upper Mangolong and therianthropic figures on the Kraai River (Ibid.: 152, 165). In addition, colour associations are alluded to through aspects of a story regarding the 'big people', or Qobé (deformed figures in the painted

imagery). The story includes a black and white messenger bird, *qeiv* or *tswanafike* in Sesotho, which is sent to alert the San of their approach and rubbed with cannā[8] (Ibid.: 156–7).

Wilhelm Bleek, a German philologist, and his sister-in-law, Lucy Lloyd, established a compilation of the |Xam language between 1870 and 1884 resulting in a phenomenal archival recording of historical, linguistic and literary importance. This archival record was established through the tedious translation work of Bleek and Lloyd through |Xam- and !Kung-speaking informants imprisoned at the Breakwater Prison of Cape Town (Wessels 2010). Their ground-breaking ethnographic work of the late nineteenth century contains references to colour, suggesting the presence of the colour triad, and potentially its casual and symbolic function in the stories recounted by their interlocutors. In one instance, an informant for Bleek and Lloyd mentioned the three colours allocated in the triad of this study in imagery that is integral to motifs of ritual practice and physical attributes: the 'waterbull,' a significant animal in San cosmology, was described by Dia!kwain as depicted with black and white horns and blood that is like water (Bleek & Lloyd 1875: 4074–4077). The Bleek and Lloyd archive, as well as other ethnographic sources such as Orpen, provide insight into colour categories and associations, which can be incorporated into a close visual study of the paintings after evidence of the principles of colour-related communication are evaluated.

Previous site-based analyses that have contributed to rock art interpretation and provide an opportunity in this study to explore ethnographic colour references include the 'paint patch' motif of the Sevilla trail, Cederberg, Western Cape, South Africa, analysed by John Parkington (2003); the 'bleeding threads' motif of the Fetcani Glen panel, Eastern Cape Province, South Africa, analysed by David Lewis-Williams and David Pearce (2009); the 'mermaid group' of Ezeljagdspoort, George District, Western Cape Province, South Africa, analysed by Jeremy Hollmann (2005); and the 'giraffe', 'kudu' and 'locust' motif at Kaoxa's Shelter, Limpopo Province, South Africa (Eastwood 2008).

All of these studies deal with colour in some way, but the scope and nuance understanding of the role that colour plays can be enhanced by paying closer attention to subtle visual details. For example, the 'paint patch' motif of the Sevilla trail, Cederberg, may show signs of depth through colour modelling in some of the depicted imagery. A close visual analysis may point to the use of colour layering to create the semblance of depth, which ethnographically might connect to the documented importance of holes or spaces within the rock wall that denote dimensional travel (Lewis-Williams & Dowson 1990: 12). Furthermore, the Fetcani Glen panel and the nuanced 'bleeding threads' imagery of the more common 'threads of light' motif exhibits distinct changes in the use of colour. Colour specificity, or the use of particular colours in patterned ways within motifs, such as parallel red lines with white dots above and between the lines or single red lines with white strokes instead of dots, is easily recognisable. This variance conveys colour-related departure formally from the more well-known 'threads of light' motif (red

[8] *Mesembryanthemum emarcidum*; a shrub with red bulbs chewed to ward off thirst.

line with white dots used to convey tiered spiritual realms) (Biesele 1993: 72; Keeney 2003; Lewis-Williams 1981; Lewis-Williams et al. 2000). The semantics of the individual imagery at the site, and this motif specifically, were explored by Lewis-Williams and Pearce through a syntactical framework incorporating the rock face, scenic relationships, juxtaposition/conceptual relationships and superpositioning (Lewis-Williams & Pearce 2009: 53–55). While the interplay between semantics and syntax are analysed extensively, the colour valence and colour variance are never noted in the interpretive framework established by Lewis-Williams and Pearce (2009). However, the inclusion of colour analysis uncovers another dimension to stylistic divergence.

The 'swift people' motif at Ezeljagdspoort, George District, Western Cape Province, is another example of rock art interpretation with colour as an auxiliary anecdote to a narrative analysis. Hollmann (2005a) presents extensive research details through black and white copies and redrawings, with no colour details, on 16 sites in the Oudtshoorn area coupled with ethnographic references. His interpretive approach relies heavily on morphology and ethnography (Hollmann 2005a: 32). However, despite direct San testimony regarding imagery at Ezeljagdspoort site 10 by |Xam informant |Han≠kasso about figural iconography centred on 'rain's people' and 'rain sorcerers', colour attributes of the imagery were never mentioned or cross-referenced with colour sources related to rain/water ritual in the Bleek and Lloyd archives (Hollmann 2005a: 24). For example, the Bleek and Lloyd archives include a reference to the rainbow and the potentially categorical reference to the placement of colour within the rainbow and its relationship to the 'breaking of rain' (Bleek & Lloyd 1879: 6600–6604). Furthermore, Wintjes (2014: 700) alludes to the relevance of the colour red that is naturally occurring on the rock face. There are numerous studies on the significance of the colour red in rock art (How 1962; Vinnicombe 1976; Yates & Manhire 1991), and an analysis of this relationship in the compositional tonal key, implicitly apparent in contrast to the otherwise banal sandstone surface, is worth pursuing (Wintjes 2014: 700). In addition, an investigation of the colour valence of red within the ethnography reveals its consistent use in the designation of developmental stages—for instance, through the maturation of stars, bees and locusts (Bleek & Lloyd 1879: stars, 4071–4072 bees, 8752–8753 locusts).

The primary site of this study, Kaoxa's Shelter, also contains an intriguing and complex use of colour in the polychrome 'locust' motif and corresponding ethnographic colour references. While the style of the images potentially belongs to the earliest fine-line tradition, they appear monochromatic at first glance due to the primary use of red and scant use of yellow pigment. The fine-line tradition refers to San paintings of the LSA period. However, close observation reveals them to be bichrome images of yellow and red, potentially polychrome once the distinction between white paint and potential flaking and loss of natural colouring has been established. Eastwood (2008: 92) highlights the uniqueness of this motif in southern African rock art and its significance within San cosmology. It can be noted, the colour significance of the locust motif is never included in the interpretation despite a direct correlation, recorded in the Bleek and Lloyd archives, between colour and stages of development of the locust (Bleek and

Lloyd 1879: 8752–8753). The association of colour with the development of an insect respected by the |Xam may provide insight on known metaphoric associations of animals with San lifestyle, and may indicate a colour designation relating to stages of maturity and transformation.

While the locust motif is unique in San rock art imagery, it is also one of the few images that can be connected to an ethnographic reference to colour. The following passage is a reference to a |Xam story of a girl from the 'early race' of the First Order of Existence who was undergoing puberty rites and created the locusts:

> […] [She] *threw up a scented root* […] *called !huin which became stars; the red* […] *!huin making red stars, the white (or young) !huin making white stars* […] *she also made locusts by throwing into the sky the peel of the !kúïssï (an edible root) which she was eating.* (Bleek & Lloyd 1911: 76; Eastwood & Eastwood 2008: 92)

This excerpt provides an analogous connotation to the creation of the stars which embody two colours of the triad, white and red, as well as the creation of locusts. According to the |Xam, stars in Orion's Belt are named in relation to springbok hunting and are key indicators that the game of the earth imitate the movement of the stars (Riley 2007: 306). Locusts were respected by the |Xam and held to high esteem (Bleek & Lloyd 1935: 8–11; Eastwood & Eastwood 2008: 92). The Bleek and Lloyd archive suggests analogous indicators of potency for the dual creation of the stars and locusts, and the undeniable role of colour in these relationships.

This section on ethnographic colour references points to the presence of historic and archival colour designations of the black-white-red triad. Three specific site-based analyses designated as comparative review for this study were introduced. This evidence showed that enhanced interpretations can be ascertained through a closer examination of colour references. And, finally a brief view of colour specificity at the primary site, Kaoxa's Shelter was presented.

Thesis Statement

Colour valence examined through the black-white-red triad as a relational framework in San rock paintings enhances our knowledge on the role of colour in the indigenous knowledge systems of the San.

METHODOLOGY

This study was carried out in three phases (see chart pp.16–18): Phase I, Documentation of Primary and Comparative Sites; Phase II, Review Archival Material and Develop Aggregate/Lexicon of Ethnographic Colour References (see Annexures); and Phase III, Development of the Findings. Each phase is based on the formalist-ethnographic[9] approach. This approach is a central part of the methodological strategy used to integrate formal approaches with an anthropological lens. The initial phase of this study included close visual examination of the primary site and review of the work of rock art scholars on sites that have nuanced levels of colour differentiation. Phase II consisted of the development of a preliminary aggregate of nineteenth and twentieth century ethnographic colour references through a review of archival materials. The visual analysis and colour references were integrated to propose potential colour concepts which were then applied in Phase III to the primary site imagery.

In phase I, primary research was conducted at Kaoxa's Shelter, Limpopo Province, South Africa. Fieldwork was conducted in June 2014 and March 2016. This research was carried out primarily through a close visual analysis. At this time the use of infrared photography was also tested at Kaoxa's Shelter to study potential underpainting of specific imagery. Situated in the Mapungubwe region of the Limpopo Province, Kaoxa's Shelter and its San hunter–gatherer fine-line paintings of the LSA form an unusually diverse repository of rock paintings, including the only known painted imagery of locusts (Eastwood & Eastwood 2008: 91). In addition to this diversity in subject matter, the rock paintings at Kaoxa's Shelter are particularly colourful and pertinent to the study of colour valence. Moreover, this site has received relatively little scholarly attention and is located in an area that is comparatively under-researched.

Primary research was conducted on rock paintings that demonstrated fine-line imagery and colour and include the following sites: the paint patch motif at the Sevilla trail, Cederberg, Western Cape Province, South Africa; and the 'swift people' motif of Ezeljagdspoort, George District, Western Cape Province, South Africa to gain a comparative perspective. These sites emerged from an engagement with the scholarship because they presented interesting colour issues. The choice of these sites is part of a regional comparative approach but also an investigation of what greater focus on colour can add to existing analyses. Fieldwork on these sites occurred in November 2014 and July 2016 respectively. In order to gain a more comprehensive overview of the regional variance of San painted imagery of the LSA, ancillary research trips were also taken to sites in the KwaZulu-Natal uKhahlamba-Drakensberg, including Main Caves, Giant's Castle and uMhwabane Shelter (eBusingatha Shelter) in July 2014 and sites within the Royal Natal National Park in October 2014. Documentation of the primary research sites and ancillary research trips was undertaken through digital photography and close visual analysis.

[9] The formalist-ethnographic approach is described further in Chapter 1.

The paint patch imagery of the Cederberg and the ‘swift people’ motif at Ezeljagdspoort were both important as a data source and research setting. Both are examples that have been the subject of earlier scholarship with hints towards colour significance and so provide an opportunity to examine what more colour can bring to the analysis. Both also present intrinsically interesting examples of colour use. The paint patch imagery of the Sevilla trail contains a motif that explicitly expresses the process of colour application. The materiality of colour, based on close visual analysis, reveals what appears to be a tangential use of colour. For instance, the colours that are placed on the rock face appear as significant palettes of colour. This connects to the technical analysis of colour pertinent to this study. The ‘swift people’ group of Ezeljagdspoort is an example of a cluster of figures that have direct San testimony. The content of this imagery relates directly to colour concepts regarding rain in the ethnography, which may correspond to formal attributes of the painting. This connects directly to the metaphoric analysis of colour in this research.

Phase II of the research methodology included secondary research on the ‘bleeding threads’ motif of the Fetcani Glen panel, Eastern Cape Province, South Africa. This site study was conducted on records accessible through the South African Rock Art Digital Archive (SARADA). Photo-documentation of this site in the digital archive is extensive. This site contains important examples of fine-line hunter-gatherer polychrome imagery and includes the well-documented ‘threads of light’ motif. This site too has been the subject of earlier research. Of particular interest to the present study is the ethnographic contextualisation of this motif and an aesthetic structure so specific it was thought to be done by a single artist (despite large gaps in its locality). Moreover, also rendered at the site is a variant on this motif, termed ‘bleeding threads’, whose shift in formal structure is signalled by a shift in colour. The stylistic attributes of a potential referent with a variant in the imagery is unique and coincides with the aesthetic analysis of colour outlined for this site study.

In conjunction with the site-based research, an analysis of colour references in San ethnography was also conducted. A review was performed of nineteenth century ethnographic sources such as the Bleek and Lloyd archive housed at the Jagger Library, University of Cape Town, which contains a number of references to colour terminology that can be considered in relationship to San cosmology. Consultation with this archival material took place in July of 2016, and continued through the digital Bleek-Lloyd platform. Furthermore, more modern ethnographic sources were consulted such as the digital Ju|‘hoan San oral history collection of Megan Biesele and Mathias Guenther’s fieldwork findings on the Nharo of western Botswana. These sources provide access to the potential presence of analogical colour communication variance through a ‘Pan San’ cosmology of the indigenous knowledge system. Additionally, documents generated by the South African National Parks Archive in Pretoria on the Rock Art Survey documentation of the Limpopo Province were consulted.

Phase III is an analysis of the findings from both the primary and secondary phases. Site-specific formal devices derived from subsidiary sites centred on the technical, aesthetic and metaphoric use of colour are formulated. In addition, San colour concepts derived from the Bleek and Lloyd archive of |Xam[10] oral narratives and other ethnographic sources were applied to specific examples of fine-line imagery at Kaoxa's Shelter. This type of review will enable the rock art of the Mapungubwe Cultural Landscape (MCL) to play a role in improved regional understandings of the art in terms of overarching patterns of meaning as well as local specificities.

[10] Wilhelm Bleek, a German philologist, and his sister-in-law, Lucy Lloyd, working in Mowbray near Cape Town between 1870 and 1884, established a collection of |Xam- and !Kung-speaking languages and narrative folklore, resulting in an archived collection of unparalleled historical, linguistic and literary importance. This record was created through Bleek and Lloyd's meticulous transcription and translation work in collaboration with |Xam and !Kung-speaking interlocutors who were initially prisoners at the Breakwater Prison in Cape Town (Wessels 2010). The |Xam language is one of many linguistic groups in southern Africa and is the medium of the largest portion of the narratives recorded. This resource can be accessed at http://lloydbleekcollection.cs.uct.ac.za/. In this thesis, citations beginning at BC_151 refer to specific pages in this online collection, which is a digitised version of the Bleek and Lloyd Collection of language and folklore held at the University of Cape Town Libraries' Manuscripts and Archives Department.

RESEARCH METHODS TIMETABLE

Stages	Location	Research Activities	Dates
Phase I Documentation of Primary Site	Mapungubwe National Park, Limpopo Province, northern South Africa	*Photographic documentation of Kaoxa's Shelter site, development of site report, field study 2014 *Photographic documentation of the formal aspects of fine-line imagery at Kaoxa's Shelter, field study 2016 *Infrared photography used to uncover underpainting and missing 'locusts' motif imagery at Kaoxa's Shelter, field study 2016	June 2014 March 2016
Phase I Documentation of Comparative Sites	uKhahlamba-Drakensberg Main Cave, Giant's Castle Royal Natal National Park Cederberg, Western Cape Ezeljagdspoort George District, Western Cape	*Review application of Harris matrix analysis of painting sequences *Research trip to cave painting sites *Fieldwork: photographic documentation and close visual analysis of paint patch motif at Sevilla Art Trail, Cederberg	July 2014 October 2014 November 2014 July 2016

		* Fieldwork: photographic documentation and close visual analysis of the 'swift people' motif at Ezeljagdspoort	
Phase II Review Archival Material	Johannesburg, South Africa	*Review South African Rock Art Digital Archive (SARADA) *Review Rock Art Research Institute's Harald Pager Collection, Johannesburg *Review Rock Art Survey for Mapungubwe, South African National Park Archive, Pretoria *Review ethnographic references on colour significance from Bleek and Lloyd archive, Jagger Library, University of Cape Town (UCT), Cape Town	2013-2019 July 2014 March 2016 July 2016
Phase III Develop Aggregate/ Lexicon of Ethnographic Colour References, see Annexures	Cape Town, South Africa	Develop preliminary Lexicon of Ethnographic References Annexures I, II, III	August-December 2016 2017-2018

THESIS STRUCTURE

This study is organised into two sections. Chapters 1 to 4 constitute Section I of the thesis and provide an integrated discussion on three interlinked aspects of colour which are technical, aesthetic and metaphorical. Section II comprises Chapters 5 to 8 and focuses on colour concepts developed through the analysis in Section I and then applied to the primary case study at Kaoxa's Shelter. Chapter 8 presents the findings and conclusion and is the final chapter of Section II. The black-white-red triad is a relational framework that is used throughout the various chapters.

Section I begins with an Introduction that sets the parameters of the study and continues with Chapter 1, *Art and Translation*, which establishes the formalist-ethnographic approach and the conceptualisation of the triad. It includes an examination of colour and an investigation into the development of meaning and interpretation in a more general and philosophical sense. This point of departure will problematise the premise of translation as a guide for meaning. In Chapter 2, *Technique, on the Path to Colour Valence*, the case study, Sevilla trail, Cederberg, Western Cape (**Fig. 2**), will be used to investigate technical aspects of colour. This will be done by highlighting scholarship that sheds light on the intertwinement of the practical and symbolic treatment of pigment procurement, preparation and application in relationship to rock painting. Moreover, close visual analysis of the technical aspects of painting has been conducted. In addition, new advances in pigment analysis and the potential to pull colour more centrally into the interpretative basis are explored. Chapter 3, *Aesthetic Colour Paradigm*, is the second case study presented from the Fetcani Glen site, Eastern Cape (**Fig. 2**), which examines the aesthetic dimension of colour. Here, investigation on the formal rendering of colour is performed. The variance around a recurrent motif can communicate indicators on colour symbolism. In Chapter 4, *Colour as a Metaphor*, the case study at Ezeljagdspoort, near George in the Western Cape (**Fig. 2**), investigates metaphoric dimensions of colour in relation to colour analogies present in San ethnography.

Section II of the thesis is focused on the primary site, Kaoxa's Shelter (**Fig. 2**). Here, colour valence is analysed through the focus on colour as technique, aesthetic and metaphor. In Chapter 5, *Kaoxa's Shelter: Giraffe, Guide to the Spirit World*, colour concepts obtained in Section I are applied to the polychrome imagery of Kaoxa's Shelter beginning with the giraffe motif. This examination is continued in Chapter 6, *Kaoxa's Shelter: Kudu and Fertility*, explicating the function of colour in reference to the kudu imagery, with a final analysis of colour valence directed at the locust motif in Chapter 7, *Kaoxa's Shelter: Locust, Leading a Path to the Stars*. Chapter 8, *Findings and Conclusion*, discusses the outcomes of the research. A summary of investigations addresses pertinent inquiries posited at the foundation of the hypothesis. The evidence pointing to colour significance and the nature of interpretation as a form of translation all contribute to a deeper understanding of LSA pictorial traditions. The aim of this research is to help build a platform for future studies on colour valence. Indeed, the study of colour in southern

African San rock art could extend our understanding of San creativity in various ways. It could contribute to a chronological framework for future art historical studies as well as to the history of painting more generally.

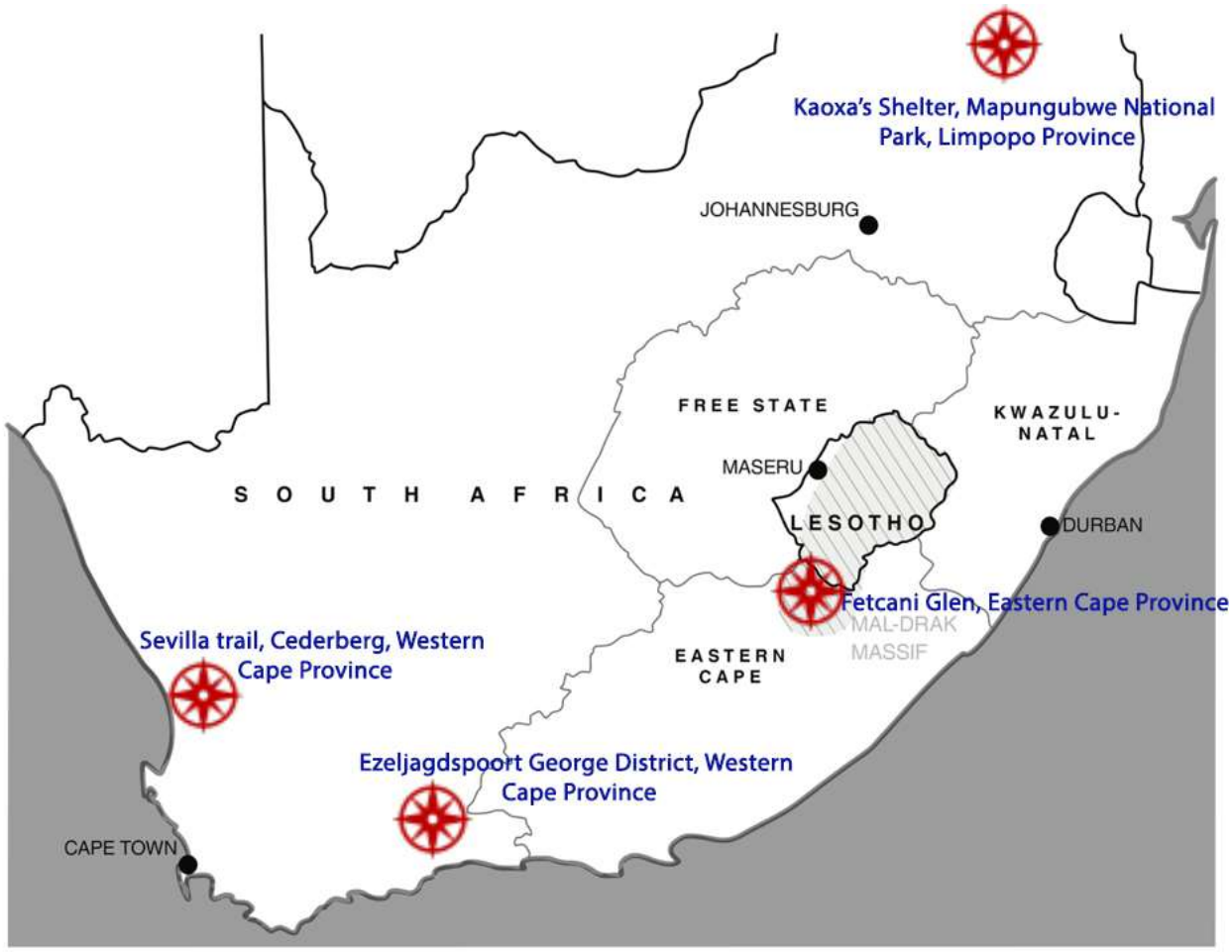


Fig. 2 Map, South Africa with research areas designated, modified original borrowed from Wintjes 2011: 189, Map 1.

CHAPTER ONE – ART AND TRANSLATION

The complexity of colour is a challenge in San rock art research. Its apparent absence from many studies raises questions about interpretation as a form of translation. The essential task of art and translation is the focus of this chapter. The act and process of translation underlies every part of the art analysis in this study. It is directly inspired by the question of colour, because colour as a path for interpretation can also be a tool for translation. Accordingly, we can ask about the extent to which a particular interpretation is an accurate translation, or the extent to which it might be damagingly reductive. While there is no such thing as a perfect, pure or whole translation, a good translation is one that strives to avoid a reduction or loss of complexity, and that does not transform meaning nor render invisible what it is unable to translate. The apparent avoidance of colour in some interpretation has reinforced habits of reading the art in ways that sideline important aspects of its materiality. Placing colour back into the field of analysis helps to reveal visual patterns and opens up a richer and more multimodal way of studying the art.

This study proceeds primarily through the lens of art history. It is the aim of this research to combine formal art historical analysis with relevant aspects of African knowledge systems. It is within an indigenous context that the San paintings are approached as a 'visual expression'. The formal elements of the art that constitute the imagery are of major concern. Of central importance is also the living social context of the art when created which provides a foundation for understanding its formal aspects. This formalist-ethnographic procedure adheres to the fundamental conventions of an art historical approach to understanding San art combined with San ethnography. Formal colour devices and colour concepts that contribute to the study of Later Stone Age (LSA) pictorial traditions and creativity are investigated.

This chapter is comprised of two parts. The first part, titled Art, will discuss 'Formalism' as the theoretical basis for this analysis. The section 'A Formalist-Ethnographic Approach to Rock Art' reviews the use of formalism in the analysis of San rock paintings. In the section 'Colour Perception' physiological and culturally-derived ideas about colour are examined. The triad is arguably a good example of a formalist-ethnographic device, because it combines an art historical concept (colour palette) with a conceptual framework that derives from anthropological sources. The concept of the black-white-red triad is then postulated as a way into the study of colour through formalism. This colour palette could serve as a tool in translating San rock art. The 'Black White Red Triad in Africa' section reveals the extent of the usage of the triad in studying African art in several regions on the African continent.

The second part, Translation, discusses colour and its materiality as a path for interpretation. It begins with 'Colour and Translation' to discuss semiotics and the relevance of the material character of the sign in interdisciplinary interpretive thought. 'Colour in San Ethnography' is discussed referencing the Bleek and Lloyd archive and Joseph Orpen's work. Next, 'Components of Colour Analysis in Translation'

identifies the key components of colour that form the basis for the analysis of colour (technical, aesthetic, and metaphoric). The final category in the second part recognises the challenges of translation discussed throughout the chapter and offers a way forward.

ART

Formalism

Formalism is the study of art using a close analysis of visual elements of design including compositional elements such as colour, line, shape, texture, and other perceptual aspects.This study asserts that principles of formalism can provide a productive framework to investigate essential properties of San rock art imagery. This framework is fundamentally shaped by the ethnography and by what is observable in the art. The integration of formalism and ethnography is discussed in subsequent sections of this chapter.

A Formalist-Ethnographic Approach to Rock Art

In the eighteenth and nineteenth centuries, San paintings were admired for formal elements most closely aligned with western artistic taste (Duffey 2002: 21). In more recent contexts, an art historical approach to African aesthetics is frequently associated with the western artistic movement of Primitivism and its impact on Modernism. A key factor of Primitivism was the exploration and adoption of the supposed ‘essence’ of art forms established by indigenous peoples. In the South African context, visual artists such as Walter Battiss, Erich Mayer and Jacob Hendrik Pierneef appropriated San imagery in a ‘search for an African identity problematically situated in the discourse of Primitivism’ (Nettleton 2011: 151).

Thomas Dowson (2007) also opposes the application of a western art historical framework to the analysis of non-western traditions (e.g. Bahn 2003). He dispels the notion that models based on ‘more tangible aspects of art such as its location, content, techniques, styles and dating’ would enhance our overall understanding of this artistic practice (Dowson 2007: 50, referencing Bahn 2003: 46). Dowson is convinced that Bahn (2003) and others who encourage an analysis of the formal qualities of rock art will keep the indigenous practitioners locked in an ‘unrecoverable past’ (Dowson 2007: 50). Dowson’s reductive treatment of the discipline of art history ironically reinforces a false opposition between formal and contextual, as if the study of the visual is necessarily superficial, ahistorical and decontextualised, rather than able to be rooted in the material and contextual.

While a level of decontextualisation in the formal analysis of San paintings has in part been based on the marginalisation of non-western art within art history more broadly, principles of design and formalism can provide a productive framework for investigating essential properties of San rock art imagery. Although one can never gain a pure ‘insider’ perspective, one can advance circumspectly and attempt to gain some

emic insights by paying close attention to the art itself and the ethnographic sources we have at our disposal. The San discursive aesthetic situates my work as a formalist analysis centred in ethnography.

This research uses a focus on colour as an extension of the formal approach. The idea that the deployment of colour in the paintings and colour associations within San ethnography could reveal something of colour significance or valence is also integral to this approach. This analysis involves exploration of colour-related concepts derived from the ethnography alongside the formal aspects of the rock paintings to reveal visual signifiers that enhance, supplement and complicate themes currently employed in interpretation. The rich references to colour in the Bleek and Lloyd archive and other ethnographic sources coupled with the use of colour in the art can enhance rock art analysis. Attention to this fundamental pictorial aspect adds a significant degree of nuance and visual acuity to the interpretation of this art.

Colour Perception

Colour perception is fundamental to consider in conducting a formalist analysis. The differences in the way we perceive or translate colour in the rock paintings today and the way it was conceptualised by the makers of the art are significant to consider. Colour is a vast and complex domain viewed through shifting physiological and cultural lenses. Perceptual colour universals can to some extent be established, but conceptual ones always remain more problematic (Wierzbicka 2008).

The traditional framing of colour categorisation within language and thought discourse has vacillated between the two prevailing views of universalist and relativist theory (Regier et al. 2010). While the universalist theory, popularised by scholars William Gladstone (1858) and Lazarus Geiger (1880), noted the congruence of the lexical and perceptual evolution of colour, this was counterbalanced by the widely accepted relativist theory of the twentieth century (Regier et al. 2010: 3). Although the notion of cultural relativity dominated modern scholarship, it was challenged by the ground-breaking comparative colour naming survey of Berlin and Kay (1969). This research re-established a shift back towards universalism through the comparative study of colour terms of various languages in relationship to the evolving sequence of colour vocabularies (Kay & McDaniel 1978; Kay et al. 1991; Berlin & Kay 1991: 75). Berlin and Kay included the !Kung San of southern Africa within their classification of colour terminology, with basic colour terms communicated as: *!gow* ‘white, grey’; *žho* ‘black’; *!gã* ‘red, rust’; |*ouj* (?) ‘green, blue, violet’ and *gow* ‘yellow, orange, tan’ (Berlin & Kay 1991: 33, 143). The linguistic development of these colour terms reflects the triad early on, in that basic colour terms such as white and black evolve initially, followed by the term red. Hovers et al. (2003: 493) reiterate the development of colour terms linguistically:

> Cross-cultural linguistic studies support this hypothesis. Most languages have been found to categorize colors according to a single classificatory system which corresponds to a seven-stage evolutionary scheme of color terminology… Monochromatic “black” and “white” are the basic color terms used in any human language. Where more than two color terms exist, these two are universally followed by the term for “red,” with terms for other colors following in a consistent sequence across languages… The properties structuring the universality of color categorization have been traced to and correlated with the neuro-optical processes involved in human trichromatic color vision (e.g., types of retinal receptors for different wavelengths of light, the neural machinery that measures the relativity of photon capture in the different classes of receptors), and the dimensions of human color perception (lightness, hue, and saturation).

Critics of this new universalist research argue the separation of the perception of colour and conceptualisation of colour are not adequately reflected in language, as cultural metaphoric nuances complicate a clear distinction (Wierzbicka 1990: 102–103). The inception and evolution of colour terminology and the relevance of universalist or relativist theories regarding cognition and linguistics is significant in acknowledging the limitations of this study within the terrain of developing research. It also places |Xam colour terms and potential colour concepts challengingly at the intersection of universalist and relativist theories.

As a result, there are also questions around what the notion of colour itself is conceived to be, and the extent to which it can be understood as an isolated, abstract quality in a given context. Matthias Brenzinger (2015) contends that the |Xam have no colour terms at all. This does not mean that colour wasn’t an integral part of the physical and conceptual world of the |Xam, but rather that it was intrinsically linked to other properties and things. He takes into careful account the mutual process of learning that took place between Bleek, Lloyd and their |Xam interlocutors, and challenges of transcription and translation. Brenzinger (2015, unpublished) states:

> The existing term ǀkǟ̄ïnya with its original meaning ‘shining, bright,’ added first YELLOW and with that became a colour term. After Wilhelm Bleek had passed away in 1875, the term extended its meaning in Lloyd’s translations in which ‘yellow, green lightish greenish blues’, ‘light blue’ appear. In 1878, the ‘shining, bright’ meanings had disappeared and BLUE was also dropped. ǀkǟ̄ïnya became the colour term for YELLOW, GREEN and GREEN, also YELLOW. When editing the bushman folklore more than 20 years later, Lucy Lloyd translated ǀkǟ̄ïnya as GREEN, and this meaning was passed on to Dorothea Bleek. Thus, a term for ‘bright, shining’ expanded its meaning to cover the entire range of visual light in ‘shiny, bright, YELLOW, GREEN, light BLUE’ to end as the colour term GREEN.

> In *Specimens of Bushmen Folklore*, Lucy Lloyd's translation of ǀkaɜ̈̃nya as GREEN, does often make no sense at all, as in the following: *... while the young woman () went along, she went to burn buchu; while she was green, while she smelt strongly of the scent of the* ǁ*koui.* (Bleek & Lloyd 1911. P. 197/199)
>
> The obvious meaning of this sentence is that the girl put on perfume giving her an attractive scent and thus causing her to 'shine', thus using the very first translations of the term when it was still not a colour term.

This kind of issue presents potential obstacles for the present investigation of colour categories and associated metaphors as reflected in the archive and the subsequent assumption of colour naming terms. However, as this study will show, if ǀkə̈̀ïnya was not a colour term equatable with the colour 'yellow' as we understand, there may have still been some kind of link between the notion of shining (radiant, luminous) and a concept related to yellow. Yellow and other colour attributes that convey a sense of 'brightness' may have been lost in the translation. Furthermore, the association of colour terms and material attributes, evident in the oral literature, may shed light on the San concepts of colour and related practices of representation and description.

The question of colour as expressed in language (and mediated by translation, as is the case of the |Xam interlocutors) is complicated. It is important to proceed bearing these issues in mind. This study attempts to balance the significance of the materiality of the art while contemplating archive material in conjunction with a close visual analysis.

Andrew Jones and Gavin MacGregor (2002) take a revisionist approach in an edited volume that reviews colour and its role in communicating a cultural message. This is explored through various case studies and the metaphoric power of colour analysed through Bronze Age funerary practices (Jones 2002: 159–174) and the innate attributes of colour revealed through mineralogical analysis (Tairov and Bushmakin 2002: 175–193). Hovers et al. (2003: 493) denote the potential interconnection between the evolution of colour terms, the physiology of colour perception and the validity of a corresponding triadic symbolic colour system:

> The evolution of color terms in human languages thus appears to recapitulate physical and neuropsychological processes of color sensation and perception in the human visual cortex […] By the same token, the worldwide emphasis in symbol systems on the basic color triad goes hand in hand with both the observed linguistic patterns and the neuropsychological primacy of the perception of three colors in the human brain […] It would seem that the neuro-optical infrastructure underlying extant symbolic color systems has existed from the early days of the

> hominins (i.e., humans and their direct ancestors). While this does not necessarily mean that high cognitive faculties actually existed, it renders legitimate the search for symbolic color systems in the record of early prehistory through their direct manifestations in material objects.

The physiological processing of colour is an important part of our visual perception. Historically, it was explored through the scientific theory of fifteenth century Europe. The physiology of colour perception was investigated in relationship to the electromagnetic spectrum conflating wavelengths of reflected light and the visual appearance of pigment hue (Frank 2009: 63–64). Interestingly, according to Newtonian theory, the only 'official' colour in the triad designation of this study is red, as black is the absence of colour while white is the reflection of all colours (Burwick 1986: 11). These issues remain a matter of debate as Hardin and Maffi (1997) explore whether colour language categories reflect systems of colour perception. The complexity of colour as an extension of socio-cultural structures challenges theoretical notions (Young 2018). Through various interdisciplinary case studies, including global indigenous cultures, Young (2018) postulates colour as a function of practical engagement. Further analysis of art historical colour concepts through a focused colour study are incorporated throughout the thesis (Gage 1990).

These investigations into our perception of colour are key to investigations of the conceptual and possibly even social adaptation of colour in San painting, with a possible bearing on our understanding of the role of the triad. In their tackling of the overall challenge of the 'objective practice of data recording and the hermeneutics of interpretation', Noelene Cole contends that Jones and MacGregor missed the opportunity to explore a study dealing explicitly with the 'innate and applied colour' present in rock art (Cole 2005: 76–78). While implications for a universal colour structure can be argued based on the recurrent black-white-red trilogy, its interpretations culturally and aesthetically are varied. Whether a distinction can be clearly made between the significance of the triad and artistic intentionality or the observer's perspective is unclear and ultimately unresolved. The triad thus serves as a heuristic device. The next two sections will discuss the black-white-red triad and its possible relevance for San painting practices.

The Black-White-Red Triad, a Way into the Study of Colour

The black-white-red triad plays the role of an important analytic tool in this study. It is a tripartite configuration of colours. As a relational structure, the triad is useful as a device that engages critical aspects of visuality. It works within a formalistic approach through a close visual analysis of colour to investigate modes of organisation in the visual plane. The concept of the triad as possibly relevant within the San world-view emerges in this research from previous anthropological studies (Turner 1967; Ngubane 1977). Anthropologist Victor Turner has also suggested that the triadic rubric might be useful for the study of the art of the San (Turner 1967: 83). In addition, the Bleek and Lloyd archive contains

pertinent associative meanings with the individual colours that constitute the triad. In this study, the triad is incorporated as a tool in the analysis of the ethnographic sources.

The triad functions as an integral part of a larger pictorial system that specifically addresses the colourful dimensions of pictures. The structure of the triad includes basic units such as different colours of paint, arranged into differently coloured motifs (described as monochrome, bichrome or polychrome in the rock art literature) on rock surfaces with their own colourful features, forming larger colourful compositions. Among the basic units (or building blocks) that make up a picture are particular colours describable as ‘red’, ‘white’ and ‘black’. These colours weren’t necessarily understood, however, to be abstract attributes of the imagery at the time it was painted, but would have always had links to other materials, and been entangled in various ways within a wider pictorial narrative. The triad operates across these different registers.

Investigations into colour are key in the assessment of the conceptual adaptation of colour in San painting. It is important to note that colour preferences linked to traditional arts in Africa correlate with the accessibility of pigment colourants. This points to the idea that colour significance in the symbolic realm is most probably linked to the physical world. The triad consists of colours linked to naturally occurring pigments derived from mineral oxides which were abundantly available to early artists across many contexts.

The Black-White-Red Triad in Africa

Art historians have recognised the black-white-red triad in artistic traditions being utilised throughout the continent of Africa.[11] The black-white-red triad is suggested by art historians as a way of understanding recurring colour palettes in African art.

In north-eastern Africa, the sacred and devotional liturgical arts of Ethiopia often reflect the triad in designs incorporated in crosses, prayer books, healing scrolls and icons. Healing scrolls are traditionally part of a ritual restorative process and integrate curative symbolism with ocular geometric attributes and/or talismanic imagery in the black-white-red triad. These motifs include interlocking geometrics in red and black balanced with the white negative space of the parchment creating visual harmony. While the prayers are depicted in carbon black, the Holy Trinity and headings are delineated in red—a common convention of Ge'ez manuscripts (Kreamer et al. 2007).

The black-white-red triad is also noted by art historians in West Africa. The Bamana (Burkina Faso) Bwa butterfly masks related to the harvest, and Punu (Gabon) Okuyi masks of transcendence incorporate the triadic colour palette (Kreamer & Childs 2014). The stylised planar surface of a Bwa butterfly mask is typically boldly marked by the contrasting hues of the triad, which are thought to reference the 'nature spirit' responsible for familial ties to prosperity. Furthermore, Griaule and Sougez (1950: 58–81) examine the distinct but interlinked colour rubrics of black, white and red in relationship to the Dogon of West Africa and their artistic practices and indigenous knowledge systems.

In Central Africa, the Democratic Republic of Congo, male devotional figures referred to as *nkisi nkondi* serve as vessels for spirits and include a design depicted in the trilogy of black-white-red (Kreamer and Childs 2014). Moreover, the triad is commonly employed in commemorative and burial cloths, widespread across the continent, and extended into the expression of contemporary artists including Okon Akpan Abuje of the Akwa-Ibon state of Nigeria and Felicité Rasoqzanany, a Merina artist from Madagascar (Ibid.).

In southern Africa, the black-white-red triad has been identified as significant in understanding Ndembu ritual practices and Zulu traditional medicine. The British anthropologist Victor Turner's (1967) study of the Ndembu of Zambia emphasised conceptual colour associations and their influence on the symbolic meaning of colour (Yates & Manhire 1991: 9). Turner's cogent analysis of ritual highlights the centrality of colour selection and use. He furthermore proposes that the triad may be essentially universal, or *pan-human*, due to the physiological basis of colour perception. This notion of universality is reliant on his

[11] For further clarification please see, Turner 1967; Blackmun & Schoffeleers 1972; Thompson 1984; Drewal 1997; Mikdadi 2000; Willett 2002; Milbourne & Baltimore Museum of Art 2007; Kahan et al. 2009.

dissection of the ‘polysemic, condensed, and polar’ qualities of ritual symbols (Turner 1967; Peacock 1968: 984). Furthermore, Turner contends that the recurrent and central use of symbols can imply integral social values, with the centrality of the symbol/colour combination contributing to the efficacy of the rite or ritual (Turner 1967). In Zulu traditional medicine, the black-white-red triad appears to have significance. Of interest is Harriet Ngubane’s (1977) discussion of Zulu belief that disease is the imbalance of well-being of the individual and the family, which may be surrounded by malevolent forces. According to Landy (1978: 7), ‘the mystical components of Nyuswa treatment can be understood within the attribution of the symbolic significance of color not only in healing but in all elements of the cosmos. The basic colors are black, red, and white; in treatment processes and in all rituals they are used in rigid sequence.’ Ngubane’s (1977) work discusses evil spirit possession and colour symbolism in the context of classification of medical compounds, herbal and animal in origin, into black, red, and white medicines. Her work provides insight on metaphysical use of the triad in relation to healing specific to Zulu practices.

The use of the black-white-red triad in African art has been ubiquitous. Artistic relevance of the black-white-red triad is evident in various regions of the African continent from North to South and East to West. This provides support for an investigation into triadic use in the rock paintings of the San of southern Africa.

The Black-White-Red Triad in the San Context

Several studies on San rock art allude to the importance of the triad. Yates and Manhire (1991: 8, 9) explore pigment potency through their analysis of rock paintings in the south-western Cape. In order to substantiate the importance of the materiality of the pigment, they highlight the corresponding significance of colour. In this respect, they point to colour classificatory associations. They make a plausible correlation in a socio-cultural context to anthropologist Megan Biesele’s (1975) work with the Kalahari San and their colour designation of certain animals. Specifically, the Ju|’hoan classified animals according to their ‘meat’; as such, red, white and black are purposefully employed to convey categorical emphasis (Ibid.).

In an attempt to establish a basis from which to extrapolate potential colour concepts from the ethnography I examined the data available in the Bleek-Lloyd archive was examined. This investigation sought to pull out mentions of colour, and categorise them in terms of their relationships to other components of the narrative. In this way this study seeks to avoid treating colours as abstract attributes, and rather to develop a cluster of associations for each colour that feed into a relational structure for the colours all together. In order to accomplish this goal, the digital archive was initially searched based on simple colour terms that form the basis of what we consider in our modern framework the foundation of

colour theory (for example red, black, white). In the first instance, these colour terms appear to denote hue, with a few terms having further emphasis. Some colour terms were indicated for two different hues, and specific terms were used to convey adjectival associations such as shining or glittering. In order to assess colour associations present in the oral literature the archive was examined further for thematic patterns and analogical resonance. The Bleek-Lloyd digital archive is designated by fifteen searchable categories which include hundreds of narratives and range in topic from Artefact and Dress to Transformation to Celestial Bodies and Aeroscopy. Colour terms would present in these various categories intertextually as singular expressions of description or terms of maturation or categorical distinction. My investigation resulted in an integration of information from the search of singular colour terms and specific narratives that include the black-white-red triad of this study to reveal potential analogical meaning and colour significance.

A summary of |Xam colour terms and categorical uses is presented in this study from the Bleek and Lloyd archive. This summary demonstrates particular parallels between these descriptive colour terms and cycles present in the natural world.[12] An example of a triad of black, white and red as a useful relational framework in the San context is shown in the !Kun story of |Xue. |Xue searches for his father and deflects the attention of his community through his transformative abilities. Over the course of |Xue's travels, he reinvents himself as leaves, fire, fruit, butterflies, and a child. During this metamorphic process, all three colours of the black-white-red triad appear in the descriptions of his appearance. At one point, |Xue is *red* like the sun and at another point, he is described as a *black* butterfly. The story continues with the partial restoration of his sight through his mother's *white* milk.[13] Ultimately, the story of |Xue deals with many of the San values stated above and incorporates the triad. The story of |Xue seen as using transformative narrative elements related to the triad (and the Ju|'hoan use of the triad in 'meat' animal classifications) is further supported by other |Xam narratives. The transformative use of the triad in the 'Origin of the Moon'[14] and the cosmological use of the triad in 'The Dawn's Heart'[15] are also examples of the incorporation of black-white-red with pertinent literary resonance.

Included in Annexure I are the colour-related extracts from the Bleek and Lloyd archive. In summary, these references point to the association of the colour black with mysticism, darkness, stone, the male star and the gall bladder. For example, darkness (or black) is a reference made to the eland's gall-bladder in the 'Origin of the Moon', possibly linking or even conflating bile, darkness and the colour black within an overarching theme of transformation. The colour white refers to milk, stars, illumination, day and the sun's light and is often related to regeneration, as with |Xue, or radiance. The colour red is often affiliated with blood, earth/dust, stars, the female star, the sun, the sun's light (night), night, the moon, and ripeness.

[12] Annexures I and II
[13] BC_151_A2_1_116 9602–9607, 9605v–9607v, 9609v–9616v; Annexure I
[14] LII.-24. 482–486; BII. 379–390, 421–428, III. 429–433; Annexure I
[15] LL.II.2.292–293, LL.II.15–16.1432–1499, 1500–1548; Annexure I

Often, red has conceptual ties to |Xam references to maturation. These colour references in the oral history are important for exploring the cultural context of colour use and relevance to the analysis of San paintings. The black-white-red triad may denote transformation and the unifying theme of cosmic relation in that black, white and red are all used to describe stars.

However, it can be noted that within the triadic framework, the binary use of colour is also present, for example black and red refer to male (black) and female (red) stars: ‘A female Star who is red marries a male Star who is also red’ (LL.I.291–294). The colours black and white are represented by darkness (black) and illumination (white): ‘creating a darkness’ (LII.-24. 482–486), ‘The Sun illuminates it, making it white’ (BC151 E4.2.1). Red and white are designated as the sun’s light, night (red) and sun’s light, day (white): ‘the sun's light used to be white in the day and red at night, like fire. When the sun has set, it again becomes red’ (LL.II.35.3193v). Although a colour such as yellow falls outside of the triadic palette in its narrow definition, it is a colour that is important to this study, particularly due to its relationship to the colour red and possibly white.

Through an investigation of the relevance of the triad in the San context, the archive has been shown to contain many colour references and relationships. The black-white-red triad may be viewed as a comprehensive system associated with key social values discernible within San communities. Family continuity, fertility, longevity, survival, maturation of boy-man and girl-woman, and respect for the natural environment are all important values within San communities that might also be reflected through colour relationships. The site-specific studies in the subsequent chapters provide an opportunity to deepen reflection on the role of individual colours and combinations of colours in San rock painting, as well as the usefulness of the triad as a relational structure, with reference to the ethnographic and archival sources.

TRANSLATION

Colour and Translation

Colour is a key consideration in interpreting San art. The analysis must always balance the extent to which a particular interpretation or translation is accurate or reductive. The use of the term translation serves as an equivalent in the literal and analogical sense for interpretation. Translation is a useful concept to convey polysemic meaning available through interpretive variance. A good translation is one that strives to avoid a reduction or loss of complexity. Colour enhances our understanding of the art. Colour is intrinsic to the imagery and should be included in any interpretation to avoid a loss of complexity.

The field of semiotics is useful for understanding the process of translating 'signs' or codes conveyed through colour communication. The modern theory of semiotics was developed by two key scholars, Swiss linguist Ferdinand de Saussure (1857–1913) and American philosopher Charles Sanders Peirce (1839–1914) (De Saussure 2011; Peirce 1935, 1998; De Alleva 2005: 29–30). De Saussure focuses on the linguistic interpretation of signs, however, Peirce's philosophical approach has been particularly useful for the visual field. Preucel (2010: 90) explains, 'A Peircian semiotic […] does not privilege language as the model for semiotics, rather it offers a more general model which incorporates language, social practices, and material culture. Peirce defines semiotics as the science devoted to the essential nature and fundamental varieties of possible semiosis where semiosis is understood as the nature of signs' (Peirce Edition Project 1998: 413). Peirce asserts that icons, indexes and symbols are different types of signs. Preucel explains:

> Peirce divides the sign-object relation into icons, indexes, and symbols. Icons are signs that refer to an object by virtue of its characteristics. They are "mimetic," an example being a diagram or a painting. An index is a sign that denotes its object by being affected or modified by that object. It can be thought of as a pointer or indicator—for example, a weathervane is an index that indicates the direction of the wind. A symbol is a sign that obtains its character by virtue of some law, usually an association of general ideas. In this case, meaning is the result of convention. For example, a flag has no inherent meaning, yet it is commonly taken as a symbol of a country. All indexes involve icons and all symbols are indexical because they act through tokens or replicas. (Preucel 2010: 56)

Extrapolating from Peirce's thesis, a painting would be considered an icon in the sign-object relation that would mimic the artist's conception. Every aspect of a sign, according to Peirce, is interconnected (Preucel 2010). The index is a sign that is recognised based on its capacity to be modified by the object. San paintings can be understood as icons and colour as an index as it is a sign modified by the painting (object). The 'material meaning' could potentially reside in the index-as-sign relationship. The materiality (pigmented colour) could be an indexical sign that derives meaning through its relation to the object (image). We can then deconstruct the colour characteristics of the paintings as a significant part of its 'material meaning':

> Yet another topic in pragmatic anthropology is material meanings. Significantly, pragmatic studies draw upon the sign mode of indexicality. Unlike the spoken word, material culture possesses attributes, such as durability and scarceness, that can be manipulated for social advantage. (Preucel 2010: 89)

It is clear that 'Peirce's notion of indexicality lies at the heart of linguistic anthropology' (Preucel 2010: 89), but it may also be useful for the conceptualisation of the translation of rock paintings. Within the domain of non-verbal material culture that 'sacredness' or notions of cultural respect can be conveyed through the visual image.

There is a growing body of literature in art history, archaeology and anthropology which argues against a purely semiotic account (in a narrow linguistic sense) of art and places more emphasis on the importance of materials. In art history, there are important studies on the materiality of the art object as an inherent carrier of meaning (Anderson et al. 2014). The turn away from semiotic readings to materiality also draws attention to process. Bolt (2004) emphasises the creative practice of a work of art:

> The focus on artworks, rather than practice, has produced a gap in our understanding of the work of art as a process. This gap is evident in formal and semiotic analyses of art work […] I can bring formal and semiotic models together and demonstrate how the formal and semiotic elements operate to strengthen coherence in a work. (Bolt 2004: 5–6)

A theory based on the 'performative logic of practice' (Bolt 2004: 8, 105) moves beyond the final artwork to focus on the creative practice. In conjunction with this scholarship is an emerging paradigm in the creative arts which brings to the fore the concept of 'new materialism' centred in creative media (Barrett & Bolt 2013).

In archaeology, alternative ontologies are being considered for a more comprehensive approach to materiality and more mercurial indigenous concepts (Alberti & Bray 2009). Various perspectives on interpretive and analytical platforms devised to accommodate this new paradigm centred in materiality are provided in *Animating Archaeology: of subjects, objects and alternative ontologies* (Ibid.). The repositioning of 'a material symbol […] as inherently agentive' (Jones et al. 2013: 22) removes the notion of singular meaning and reimagines a potentially inherent state or essence as the origin for establishing meaning. Recent global case studies examine rock art, beadwork, figurines, funerary works among others through the material character of art objects (Jones & Cochrane 2018). Analyses of material-based practices range from gesture and improvisation to assembly and deconstruction (Ibid.: 7). Most important for the purpose of this study is the analysis and markers of content and meaning based on colour variance. Semiotics can be useful in this approach:

> Despite the lack of a strict visual grammar, semiotic approaches can nonetheless be useful as a way of bypassing the tyranny of meaning and representation of imagery. Leroi-Gourhan's (1967) work with Palaeolithic cave art can be inspiring here as a study of abstract signs rather than preconceived ideas about the depictions of animals and humans. From such a perspective it may be easier to distinguish patterns and relations that are otherwise masked by classification and typology. (cf. Fahlander 2012)

Phenomenological and metaphorical perspectives can reveal interesting relationships between the pictorial and the local landscape. Back Danielsson et al. (2012: 5) explain:

> Imagery is material in the sense that it is made of matter by matter which forms integrated elements of the images as materiality (cf. Alberti 2012) […] The power of images not only lies in what it might represent or symbolise, but also in the way they interfere and are integrated into social life.

There are various notions of the image as an agent of the past and present. This is articulated by Alberti (2012) in relation to the perspectivism of Argentinian ceramic vessels, and through vitalism as examined by Back Danielsson et al. (2012). The material liminality of 19th century Australian petroglyphs is investigated by Clarke (2012). Other examples of the agentive nature of the image which resonates with this study include materiality and production processes of rock art (Fahlander 2012), and the relationship between image meaning and pictorial content in Stone Age rock art (Sjöstrand 2012). Metaphors and sensorial perceptions which are examined in Romanian art by Gheorghiu (2012) are also integral to the more ephemeral aspects of materiality.

The literature in anthropology on concepts related to materiality is limited but critical. An 'artefact-oriented anthropology' has been proposed as a way of interacting with an object for its inherent qualities rather than a representation or symbolic form of something else. Henare et al. (2007: 4) emphasise:

> […] rather than providing data to which theory is applied, revealing the strengths and flaws of an existing theoretical model, the things encountered in the fieldwork are allowed to dictate the terms of their own analysis […]

Ingold (2013: 8) aims to 'link art and anthropology through the correspondence of their *practices*, rather than in terms of their objects'. He examines this possibility through the medium of drawing, yet refers to visual expressions more generally:

> Pictures are always comprised of signs that can be read. These signs may be disordered, or even layered over one another so as to make them virtually indistinguishable. But they are necessarily *there*, else the image would make no sense. (Ingold 2013: 129, 130)

Translation of colour is related to signs within pictures that can convey meaning. Colour can then be seen as one component or sign within the imagery to hold meaning. The materiality of the art then begins to 'allow knowledge to grow from the inside of being', allowing researchers 'to correspond with it in its own movement of growth or becoming' (Ingold 2013: 8). According to Ingold (2013), the process of creating becomes an additional origin of meaning rather than meaning solely being found in the final artefact or artwork. It is clear that an interdisciplinary shift in acknowledging the materiality of art, and the material as a site of meaning, is increasingly important. Examples from art historical, archaeological and

anthropological studies have all shown a connection between the translatable material component of art and its relationship to the indexical sign of semiotics. Semiotics as a framework for analysis and the concept of materiality can be useful in art translation and understanding San art in particular.

Colour in San Ethnography

There are two important textual sources that form the nineteenth-century ethnographic cornerstone of a large portion of rock art interpretation, the Bleek and Lloyd archive and Joseph Orpen's[16] 1874 article. However, these important resources have not been examined for what they indicate about colour. The Bleek and Lloyd archive has been widely used in iconographic interpretations of San art. In the collection are a number of references to colour terminology and its relationship to the San world-view. In addition, Joseph Orpen's article has indications of colour symbolism that allow an investigation into potential metaphoric applications of colour relevant to this study.

'Pan-San' is a term coined to capture the continuity of certain San cultural traditions and ideological codes despite regional, temporal and spatial variance (Lewis-Williams 1984). In this study, modern ethnographic sources were explored such as the Ju|'hoan San oral history collection of Megan Biesele (1976), and folklorist Mathias Guenther's (1986) fieldwork findings on the Nharo of western Botswana. These sources allowed for further insight into San regional commonalities, variations and differences. These sources provide access to a critical understanding of the presence of a complex structure of colour communication within a 'pan-San' world-view. The concept of a 'pan-San' worldview correlates with the quest for an overarching framework for the understanding of aesthetic patterns.

A major challenge is generalising across many San groups that are diverse linguistically and otherwise. There is the quandary of applying ethnographic accounts gathered in one context to another to gain an understanding of a 'pan-San' ethos. This study of selected South African sites will focus on the ethnography of the San or |Xam in the selected areas and considers variation and continuity.

Components of Colour Analysis in Translation

A three-tiered system based on the technical, aesthetic and metaphoric components of colour is postulated as part of the formalist-ethnographic analysis undertaken in this study. These distinctions are used here as heuristic devices and there is no strict separation between them. It is operationalised in this

[16]Joseph Orpen's article in the *Cape Monthly Magazine* (1874) is one of the primary nineteenth-century sources. While it has been substantially edited and mediated through translation, and is not as extensive as the Bleek and Lloyd archive, it remains a pertinent, short and distilled published text considered to provide a key to understanding San art and cosmology.

thesis as an attempt to grapple with colour as a fundamental part of the fullness and complexity of what is visible in the art.

The technical realm refers to the procurement and preparation of the pigment and other ingredients, the preparation of the paint, and the placement of the paint onto the rock surface in such a way that it produces an image that is visible and 'readable' to the viewer. However, it is in the process of forming the imagery on the rock surface that the technical realm already begins to merge into the aesthetic realm. The aesthetic aspect of colour in this study includes the precision of technique through a motif-variant relationship as well as potential metaphoric attributes. The metaphoric dimension arguably transforms technical and aesthetic properties of the imagery too, also extending into non-visual areas of reference such as social consensus. Insight into metaphor is similarly regarded in both art historical and archaeological discourse, and has laid the foundations for a compelling investigation into the iconography of this painting tradition.

It is also in light of the numinous nature of rock art imagery that an entry through a pictorial system for interpretation or translation is proposed. Within the technical, aesthetic and metaphoric areas, colour forms a fundamental building block of a visual vocabulary. This visual vocabulary crosses the different levels or modes of the structure. Beyond the technical and into the aesthetic and metaphoric realms, colour, line and texture remain primary attributes of motif-concepts which are the basis of a compositional whole. As a result, this interlinked system enables each division building upon the next for a fuller attempt at interpretation. In essence, it can be useful to deconstruct a pictorial system into its constitutive parts to understand something of how those parts work together, striving finally to return to the whole without which the isolated parts are not coherent. And similarly, these components in a pictorial system will neither cohere nor make sense if one is missing—in the case of this research, colour.

In regard to the applicability of the triad and its capacity to act as conceptual and relational framework, it is well apportioned to operate within the three-tiered structure adopted here to assessing colour valence. It is a relational framework for understanding the meaning of colours, in their specificity and relation to one another, at the different levels in which colour operates technically, aesthetically and metaphorically. Although aspects of these separate registers do feature in existing studies, the registers (or parts thereof) are often approached separately and sometimes disassembled, despite their fundamental interconnectedness in relation to the creative complexity and visual integrity of the art. The next chapter will delve into the technical exploration of colour.

SUMMARY

This chapter has discussed a way of translating San art through a formalist-ethnographic analysis. Secondly, it posits that the materiality of colour is useful for deconstructing the complexity of colour. Colour is important and cannot be omitted from San art translation. Thirdly, the black-white-red triad has been identified as an exploratory framework to aid in the translation of African art in some regions throughout the continent, and it appears to also be relevant for San rock art. Finally, the components of colour—technical, aesthetic, and metaphoric—serve as interlinked modes of analysis within an overarching framework guided by the triad.

This study acknowledges the potential difficulty in establishing a definitive relationship between a certain colour on the rock face and its meaning. The challenge of claiming direct correspondence of a colour could be due to the fluctuating instability of colour on the rock face. This is a factor that I have considered in the close visual analysis is utilised in the field studies.

This thesis will explore the utility of the triad as it relates to San art. The following chapters in Section I will examine the technical dimension of colour in the paint patch motif at the Sevilla trail; the aesthetic dimension of colour in the ‘bleeding threads motif’ at the site in Fetcani Glen; and the metaphoric dimension of colour in the ‘swift people motif’ at Ezeljagdspoort.

CHAPTER TWO – TECHNIQUE, ON THE PATH TO COLOUR VALENCE

> Painting was […] a ritual act that employed two principal elements, each with its own range of significance: paint and rock face. These apparently technical elements cannot be separated from meaning.
>
> David Lewis-Williams (2002: 114)
>
> *A Cosmos in Stone: Interpreting Religion and Society Through Rock Art*

The role of colour as a technical tool is explored through an examination of key imagery located at the Sevilla trail sites (Cederberg mountains, Western Cape, South Africa). This parameter, like the others, is heuristic and there is not necessarily a separation between the technical and other aspects of the art. Insights gained from an examination of technique are reported. I undertake an analysis of colour that progresses from the analogical to the symbolic through the various chapters.

This analysis of colour is situated within the context of previous rock art scholarship and incorporates previous findings. Colour and its function as a fundamental element of technique in artistic and ritual practice provides a foundation for the assessment of the convention of colour within the San painting tradition. Appropriate avenues of art historical engagement are incorporated with relevant rock art studies on paint[17] to explore colour as a fundamental basis of interpretation.

There are problems associated with optical centrism, factors such as differential lighting and weathering and this points to the need to continually look beyond the visual. The observations in this study are based on close visual analysis of what can be seen. The assumption is that the paint was meaningfully placed in a configuration that approximates what one can still observe today. Colours may have fundamentally changed with the passing of time. This can entail fading, darkening, chipping away entirely or disappearance of certain colours of paint. Close visual attention is paid to indications of change to the paint and unpainted rock surface as a result of lichen growth, water damage, chipping and exfoliation. It should be noted that preservation conditions are very specific and will vary across a single rock surface. Colour may also entail certain shifts in hue which is something one must always bear in mind.

[17] Paint and pigment are used interchangeably in rock art research yet pigment is generally defined as a coloured substance that is typically mixed with binders to make a paint. The hue of the resultant paint can vary in colour from the original pigment, influenced in part by additives and binders, but usually retains a degree of tonal similarity to the pigment source.

Yet, the colourfulness of the imagery is something that seems to have been preserved, even if its hues may be greatly altered. For the purposes of analysis, it is assumed that the colour yellow as it appears today, for example, was a shade of yellow in the past. This assumption is speculative in part, but also based on scientific evidence that in some cases the micro environment of the paintings may have contributed to the development of a whewellite layer (also associated with weathering) which may have served as a protective shield (Tournié et al. 2011: 405) and perhaps contributed to colour retention. This too is an area for further research. For now, I propose that a panel can be examined for its apparent colour-specific properties, differences and contrasts in relation to the other colours of paint in proximity, while remaining attentive to possible changes over time. The study proceeds with the analysis on this basis.

The cluster of sites on the Sevilla trail in the Cederberg lends itself to a technical study due to the repeated occurrence of a paint patch motif which is rendered as monochrome imagery. These motifs can be described as 'gestural' (Hollmann 2013: 154–155) or non-representational (Hollmann 2014; 2017: 52–60), in that they are not directly identifiable as obviously representational but might signify 'strong things' or potency (Bleek 1933: 303).[18] The lack of readily identifiable figural expression in the paint patch motif has influenced its interpretation.

The paint patch motif (Hampson 2013: 367) has been commonly associated with the Western Cape, but has also been noted in Mpumalanga Province, south-west of the Kruger National Park and within the region of Koaxa's Shelter, the primary site of this study in Limpopo Province. This motif seems to be unique in the southern African region. It should be noted that the paint patch motif in different contexts will have differing meanings. Furthermore, there are challenges surrounding its identification might be due to the ambiguity of the motif, which lacks the recognisability of figurative depictions. Yet the study of non-representational elements in the rock art imagery across the region (Eastwood 2008; Hollmann 2014; 2017: 52–60; Mguni 2015) has made a significant contribution to our understanding of this art.

The paint patch motifs have been selected for the purposes of the present study because they appear to embody the use of paint (or colour) for its own sake. Thus, they are arguably more directly engaged with the materiality of paint as distinguished from those motifs that are figuratively elaborated and draw in complex associations. This materiality is a critical aspect of the technical realm, in that it concerns everything that has an impact at the level of the physical manifestation of the imagery on the rock.

[18] Although the seemingly clear dichotomy of figurative/abstract categorisation emerged within western artistic scholarship and practice in the twentieth century, this distinction is not necessarily as clear cut in image-making traditions elsewhere. In the context of San rock art, panels do not necessarily fall into a simple classification of 'figurative' or 'abstract' due to pictorial or stylistic features, and many variances occur.



Fig. 2.1. A view of the Brandewyn River beyond the bush, photographed from the first of nine sites on the Sevilla trail, Cederberg, Western Cape. Photographed by the author, October 2014



Fig. 2.2. Map of southern Africa showing the location of the Cederberg mountains, Western Cape. Source: Encyclopedia Britannica Inc., 2013

Sevilla Trail Sites (Cederberg Mountains, Western Cape, South Africa)

The Cederberg is often compared to the uKhahlamba-Drakensberg region for its concentration of rock art sites and research. Sevilla is one of two public rock art trails affiliated with the farm Traveller's Rest located just north-east of Clanwilliam in the Cederberg region of the Western Cape. Many paintings attributed to the San are featured on the trail, at a total of 10 sites.

The Sevilla trail consists of nine sites along the Brandewyn River (**Fig. 2.3**). There are three panels from two different sites located on the Sevilla trail[19] that are a part of this discussion around paint patch imagery. These examples[20] are *Veg'n Vlug* (SEV1A) (**Figs. 2.4**, **2.5**), *Polychrome human figures* (SEV1B) (**Figs. 2.6, 2.7**) and *Cave of the Monsters*[21] (SEV3) (**Figs. 2.8, 2.9**). An analysis centred on the technical use of colour will be applied to these panels with explicit concentration on the depiction of the paint patch motif. Technical use as defined here involves the sourcing of ingredients, the preparation of paint, its application on the rock surface, and subsequent physical interaction with the painted markings.

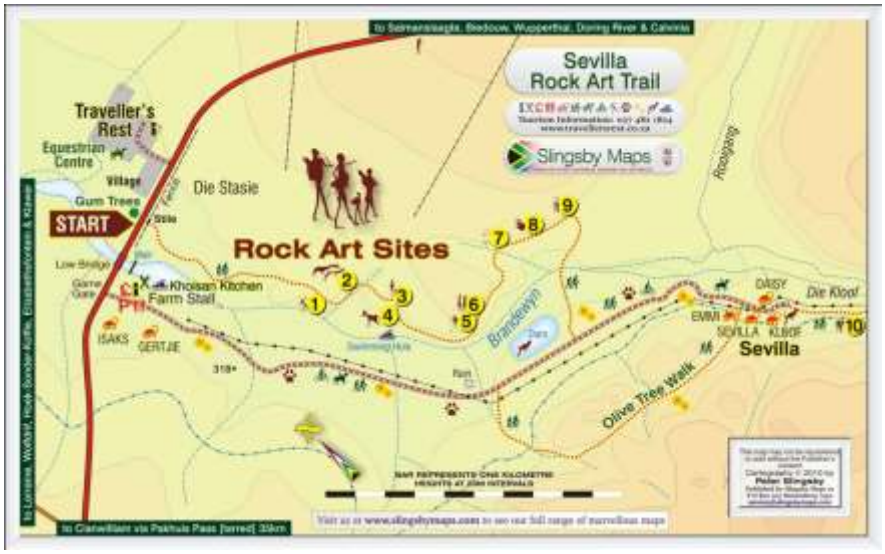


Fig. 2.3. Sketch map of the Sevilla Rock Art Trail, Cederberg. Source: Cartography by Peter Slingsby, 2013.

[19] SEV (combined with a number for each site) is the abbreviation allocated to these sites on the South African Rock Art Digital Archive (SARADA). This is the site numbering system that I adopt here. Note that this system is different from the site numbering on the Slingsby map which does not include locations for *Veg'n Vlug* (SEV1A) and *Polychrome human figures* (SEV1B) which occur in the regional vicinity, but specific locations are not provided as they are designated as sensitive sites. The sites *Veg'n Vlug* (SEV1A) and *Polychrome human figures* (SEV1B) were inaccessible during my field study and the observations and analysis provided are based on digital archives from SARADA.

[20] The titles of these art panels are given for the purposes of clear designation and convenience, and reflect names based on previous research conducted at these sites (*Veg'n Vlug* in Johnson and Maggs 1979; *Polychrome human figures* in Yates and Manhire 1991; *Cave of the Monsters* in Slingsby 2013). They do not purport to reflect names or scenic grouping based in a San world-view, nor do they necessarily reflect current interpretations of these scenes.

[21] Peter Slingsby (2013) refers to Sevilla Trail Site 2 (SEV3) as the *Cave of the Monsters* due to the enigmatic lizard-like figures he describes as 'fantastical'.



Fig. 2.4. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RSA-SEV1-9)

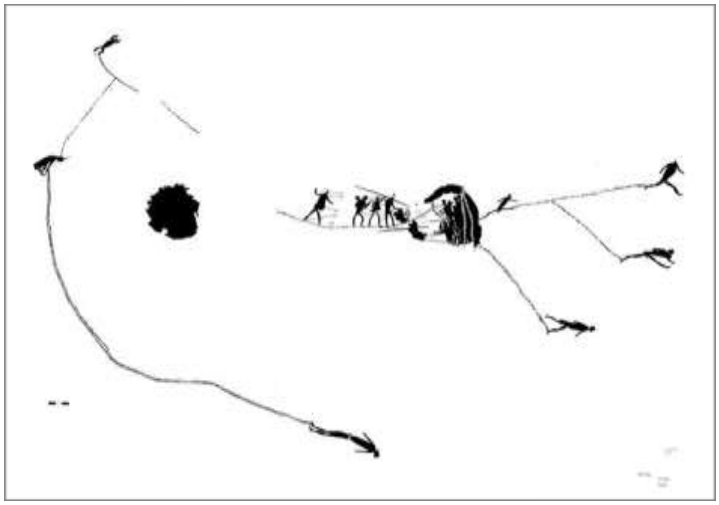


Fig. 2.5. Re-drawing, Rock Painting, Site RSA SEV1A, Image ID RARI RSA SEV1A 1R, Image Reference, RARI-RSA-SEV1A-1R.jpg, 1986 04-03, Tracing film, Ink, 86.79cm x 103.52cm, Rock Art Research Institute, Site ID RSA SEV1A, Cederberg, Western Cape.



Fig. 2.6. *Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8)



Fig. 2.7. *Polychrome human figures* borrowed from Parkington (2003: 44, fig. 33), Tracing by Royden Yates, including several instances of the paint patch motif, Sevilla trail, Cederberg, Western Cape.



Fig. 2.8. Paint patch panel from *Cave of the Monsters*, Sevilla trail SEV3, Cederberg, Western Cape. Photographed by the author, October 2014



Fig. 2.9. Paint patch panel from *Cave of the Monsters*, Sevilla trail SEV3, Cederberg, Western Cape. Photographed by the author, October 2014

The Sevilla Trail Sites and the Paint Patch Motif

A review of the analysis of the paint patch motif by John Parkington (2003), supplemented by observations collected during fieldwork is undertaken. The motif has been defined in the scholarship as a 'palette' (Yates et al. 1990), 'paint patch' (Hollmann 1993) and 'patch of paint' (Hampson et al. 2002 and others). Parkington's study is situated within the wider terrain of literature on the paint patch motif, which includes scholarship by Yates and Manhire (1991), Lewis-Williams and Blundell (1997), and Hampson (2013).

The paint patch motif is generally rendered in red or yellow, and occasionally black or white. As a motif commonly described as 'monochrome', the paint patch is well-suited for a focused study of several basic optical properties of a single colour: hue, value and saturation. In general, hue refers to the shade of colour, value describes the lightness or darkness of the colour and saturation delineates colour intensity. Technical aspects of paint preparation, including the sourcing and mixing of pigment and other ingredients are also considered. These monochrome motifs, at first glance, appear simple in design and execution. Despite the pared down minimalist rendering against the background of the rock face, tonal variations are still visible. The natural colouration present on the surface of the rock face beneath and surrounding these motifs, as well as that of the surrounding imagery, alter the perception of these motifs. As well, these factors affect the optical output to the viewer through colour perception, including the effect of simultaneous colour contrast. The effect is rooted in pictorial perspective with the advancement of lighter hues and the recession of darker hues. This play on perceptibility, coupled with evidence indicating physical manipulation and interaction with these paint patch images sometime after their placement on the rock (Yates & Manhire 1991), inspires avenues to further explore the role of colour in this chapter.

While the motif might appear 'simplistic' when compared with elaborate figurative compositions, it carries performative and ritualistic complexities beyond what one can see. In other painted markings it is clear that the central objective appears to be the creation of a picture with clear external referents. The paint patches, on the other hand, embody a more direct engagement on the part of the artist (Yates & Manhire 1991) with the paint as a material. As well, some images were repainted—a practice that has also been connected to the performative nature of the imagery (Ibid.). This resonates with the way abstract painting in the realm of modern and contemporary art is often said to be about the paint itself as well as the process of painting rather than the creation of an illusion of representation (Rosand 1988: 51).

Scholars have paid little attention to the visual characteristics and subtleties, with more focus on the functionality of the motif. The use of the descriptive term 'monochrome', for instance, does not acknowledge the apparent tonal variations discernible in these motifs. The physical properties of the

motifs complement earlier studies surrounding their role. These motifs have been interpreted as a practical means of holding paint for the artist, hence the proposed term ‘palette’ (Parkington 2003: 44).

The Technical Realm of Colour

David Lewis-Williams (2002: 114) describes paint as one key technical element of San rock painting. The second component is the rock face or physical substratum upon which the images reside and that they also penetrate. Lewis-Williams highlights too that the paint and rock face are not only mere technical means to art production but purveyors of meaning. Similar insights can be gleaned from examining the process of obtaining the pigment and other ingredients, aspects of which would have been ritualised, as well as the preparation of the pigment, application and interaction with the imagery on the rock face. This chapter has been structured with the aim of tracking the role that colour plays as part of these production stages in the ‘life cycle’ of the art. Each component is one part of a set of inter-linked operations paramount in the shaping of cosmological frameworks of understanding, and consequently, reflects something of that framework. It is the aim of this study to enhance an understanding of San visual practice not just as an expression of a complex world-view, but as a constitutive part of its scope as a visual tradition, replete with enigmatic imagery, stylistic variations and numinous meaning.

The potential benefits of colour analysis are *visibly* absent from schematic tracings and *contextually* absent from academic investigations. Colour is brought in as an integral aspect of the art but only as it forms part of the formal aspects of painting to develop an iconographic ‘narrative’. In previous analyses of rock art sites, colour is never considered a site of meaning in and of itself. Colour fulfills an essential but supporting, pervasive yet unspoken role in the interpretive work of rock art scholarship. This research is an attempt to reposition colour as a significant component of understanding through specific reference to the paint patch motif. The analysis is performed to gauge the way in which colour functions as a fundamental element of design, starting with its technical dimensions. Colour should not necessarily be the main lens of analysis more generally, nor should it somehow replace other approaches. However, this study establishes colour as a useful way to understanding the fundamentals of painting practices because it combines material and conceptual dimensions from the outset.

The three aforementioned panels have been chosen in the Cederberg to think through the question of colour as a technical device, and to expand on the incipient interest in pigment and colour initiated by earlier scholars, including Vinnicombe (1975, 1976), Jolly (1986), Lewis-Williams (1986) and Yates and Manhire (1991).



Fig. 2.10. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RSA-SEV1-9)

The Paint Patch Motif, Colour Procurement, and Preparation

The *Veg'n Vlug* ('fight and flight') site SEV1A (**Fig. 2.10**)[22] has been described as a 'conflict scene' (Parkington 2003: 63). When documented by earlier scholars, it was isolated from a larger rooftop composition. This selection is maintained here because it includes the paint patch motifs examined more closely (**Figs. 2.4, 2.5, 2.10, 2.11**). This low ceiling panel has been described by Parkington (2003: 64) as obtrusively located near a stream, in a space lacking proof of habitation. The complex imagery in this painting has been posited as critical to 'the unlocking of the conventions used by painters of the Western Cape' (Parkington 2002: 112). The panel (**Fig. 2.10**) contains one compact group of human figures inside an enclosure and another line of figures on a pathway, with the two groups appearing to face each other; for the rest, the figures are disparate. These groups are flanked on each side by circular colour shapes (Parkington 2003: 64). One is a solid patch of colour and an example of the so-called palette, or paint patch motif. The other is a possible variation on this motif—a hollow and partially drawn circle rather than a solid one—potentially describing a physical enclosure for one set of the figures depicted. Additionally, a path of short brush strokes extends from the compactly huddled group to the right with three trailing figures that appear to float to the outer extremities of the pathway. To the left, a series of short red brush strokes juxtaposes the opposing group through a long, poised staff directed towards the huddled band of figures (**Fig. 2.12**). Finally, the last pathway of short brush strokes meanders with a standing figure trailing at its extremity. All lines appear to emanate from within the concave red hollow. The red semi-circle is drawn around a natural cleft in the rock face (**Fig. 2.10**), emphasizing this topographical feature as a change in terrain, creating a cave-like space for the figures. The second circular motif may play a similarly scenic role, which begins to blur the boundaries between figurative and non-figurative.

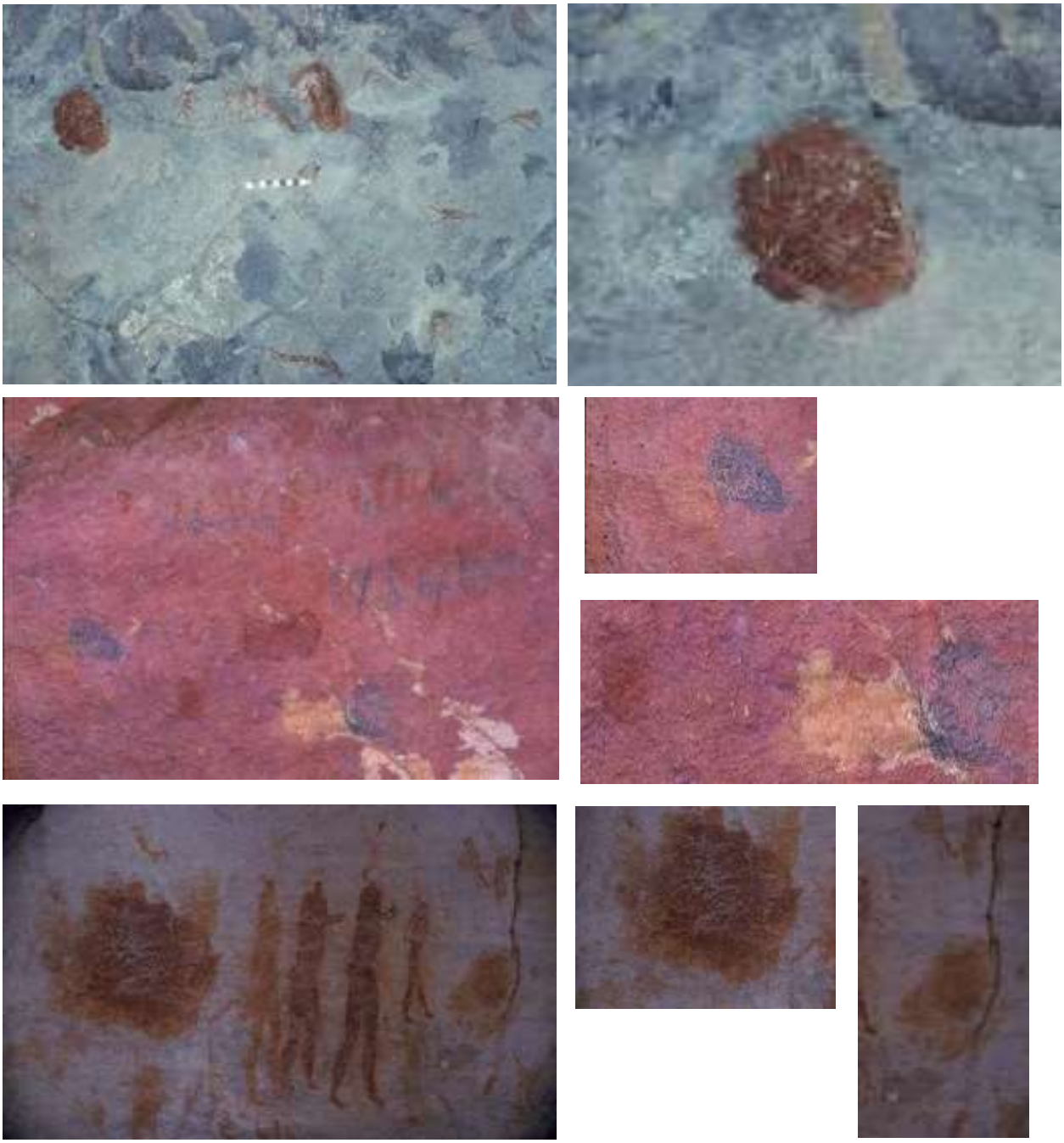
In conjunction with the aforementioned interpretation of the paint patch imagery as a physical byproduct of preparation for corresponding paintings (a 'palette' or container for the paint), Parkington (2003: 44) further emphasizes the similarities in the colour juxtaposition in the paint patch and in the other motifs nearby (**Fig. 2.11** Composite). He acknowledges the work of Yates and Manhire (1991) in an examination of the paintings as reservoirs of potency that could be accessed through subsequent interaction with the dried paint patches (Parkington 2003: 45).

While this is a refreshing interpretive approach that conveys the significance of colour, it misses an opportunity to fully incorporate aspects of colour linked to earlier stages in the operational sequence of making a painting, and the relationship to potency through the initial stage of procurement and preparation. As such, Parkington (2003: 45) leads the reader to draw the conclusion that the paint itself is a potent attribute linking content and substance. However, he omits a discussion on sourcing the pigment

[22] Hollmann 1993; Lewis-Williams 1998; Parkington 2002a, 2002b 2005; Gabrielsson 2016

and preparation of the medium, which could have reinforced the idea of the active potency of the paint as a substance (Lewis-Williams & Dowson 1990: 14–15; Yates, Parkington & Manhire 1990).

An awareness of the range of procedures involved in the making of a painting already enriches its ‘reading’, because this means it is not limited to what we can see. This study has tried to encourage discussion on the sourcing and preparation of a medium that can be associated with potency, and is therefore related to ritualised and spiritual significance tied into the broader culture. To consider the preparatory aspects is to acknowledge that the paintings are intimately linked to wider processes of living and making, and are the result of a complex operation of execution and creation—not purely optical manifestations. There is little direct information coming from the Cederberg about the process of sourcing ingredients and making the paint.



Figs. 2.11. Composite (top to bottom) detail of paint patch colour similarity. Source: Top- *Veg 'n Vlug*, Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RSA-SEV1-9), Centre-*Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8), Bottom-*Cave of Monsters* (Detail), Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV3-9)

Pigment Procurement

The sourcing of pigment for use in a range of activities is an ancient practice extending back to the Middle Stone Age, and evidence for this has been found at Blombos Cave, an archaeological site located in Blombosfontein Nature Reserve, east of Cape Town, South Africa. Pieces of ochre (c. 75,000 years old) fashioned in the shape of a crayon were among the remarkable remains found at this site and signal, according to researcher Christopher Henshilwood and colleagues, remnants of creative use (Henshilwood et al. 2002; Henshilwood & Dubreuil 2009). A later exploration of the same archaeological site has uncovered incised ochre, the oldest yet found, dating to about 70,000 years old (Henshilwood et al. 2018). These discoveries may cause scholars to revise their assessments of the development of modern human behaviour. Art historical chronologies are equally inclined to redefine timelines to include the significant contributions of sub-Saharan Africa to the origins of potentially symbolic behaviour and the resulting evolution of syntactical language and creative impulse (Frank 2009, 2011, 2014).

The acquisition of the pigment to be used for the production of San rock paintings is an essential part of the creative process. There are indications of a level of ritual and questing, as recorded by Marion How (1967: 35), that was associated with the attainment of haematite (*qhang qhang*), a traditional San pigment recorded to be of particular importance in the Maloti mountains. Mapote, a southern Sotho experienced in San painting methods (How 1967; Lewis-Williams 2002: 255), revealed that it could only be obtained at the apex of the southeastern mountains of the Maloti-Drakensberg (How 1967: 34; Lewis-Williams 2002: 255; Lewis-Williams & Challis 2011: 7). More closely aligned geographically with the Cederberg region (although still a considerable distance away), the |Xam mined red haematite (*ttò*) and a black pigment (||*hara*), which also included a ritualised process of procurement. The spiritually charged nature of the mine where the minerals were obtained had to be properly honored to appease the 'sorcerer guardians' (Bleek & Lloyd 1911: 378–379). References in the Bleek and Lloyd collection make direct mention of the securing (L VIII.-14. 7275, 7276, 7279 and 7380) and processing of pigments (7273 rev.) that would be used as body ointment and potentially also served as a colouring agent for other activities:

> Ttò, "Rooi Klip",
> The […] [Ttò] is in the mountain, the […] mine; the people say that the mine is in the side of the mountain, the people say […] mine to it. The people are afraid (i.e. of the sorcerers who live by the mine) all of it, which the people (L VIII.-14. 7275) people feel that people are there the (sorcerers). The (the sorcerers) make a house there. [Jantje thinks the houses are small holes, like mouse holes.] Therefore, the people are said to ground […] [ttò] they anoint themselves when they collect the […] [ttò] And they are said, when they go to the […] they are said to throw stones at the […] mine (14. 7276) mine, while they wish that the sorcerers may hide (themselves), that they may quietly go, to get the […] [ttò], while they feel that the

> sorcerers {dwell at} the […] mine. Therefore, they are said to take stones, they throw stones at the […] mine, while they desire (14.7279) desire that the sorcerer may hide, that they may go in {quick} to get the […] [*ttò*]. And, they go to get the . . ., . . ., . . ., [*ttò, ttò, ttò*]; they also get the […] [*llhara*], they also put aside the, […] [*llhara*] and the […] [*ttò*]; and they return (home) (14.7280).
>
> for, they would be ill, if the sorcerers saw them (14.7280 rev.)
>
> […] [||*hara*] is that which is black; people (having mined it with fat) anoint their heads with it; while […] [*ttò*] is red, and people rub their flesh with it; when they have pounded it; they pound it, they rub their flesh with it […] (7273 rev.)

The archival material and associated scholarship (Bleek & Lloyd 1911: 378–379; How 1967: 35; Lewis-Williams 2002: 255; Solomon 2006: 101; Lewis-Williams & Challis 2011: 7, among others) suggests that allocating the pigment to make the paint for the paintings was not a mundane activity, but an event that required specialised preparation. The act of acquiring the fundamental medium of production was shrouded in numinous intervals of journeying, assemblage and propitiation. Anne Solomon sums up:

> Ethnographies suggest every stage of the process was deeply ritualised. Ethnographies describe measures to be taken when collecting pigments, to avoid annoying the sorcerers (spirits) living in the holes in the ground left by mining the materials. (2006: 101)

While red ochre[23] has been associated with ancient ritual practice for millennia, How's (1967) informant, Mapote, requested 'genuine San pigment' or *qhang qhang* (haematite) so that he could replicate the traditional San painting process at How's request. This specific specularite ochre was described as 'glistening' and has a historical record (spanning nearly 100,000 years) of preference for its shimmering aesthetic quality (Lewis-Williams & Challis 2011: 7). The pigment that was mined[24] has been described occasionally as a dazzling haematite (Lewis-Williams and Challis 2011: 7). The previous reference from the Bleek and Lloyd archive also notes a sparkling black pigment or stone (||*hara*) which was ground and mixed with fat (presumably of animal origin) and used to anoint the head (1878: L VIII.-14. 7272 rev., 7273 rev., -7276 rev., note). Lewis-Williams and Challis (2011) mention that ochres with a glimmering luster were highly sought after. A shimmer or glitter is an aspect of materiality that is closely linked to

[23] Ochre, a naturally occurring red pigment or iron oxide, has had a consistent archaeological presence in southern Africa for over 150,000 years and is considered by some researchers as being integral to body decoration, potentially used in a ritual context. For more than 300,000 years its periodic appearance in the archaeological record suggests a less consistent use in the deeper past; however, it is plausibly our earliest example of the human use of a colourant (Watts et al. 2016).
[24] Bleek & Lloyd 1878: 7275–7276, 7279; Bleek & Lloyd 1911: 378–379; How 1967: 34; Lewis-Williams 2002: 255; Solomon 2006: 101; Lewis-Williams & Challis 2011: 7

colour and it can enhance or alter the perception of colour. This discretion in pigment choice was likely based on knowledge of the varying uses of specific substances, including technical properties such as permanence.

Paint Preparation

Ethnographic reports provide some indication of the range of ingredients one might expect to have been involved in the production of the painting materials used to create the rock art imagery. Eland blood has been identified as a critical ingredient that would be added along with other binders that include animal fat (Jolly 1986: 6). Pigment analysis is a promising and relatively new area of research with implications for our understanding of processes of paint preparation.[25] The selective overview of this field commences with early research by Rudner (1982) on the historical and ethnographic parameters around Khoisan pigment use, with subsequent scholarship by Clottes et al. (1997) investigating a spectrum of Paleolithic paint ingredients within a European context. Furthermore, the dating of rock paint samples by Mazel and Watchman (1997) and Pearce (2011) extends our ability to secure chronological sequences as this compelling area of investigation continues. Ethnographic evidence and recent archaeological finds confirm the presence of binders in the composition of the pigment, although the exact formula in any given case is unknown (Henshilwood et al. 2011: 219–222).

Stephen Townley's (2015) experimental contribution on paint preparation is noteworthy. In the context of the Christmas Shelter project in the Drakensberg Mountains, he reflects on 'how observant and skillful the early San artists were regarding their understanding of paint and implement making':

> During my own trials on rock surfaces, I have found that fat and egg make good binding agents. Animal blood and sap from certain plants such as the euphorbia species can also perform a binding function, while saliva, water and animal gall are good carrying agents (i.e. they hold the finely ground pigment particles in suspension, allowing the paint to be drawn out on the rock surface).

He analysed the painting process as the identification of pigments and their manufacture into a workable paint using various binding and carrying agents.

[25] The findings of pigment analysis (e.g. Mazel & Watchman 1997; Pearce 2011) integrated into the existing chronological framework can potentially enrich the study of colour. Furthermore, as preservation concerns permeate current research, this emerging area of study may inform our understanding of pigment deterioration.

Research focusing on particular sources of colours is available (Bonneau, Pearce & Pollard 2011). As previously mentioned, the probable identified sources include red from haematite or ochre; black from carbon or manganese; white from kaolin, calcite or gypsum; and brown, reddish-brown and yellow from haematite or goethite (Bonneau, Pearce & Pollard 2011: 287; Bonneau et al. 2017). Further studies in pigment provenance will increase awareness of artistic technique and provide insight into process, function, as well as other unknowns surrounding the practice of painting, for example, pre-treatment of the rock surface (Bonneau et al. 2012). In the future, combining forensic studies with close visual studies could result in a more complex understanding of rock art.

The transformation of pigment into paint is a critical avenue of transmutation or modification, and would have formed in various ways a ritualised practice (How 1967: 37–41; Lewis-Williams 1981a: 31; van der Westhuizen pers. comm. 2014; Ouzman 2016: 27). As described above, ochre in its natural state already has different material and colour-related properties that can be instrumental for its initial selection and modification. Once ground (Hodgskiss & Wadley 2017; Petru 2006: 206–207), this sparkling red ochre could be burned over the fire at full moon (Stanford 1910; How 1967: 37–41; Lewis-Williams 2002: 114, 255), which would presumably have turned the pure hue of the red ochre into a darker or more maroon red (van der Westhuizen pers. comm. 2014). Sven Ouzman (2016: 27) notes the rarity of documented references to paint processing, highlighting the specificity of the research carried out by How (1967):

> Immediately relevant is one of perhaps five emic commentaries on San paints (see Lewis-Williams 1981a: 31) related to Marion Walsham How during May 1930 by the BaSotho man Mapote, who had part-San brothers. Mapote said *qhang*, which 'glistened and sparkled, whereas the [normal] ochre was just a dull earthly substance,' was the preferred ingredient for San paint and had to be fire-heated by a woman during full moon, crushed and mixed with fat and fresh eland blood. (How 1967: 37–41)

The 'burnt ochre' or dark red was created as a result of heating the ground pigment over a fire (How 1967: 37–41; Lewis-Williams 1981a: 31; van der Westhuizen pers. comm. 2014; Ouzman 2016: 27). While to date there are no definitive studies in the San painting tradition investigating the processing of ochre over fire to create a deeper hue, there are references to the burning of ochre to make darker colours in other contexts (e.g. Ucko & Rosenfeld 1967; Rudner 1986). This act of heating alongside other complex steps in the sourcing and processing, such as the addition of eland blood, have been designated as indicators of ritual significance. Furthermore, these important steps all point to transmutation, a conversion at the most fundamental level of observable change, some of which would have been evident through a shift in colour. The light of the fire could be key in this transition. Although speculative in this particular instance, it is plausible that the heat and light of fire would have played a key role in the preparation of paint ingredients at various points in the process. The resulting paint would have a clearly



Fig. 2.12. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: -RSA-SEV1A-31)

defined hue that is darker than the original hue of the mined ochre, and would presumably carry something of the symbolic power of the heat and light of the fire, potentially to be used to direct that power or energy into the act and product of painting.

Ochre being heated over fire during a full moon (How 1962; Lewis-Williams 2002: 255) implies a venerated transformation. Fire has been associated with potency as Katz (1982: 120–121) notes: 'There is *num* [potency] in the fire, and the !Kung [Ju/'hoansi] work with the fire. […] Healers use the same word, *daw*, to describe both the central dance fire and the fire within their own bodies'. Additionally, a central figure in San cosmology, |Kaggen, was called ||Kanndoro by his wife in a direct reference to 'fire stick owner' according to Lewis-Williams (2016: 66; Bleek 1956: 557).

Once prepared, the paint mixture would then be contained or stored in some way, as evidenced by 'paint pots' or animal horn containers with remnant paint found in the uKhahlamba-Drakensberg (Solomon 1998: 24). This important archaeological find and the Blombos cave abalone shell paint containers (Henshilwood et al. 2011) have challenged the timeline of the emergence of symbolic human behaviour and may signal one aspect of the earliest artistic modalities practiced in Africa.

As a point of speculation, this darker red colour that we see in the Sevilla trail examples may be a modified version of the lighter red paint that is also present on the *Veg'n Vlug* panel—possibly the result of burning the pigment over fire or other means of transformation of light red into dark. Although the precise nature of these material manipulations is not accessible through the method applied in this study, close attention must be paid to the subtle differences in colour that are observable on the rock face. These differences in colour point to the complexity of the making process, and also appear to be deliberately harnessed by the artists in the act of applying paint to the rock canvas.

A high degree of cultural proclivity regarding the description of colours, including red, is discernible in the ethnography. For instance, the indication of a specific hue variant is evident in the |Xam terms for red as *kīya*, 'red' (LL.VIII.24.8170v) and *kīya*, 'light'(LL.II.18.1669). There is further distinction and specificity with ||*xau ki !kīya*, 'also red'[26] (LL.VIII.24.8170v), discussed in detail later in the text. Furthermore, the prefix ||*xau ki* in the term ||*xau ki !kīya* for 'also red' does not translate directly as 'also' but appears etymologically related to the word ||*xaúken* (LL.V.19.5525), for blood. The terms *kīya*, 'red' and *kīya*, 'light' are used as a singular colour term (LL.VIII.24.8170v) and to describe a beast of prey whose eyes give light (LL.II.18.1669) and 'resemble fire'. The word ||*xaúken*, 'blood' (LL.V.19.5524v, LL.V.19.5525) is used in the archival reference to describe 'the anointing and smearing of blood from the healer's nose on the patient'. The adjectival inflection of a particular *red* and its potential conceptual link to 'blood' or 'light' is revealing. These hints of an intricate and subtle manipulation of materials within the process of paint preparation, visible particularly around the articulation of variations of the colour red, have a direct effect on the meaning and symbolic relevance of changing colours and their application on the rock face.

Variants in other |Xam colour terms important to this study include the use of *thoäka* for 'black' as well as 'blue', with *ú thoäka* as a modification for the term 'blackish'. Yellow and green are both somehow related to the term |*kaïnya.* And finally, the attribute of 'shining' (like glass or metal) is *ka kani* with variance for the term 'glitters' as *ka kaiten* and 'bright' or 'light' as *kīya* (L.II.-18.1669), which is the same word translated elsewhere as 'red'. The apparent inconsistencies around presumed colour terms are likely due to the fact that these terms did not ever denote abstract colours alone, as emphasised by Brenzinger (2015) and highlight the conflation between coloured properties and other visual and material properties. This challenge undergirds the argument for colour valency and complicates what the meaning of these colour terms are in any given context.

[26] As a point of clarification, there is reference in the Bleek and Lloyd archive concerning these colour terms. It states that Lucy Lloyd (1897: 8170 rev.) presumed that |han‡kass'o was presented with a swatch or card of varying colours to which he responded with the subsequent colour terms. This could indicate that the (same) colour red was presented twice in the exchange, but could also support the idea of two different reds being shown. As there is no further information, one can only speculate.



Fig. 2.13. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RARI-RSA-SEV1A-11)

In the *Veg'n Vlug* panel (**Fig. 2.12**), three, possibly four, hues are visible: red, white, yellow/orange and potentially black.[27] Red is the most prevalent hue used, and encompasses a range of subtly different reddish colours (including dark red, red-orange and pink-red) that could plausibly derive from different sources, mixtures or treatments of one type of bright red ochre. We cannot know whether this is the case from observation alone, but these red variations are clearly related in some way; they are distinct from one another but also close enough to have been made from one kind of red with different additions or treatments. It is acknowledged that the modulation of colour could derive from different primary ingredients to make up the paint, environmental effects,[28] or from modifications to those ingredients.

[27] Lab-based pigment analysis has not been performed in conjunction with my research of the imagery and tentative conclusions are based solely in a visual examination of the referenced sites. Pigment analysis of these sites has, to my knowledge, not been conducted, but has the potential in the future to enrich understanding of the processes of making these materials and their scenic relationships. A close observational approach could help to frame questions that physical sampling strategies would help answer.

[28] The issue of lichen growth in the Cederberg area is a significant case in point, potentially altering the perceptibility of the originally intended colour on the paintings. Lichen as well as other natural agents and processes have a significant bearing on the coloured appearance of a painting, and the effects of which have an impact on the colour analysis performed in this study (Nhundu 2015).

Darker red hues have been established in other studies to be the result of a heating process (Hovers et al. 2003), or the result of mixing with haematite (Bonneau, Pearce & Pollard 2011: 293), while the red-orange may be the result of mixing a pure red ochre with a pure yellow ochre. The pink-red colour is likely obtained through the addition of white to red, white being a colour that is also present in the panel separately. The paint that appears black may have been used to create depth through colour-mixing. A gradient or tonal effect could produce a separate colour in and of itself or a shade of the original hue. While there is limited scholarship on the sources from which white and yellow or other colours derive (but see Bonneau, Pearce & Pollard 2011: 287), there are extensive references related to the auspicious nature of obtaining red ochre and the procurement of black pigment or stone (||*hara)* as body ointment, but potentially also as a colourant for the development of paint. This lack of information regarding certain pigments also signals potential avenues for further research.

Parkington (2003: 69) affirms the high degree of subject selectivity in the paintings of the Cederberg region, which he feels indicates a particular cultural significance in the things being depicted. The intentional use of certain colours also reflects particular kinds of selectivity and therefore importance. Thorough and systematic canvassing by Parkington (2003: 42–43) has placed most of the individual motifs in this region in the 'monochrome' category, with red ochre as the most prolific colourant used. Bichrome is second in frequency, with polychrome rarely found in the region. The colouring agents for polychrome motifs are various combinations of black, red, orange, yellow and white (Parkington 2003: 43). However, red also predominates in the bichrome and polychrome configurations. Here, we see a concordance with the archaeological and ethnographic records pertaining to the extensive use of red ochre. Among the polychrome colour combinations, a black-white-red configuration is common, pointing to the potential existence of a triadic colour framework within this practice. A close colour analysis presents a challenge to some of the formerly established categories, specifically the monochrome assessment of the paint patch. This motif appears to incorporate more than one colour or shades of the original hue which could be seen as new, i.e. maroon as different than red but also a tonal variation of red. Furthermore, it shows that figures described as 'monochrome' are often more complexly coloured than simply through a single hue. Colours seem to have been mixed and used in conjunction with other

colours, interconnected rather than present as a single isolated colour.

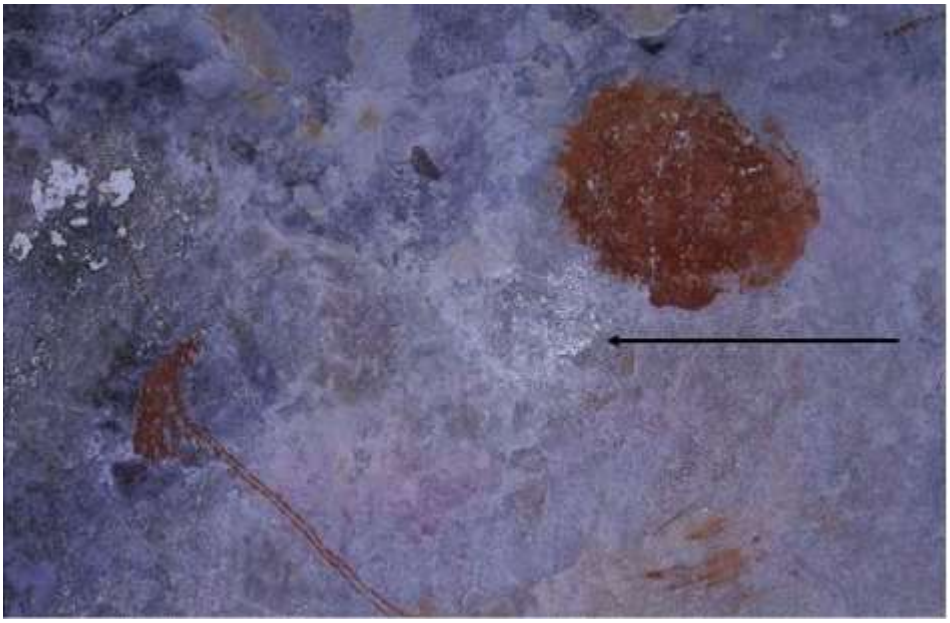


Fig. 2.14. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RARI RSA SEV1A 60). The white colour to the immediate left of the red paint patch is likely white mineral salts, and not anthropogenic. There are similar traces of white in the upper the left corner.

The panel *Veg'n Vlug* (**Fig. 2.13**) is an example of how a darker red paint substance, related to the light red by hue, is visible on the rock face. Its specificity could indicate contextual relevance. Firstly, the darker red paint is used to establish the dotted parallel lines that appear to stream from the nose of the central figure in the enclosure towards the oncoming group of figures to the left. This dotted pathway is illustrated through each of the four figures being anchored to this pathway. The coloured pathway is suggestive of this 'burnt' dark red ochre as the framework within which this oncoming group of figures resides. The prominent figure at the core of this group with the outstretched bow and the figures immediately rearward are all marked with this dark red paint.

The crouching figures at the bottom of the group and indeterminate figures to the back that blend with the arching concave structure are painted in a brighter red hue that has orange undertones. This might suggest the mixing of the light red with a contrasting colour, such as a yellow ochre pigment. The figures walking towards the enclosure from the left are a faded orange-red with ever increasing tonal gradients of yellow with white or other additives. This subdued tone resembles the colour of the crudely designated concave structure under which dark red, red, and red-orange figures huddle under the tension of the dark red provocateur figure with drawn bow (**Fig. 2.13**).

The diverging pathways lead the viewer's eye towards an area of tension between the two groupings of figures. These dash-lined pathways are all designated in the dark red ochre, as are the trailing figures at the end of each pathway. The compositional motifs are executed in the same dark red 'modified' ochre. Additionally, there is what appears to be a smaller, less prominent white colour to the immediate centre left of the red paint patch (**Fig. 2.14**, see arrow), but this white colour is likely a naturally occurring mineral salt rather than anthropogenic. The dark tonal red of the paint patch motif reflects one of the colours used at the apex of the compositional tension, with the *white* arrows and *dark red* nasal emanation that delineate the pathway. This juxtaposition of a monochrome red paint patch moves beyond Parkington's (2003: 64) original assessment of these colour palettes as unintentional, or simply used in the service of the figurative imagery. Rather than byproducts of the painting process, this study explores the colours as key compositional elements of the panel that are integral by both mimicking indentations of the rock face and being an active component of the figurative imagery.

The main focus is on the paint patch motif for the purposes of this technical exploration, yet, it is imperative to include a reflection on the colour differentiation in the figural imagery across this panel. The paint patch motif to the left of the approaching group of figures makes use of the same colour harmonies and varied tonality as the figural imagery, which suggests a relationship between the forms. Perhaps, duality between the narrative and non-narrative is conveyed through the use of colour. The seemingly non-narrative paint patch dually engages with the figural imagery through chromatic resonance. In the context of this imagery, narrative refers to a coherent and cumulative set of relationships between the visual, scenic, spatial and action-related elements (Lewis-Williams 2010: 5). This idea contrasts with the previously assumed notion of the rock art as 'depictions of everyday life'.

The red paint patch in the *Veg'n Vlug* panel is multilayered with successive zones of varied tonal red; however, the 'dark red' appears only to be used as the top layer. Its use as the top layer of the paint patch motif (**Fig. 2.14**) and in certain prominent figures may point to key areas of significance of this colour. The compositional tension is created by the relationship between the 'palette' and the enclosure. They have the same size, are of similar shape and colour (made from potentially the same paint), and one is orientated towards the other (**Fig. 2.15**). There is a formal and compositional relationship between them. It appears that the enclosure is a modified, 'opened up' or inflected version of the paint patch motif which seems to protrude slightly forward and be slightly convex (unlike the concave enclosure).

The use of dark red within this composition creates prominence through the manipulation of tonal values. The warmer and darker red hues naturally advance or appear as if closer to the viewer, while the muted with predominately orange and white overlays naturally recede. In other words, the muted cooler hues appear to be positioned further away from the viewer, and so the use of this colour also serves to create a sense of space and depth within the panel. This dynamic spatial aspect of the panel is not captured in the redrawing (**Fig. 2.5**).

Insight on Ritual and Transmutation Through Procurement and Preparation

The special attention allocated to securing and preparing the pigment that would be used to paint is an indication of the ritual and symbolic components of the creative process. A recurring factor in the selection of pigment is its luminous quality. From the acquiring of sparking or luminous substances such as the *qhang*, to the possible transformation of that natural pigment with fire, these actions speak to the running thread of light and potency. A correlation between the ritualised attainment and preparation of paint might be connected to spiritual potency and perhaps its concentration and storage on the rock face (How 1967: 37–41; Lewis-Williams 1981a: 31; van der Westhuizen pers. comm. 2014; Ouzman 2016: 27). This, in turn, is connected in many ways to the harnessing of potency, or light.

Due to the combination of pronounced parameters around the preparation of paint and the visual assertion of potency, we can assume the paint patch motif might also embody these colour-related kinds of influence. This enigmatic imagery appears to convey a notion of stored potency. The reds are subtly different but related technically, narratively and compositionally. They are technically related in that all the shades are possibly derived from a single red through different kinds of transformations during the procurement and preparation phases (including possibly by fire). Likewise, the circular swathes of concentrated colour convey a reservoir of spiritual energy or potency. When we reflect on previous scholarship on the intricacies of obtaining and manufacturing the paint, these highly concentrated areas of pigment were not merely random, but purposeful allocations of a substance that was not easily attained or prepared. Instead, a specialised resource, singularly associated with ritual, was designated on the rock face. This would imply colour valence through the deliberate sourcing and processing of certain pigment.

Fundamentally, the process of obtaining and making paint, and the ways this process would be intimately linked to the final appearance of the art, would have been significant in any given context despite the limited empirically based insights currently available. A rise in forensic research will contribute to changing this situation. More generally, the living context of paint procurement and production is gone, with only fragmentary and partial records preserved. As a result, many aspects of these complex processes of

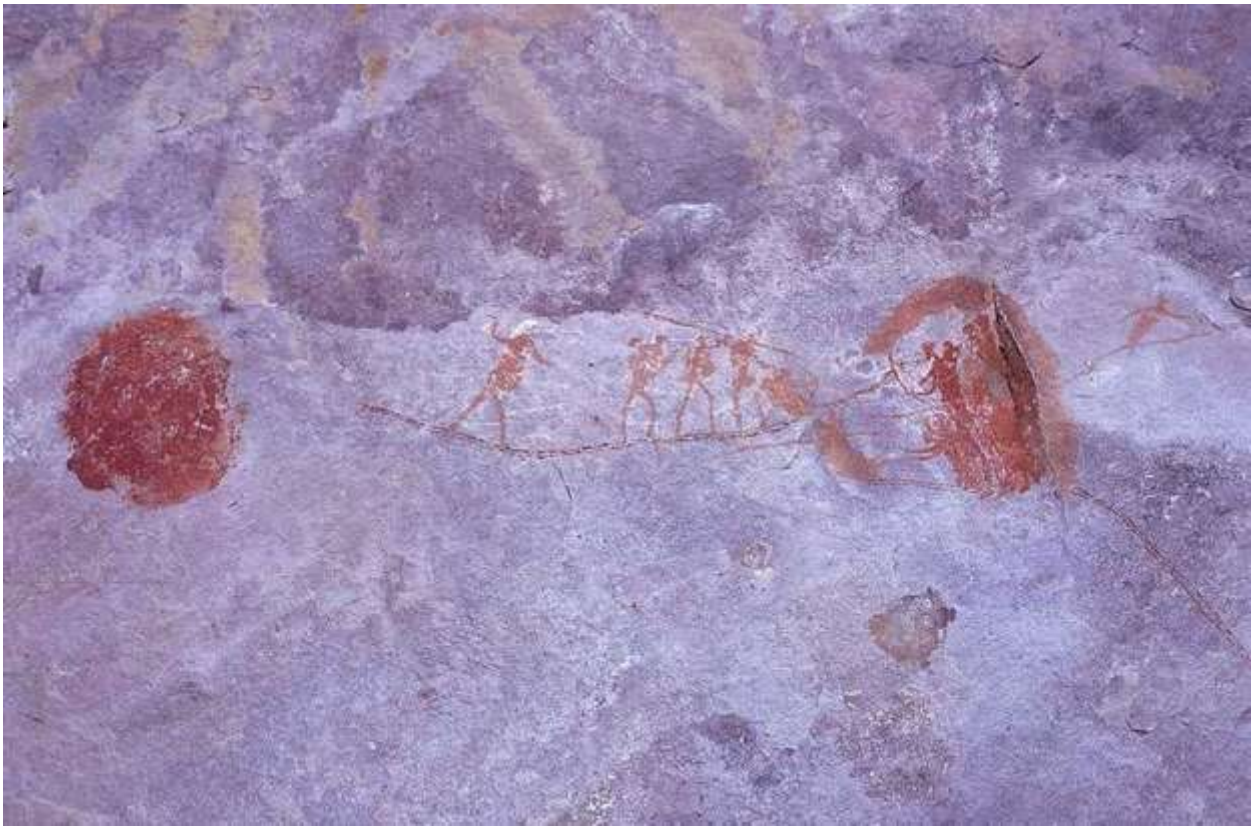


Fig. 2.15. *Veg 'n Vlug* (Fight and Flight), Sevilla trail, Cederberg, Western Cape, Site SEV1A. Image: RARI (SARADA: RARI RSA JDC RSA SEV1A 24). Photographed by Janette Deacon

artistic production will remain a question for researchers.

San painting technology could be read within a wider context of mining and transforming materials into paint. Mineral colourants were processed through increasingly sophisticated methods in the relatively well-researched context of ancient Egypt. About 6000 years ago (4000 BCE), this process included the washing of pigments to enhance clarity, durability and permanence (Barnett et al. 2006: 446). The Egyptian blue colourant made from calcium copper silicate ($CaCuSi_4O_{10}$) heated to coloured glass or frit and then ground to produce the base of the pigment is most notably associated with its burial use in Saqqara and in the beadwork of Mesopotamia. The Roman development of the colour purple continues to

have metaphorical resonance today due to its rarity and costly attainment. The mollusks *Murex trunculus* and *Purpura haemastoma* were harvested from the Mediterranean Sea, and fluid from the hypobranchial gland was the base of the purple pigment. Its difficult procurement influenced its subsequent association with wealth, power and royalty (Barnett et al. 2006: 448).

Blue was rare globally, yet we have an example in South Africa that warrants closer examination. A blue-green pigment made from the mineral celadonite/heulandite originates from tributaries of the Shashe River and is used in depictions of Kingfisher and mormyrid family rock art imagery in the central Limpopo basin of southern Africa (Eastwood 1997: 5). The principle of looking at colour as a result of a complex process of preparation (and associated transformations) has potential for our understanding of colours other than red, e.g. blue, black and so on. Compared with the San painting tradition, the Egyptian and Roman contexts are well-researched, including the technological aspects of these societies. There is still much to learn of other practices of modifying coloured substances from nature in southern Africa.
It is evident that pigment mining and use in a wide range of activities extending from ritual to functional are ancient practices that would have contributed to the contextual meaning of San rock paintings. Because of the technologically complex nature of certain steps in the ochre transformation process, for example, the possible darkening of red ochre in the fire, it can be argued that some of this transformative power would have been transferred into the painting. This discussion into paint preparation sets the stage for an investigation of its application onto the rock surface.

The Paint Patch Motif, Colour Application

I saw that there was nothing magical about any large surface by itself and that any such surface revealed at once its derivation from the palette; but through another surface, opposed to it, this surface acquired indeed a magical power, so that its origin on the palette seemed unbelievable at first impression.
Kandinsky *Reminiscences* (1913)

[…] mutual transfiguration […] makes every colour dependent on the support of all the others.
Arnheim *Art and Visual Perception* (1974: 362)

The critical function of pigment attainment and processing has been identified within the framework of the technical use of colour. Further clarity on the second component which is the application of colour onto the rock canvas will now be developed. Here, painting is defined as the manipulation of different colours in relation to one another. In order to explore one of the primary ways in which colour is articulated when applied onto the rock, the fundamental properties of colour established within a western framework—hue, value and saturation—will be reviewed to assess their usefulness in the context of San rock painting.



Fig. 2.16. *Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8)

Hue is a property of colour associated with our perceptual differentiation of the variance within the colour spectrum and tied to our naming of colour terms. This can best be described through the current division of primary colours as red, yellow and blue, and secondary colours as green, orange and violet. These distinctions are said to be differences in hue. Hue variations are understood to exist in all cultural contexts because perceptual colour universals can to some extent be established (Wierzbicka 2008). However, the conceptual dimensions of various hues tied to their categorisation and naming remain more challenging (Ibid.). While one definition of hue is the purest or most distinctive form of a given colour (for example, primary red), in the context of San painting, hue would mean the purest form of a given kind of ochre (the most saturated). Furthermore, |Xam colour terms conflate hues such as blue and black and yellow and green. This correlates with the Berlin and Kay (1969) study of colour assimilation, and naturally has an impact on the given names we assign today in analysis.[29] It is important to note that while colour names/terms wouldn't necessarily be the same as those used in the past, similar kinds of distinctions would nonetheless have been present.

Value and saturation are terms that are arguably based in modern fabrication and use of synthetic pigments. However, in the context of this study, they can provide ways to describe how colour in its natural form can be altered as an expressive component of composition. Value in this respect refers to the tonal variance ranging from light to dark, and saturation pertains to the brilliance or intensity of colour. Additionally, these technical terms can be adapted to other contexts and also have resonance with the different axes of colour manipulation. For example, if these technical attributes are conceptualised through the lens of the triad, with red acting as hue and achromatic black and white as agents of value and saturation, the compositional effects of darkness and lightness would be visible. The value of colour corresponds with the lightness or darkness of a particular hue. In colour theory, this is attributed to the amount of shade/tint that is added to a pure hue. While black added to a pure colour is referred to as shade, correspondingly, white added to colour is defined as tint. The value of colour creates compositional structure within a work of art. Works that establish a colour palette in a high-key tone often incorporate colours that have a proportionately large amount of tint; likewise, a low-tonal key will produce a work with dominant colours that have a propensity toward consistent use of shades to darken the hue.

The capability of value to create a narrative of relationships is often mentioned, and rarely highlighted in colour analysis. An artist's use of colour value can have a direct effect on the subtleties of depth perception by its placement in connection to referential elements. This interplay of the gradation of colour value is a key aspect of the paint patch motif and its placement on the red rock face and in relation to other imagery nearby. The background is pertinent due to the contrasting zones of colour the rock comprises even before the paint is applied, and the contrast it presents in relation to the paint. The

[29] For further information regarding |Xam colour terms refer to Annexure II.

sensorial effects of imagery that inhabit the same basic pure colour-hue as the background can have an impact on the viewer. With regards to value, the relationship to other compositional referents is important. The opening quote of this section recalls Kandinsky's (1913) remarks on the impetus of referential context in the presumed completeness of an image and its inherent agency.

The panel *Polychrome human figures* (**Fig. 2.16**) contains five paint patch images in red, black and yellow along with what appears to be a figural procession. The most unique aspect of this panel is the natural pinkish-red, slightly desaturated towards the grey colouring of the rock face. This has a definitive impact on the reading of the imagery, including the paint patch motifs that are placed on top of this coloured surface. In the case of contrasting colours such as black or white, the background red rock canvas projects that imagery towards the viewer. However, with analogous or complementary coloured imagery in tonal reds or yellow, the red rock canvas makes the imagery appear to recede into the surface of the shelter. The innate colouring of the rock wall forms an integral part of the imagery and influences the reading of the figures placed onto its surface.

Parkington (2003: 44) makes note of the correspondence between colours employed for the paint patch images and the surrounding figural imagery. There is present some colour correspondence but not a strict adherence to a specific colour matching. Close visual examination reveals white paint flecks on the surface of the black painted figural imagery. They could be natural, and there is no white paint patch in the composition. Additionally, while a yellow paint patch is clearly visible, yet there is no clear presence of yellow in the imagery, although this could be due to colour loss (**Fig. 2.7**). Clearly evident is the incomplete state of image preservation and original colour key most likely due to the effects of weathering.

The *Polychrome human figures* panel (**Fig. 2.16**) includes a procession of figures grouped in two parallel, predominately single file lines. The groups are asymmetrical and appear to be conjoined but never converge fully. The figures in the top procession are wearing cloaks and carrying hunting gear (**Fig. 2.7, 2.17**), while figures in the lower line appear to be uncloaked and without hunting gear. The cloaks of several figures were likely painted in a different colour that has since vanished completely, possibly white which has a tendency to disappear due to weathering. Both columns include prostrating figures near rectangular shapes at the forefront with standing figures at the back. The five paint patch images are again placed at the periphery of the figural imagery, although they are clearly incorporated contextually through placement and colour to convey compositional unity. In other words, the paint patch motifs appear to create colour balance at centre-left and bottom-left to the figural grouping at upper-right and

centre-right. Furthermore, near one of the deepest red paint patch motifs is an eland torso in the same deep red—an associative placement and colour harmony that suggest interconnection.

The paint patch motifs present in the *Polychrome human figures* (**Figs. 2.18, 2.19, 2.20**) panel is an example of colour creating a three-dimensional effect. These circular areas of layered pigment appear to convey a sense of dimensionality due to colour differentiation through modulation of intensity and value. This may have occurred over time through various painting episodes. The use of different hues and the



Fig. 2.17. Detail *Polychrome human figures*, RSA SEV1B 5, 2001-03-29, Cederberg Western Cape. Rock Art Research Institute, University of the Witwatersrand

addition of shade and tint to the pure hue might have been carried out to create an interesting circular portal beyond the two-dimensional flatness of the remaining panel. This has the effect of mirroring and modifying the volume of the rock face upon which it is painted. This aspect of design provides an example of the technical application of colour to produce volume through the manipulation of tints and shades of a pure hue.

The paint patch motifs on the panel *Polychrome human figures* (**Fig. 2.16**) seem to be subject to a kind of atmospheric perspective[30] through the application of paint. *Imprimatura,* an Italian term that translates as *first layer*, in an art historical context describes the under-layer of paint purposely devised to act as a base and/or reflector of light for subsequent coats of paint. This entails the purposeful placement of colour by the artist combined with the biological functions of the viewer's eye to produce the perception of perspective. For instance, the light layers of red are the foundation for the darker red uppermost layer, allowing undertones closer to the substratum to create an ocular crevasse. This simple colour zone layering of slightly different variations of the same hue (red) creates the effect of depth perception. This observation is aligned with current research on rock surface preparation in San rock art (Hall et al. 2007a, b; Venter 2011). Recent research supports the concept of potential colour layering with findings on the preparation of painted rock surfaces: 'Findings suggest that some of the San art has been painted onto surfaces that have been prepared by smoothing the rock surface with a "grinding stone" and in some instances coated with a clay ("ground") layer prior to the application of pigments' (Hall et al. 2007a, b; Venter 2001: 9).

The panel *Polychrome human figures* (**Fig. 2.16**) exhibits signs of either weathering or repeated acts of interaction and human interchange which provide insight on paint application. Although five paint patches are depicted, one in yellow, two in black and two in red, only the fifth red paint patch below the eland torso shows slight pigment deterioration. Signs of extensive 'smoothing' have been noted on one of the palettes by Yates and Manhire (1991: 7, fig. 4). The red paint patch that shows signs of human manipulation is distinctively darker (and corresponds in colour to the eland torso nearby) (**Fig. 2.20**), than the other red paint patch. While this dark red, or maroon, varies in tonality and saturation across the motif, it is distinctively different from the red-orange pigment that lies to the far left of the trio of red, yellow, black paint patches to the left of the figural imagery (**Fig. 2.19**). Moreover, although the figures that converge in an asymmetrical linear procession are designated, in part, with red, it is clearly the red-orange, or 'pure' red hue, rather than the darker burnt ochre of the smoothed paint patch (**Fig. 2.20**) that is the deliberate colour choice for this group. The polychrome figural grouping, while also utilising the yellow and black, is clearly on balance in colour symmetry with the pure red of the nearby paint patch motif, although it has been muted ostensibly due to natural paint loss. Certain imagery appropriated explicitly for human interaction such as the dark red paint patch can provide insight into the significance of specific pigments.

Although four of the five paint patch motifs appear to have sustained extensive paint deterioration, the remaining colours provide critical insight on the colour layering that might have been part of the process of paint application. This challenges the categorisation of these motifs as monochrome. The trio of paint patch motifs in red, yellow, black (**Fig. 2.19**) show possible signs of residual white paint. This white paint

[30] The application of physiological atmospheric effects on the eye duplicated formally in a visual work of art that has an impact on the depiction of distance and recession (Lucie-Smith 1984: 145).

may have served as the *imprimatura* layer for the subsequent coloured top coat, or a preparatory white clay (Hall et al. 2007a, b; Venter 2001: 9). While subsequent layers may have been painted, as there are some traces of yellow hues on the red paint patch and red hues on the yellow paint patch visible, this is speculative and further research is required.

Another critical component of colour layering is the deliberate incorporation of the natural reddish tone of the rock surface. Although the rock surface is not technically a painted surface, it functions as an initial layer of colour in the process of paint application. Interestingly, the white paint layer may have served as a barrier to the already red surface in the black paint patch motifs (represented as part of the trio in **Fig. 2.19** and alone in **Fig. 2.18**). Another viable explanation is salt deposition or a residue from the rubbing of the paint patch. However, these other possibilities would require microscopic analysis. In consideration of these observations related to colour layering, these motifs should be considered bichrome *if not* polychrome, despite their current designation as monochrome (Parkington 2003). The important insight gained around the interdependence of colour recalls the opening quote of the chapter by Arnheim (1974: 362) about mutual transfiguration. It is noted here through background and layered colour mixing as well as the impact of colour consanguinity.

The construction of the paint patch motif is immediately reminiscent of the Colour Field Painting art movement of the twentieth century, recognisable as a modernist abstract style with the emotive use of varying the tonality of a single hue, or colour. This movement was also concerned with tension reflected in the modulated tonality as well as the textural contrast and juxtaposition of smoothed paint surfaces. Rough surfaces of the rock face are key formal elements within a non-narrative work. Modulated tonality seems to be a consistent and deliberate process, despite the limited use of this effect in colours other than red. The modulation of colour appears to be achieved through layered zones of temperance in hue, and variations based on tints and saturation. A darker hue of red is preceded by a light layer. This modulation of colour in successive zones again allows the optical illusion of advancing and receding depth. However, it should be emphasised that this effect might also be the result of successive applications of paint over undetermined intervals of time rather than an intentional artistic device. Either way though, at some point this effect became integrated into the way these motifs appear.

In the example of the panel *Polychrome human figures*, the paint patch motifs are consistent with other motifs of the same general description involving the roughly circular application of paint. This application typically contains a broken rather than fluid border of unevenly adhered paint. The highly uniform, yet



Fig. 2.18. *Polychrome human figures*, Detail of black paint patch below figural procession, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA SEV1B 11)



Fig. 2.19. *Polychrome human figures*, Trio of black, yellow and red (left to right) of paint patch motif, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA SEV1B 3)

geometric scope of this motif points to a wider range of different application methods and tools than is traditionally associated with the fine-line painting practice. The deployment of paint in this manner, however, is also similar to the large swathes of colour that cover the elephant and 'dinosaur' motifs at Sevilla trail and associated sites in the area. What could be described as a splatter effect is visible along the edges of paint that encompasses the entire border (**Figs. 2.18, 2.19, 2.20**). The broken margins suggest the paint was applied with a tool that did not allow for as much control as a fine brush. This can be compared to the technique of lithography, where a plate is impressed with ink by a hand tool, or brayer, for smooth distribution of pigment onto the substrate. This sometimes leads to excess ink spreading beyond the intended edges when it is applied too thickly, resulting in a mottled edge.

Differential deterioration of the surface of the paint patch might suggest either weathering of various materials or substances at different rates, combined with the effect of paint being built up in layers. The Cederberg region is especially known for colourant deterioration (Parkington 2003: 39) and black lichen growth (van der Westhuizen 2014).

In the process of paint application, the deliberate saturation of a colour-hue can have profound effects on colour perception. Josef Albers was a colour theorist within the field of visual arts and an artist affiliated with the Bauhaus movement. As an artist that promoted the tenets of European modernism, Albers (1964) produced a compendium of works that varied the three properties of colour-hue, value and saturation, but consistently retained the same compositional structure. *Homage to the Square* was meant to reveal the 'relativity and instability of colour perception':

> They [the colours] are juxtaposed for various and changing visual effects. […] Such action, reaction, interaction […] is sought in order to make obvious how colors influence and change each other; that the same color, for instance—with different grounds or neighbors—looks different […] Such colour deceptions prove that we see colors almost never unrelated to each other. (Albers 1964: n.p.; Kleiner 2009: xli)

The series of works by Albers illuminates the numinous nature of colour perception (**Figs. 2.21**, **2.22**). These examples show that the juxtaposition of certain background colours has a profound impact on primary imagery. For example, in the case of the *Broad Call*, the centre square is almost incoherent as it recedes into the slightly brighter tonal background. On the other hand, the centre square in *Homage to the Square* is clearly recognisable against the higher tonal key present in the double margin background. Albers inspires one to pay closer attention to similar effects of varying degrees of saturation that might be present as a deliberate visual device in San rock painting.

Following the *Homage to the Square* colour study, an observation of 'saturated colour' of the red paint patch motifs contained within the panel *Polychrome human figures* (**Fig. 2.16**) is explored. There are clearly two different red paint patch motifs depicted in *Polychrome human figures*, with distinct variance in saturation and, as a result, a different interaction with the background. Weathering and natural paint loss have definitively had an impact on the colour observable today. However, one red paint patch is more muted than the other, although they retain the same natural red background colour. This is relatable to the manipulation of ground and overlapping imagery that Albers experimented with to show the instability of colour.



Fig. 2.20. *Polychrome human figures* detail showing red eland torso and red paint patch motif, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA SEVIB 8).

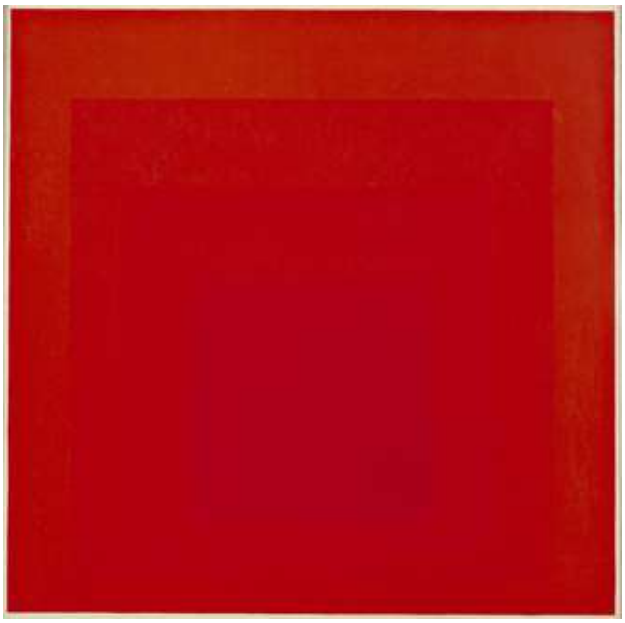


Fig. 2.21. Josef Albers, *Homage to the Square: Broad Call*, 1967. Oil on composition board, 48 x 48 inches (121.9 x 121.9 cm). The Sidney and Harriet Janis Collection, Museum of Modern Art, New York, 664. 1967 © 2018 The Josef and Anni Albers Foundation/Artists Rights Society, New York

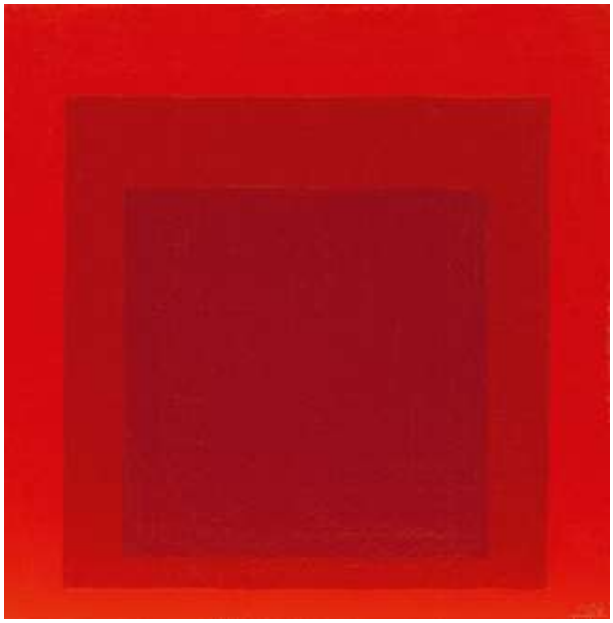


Fig. 2.22. Josef Albers, *Homage to the Square*, 1969. Oil on masonite, 15 7/8 x 15 7/8 x 1/8 inches (40.4 x 40.3 x 0.4 cm). Solomon R. Guggenheim Museum, New York, Gift, The Josef Albers Foundation, Inc., 1991, 91.3891 © 2018 The Josef and Anni Albers Foundation/Artists Rights Society, New York



Fig. 2.23. Saturation colour study, detail of paint patch in *Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8)



Fig. 2.24 Saturation colour study, detail of paint patch in *Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8).



Fig. 2.25. Location of paint patch motifs designated in saturation colour study (**Figs. 2.23, 2.24**) within the larger context of *Polychrome human figures*, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: RSA-SEV1B-8)

Although it would be impossible and unnecessary to attribute this technique to San image-makers with certainty, it remains a viable avenue for exploring the dynamics of colour perception. Albers's investigation into colour was a practice in dimensionality through the simple alteration of colour relationships by way of the juxtaposition of variations of the same hue. The saturation of colour or the modification of its intensity and brilliance has an impact on its visual manifestation. The muted red paint patch appears to have more tint, while the intensity of the contrasting red paint patch contains more shade. This, in effect, results in the recession of the muted paint patch motif (**Fig. 2.22**), as is the case with Albers's *Homage to the Square: Broad Call* (**Fig. 2.21**). The centre square in the Albers painting and the paint patch motif have been superseded by their quality of saturation so as to barely be distinguishable from the background. *Homage to the Square* shows an almost inverted effect (**Fig. 2.22**), where the sharp contrast of the red creates depth. The paint patch motif (**Fig. 2.24**) creates a perception of advancement of the imagery outwards towards the viewer.

Jamie Hampson (2016) points to an example from the Auras Canyon in North America, where the painted motifs are placed in close proximity to quartzlike calcite crystals which carry a sparkling effect significant

to many indigenous cultures (Pearson 2002; Reynolds 2009; Hampson 2013, 2016). Hampson emphasises the geological structure of quartz, specifically the piezo-electric composition, that when fractured or broken creates a bright light or triboluminescence (Hampson 2016: 135). This has some resonance with the geological formation of the Cederberg, where types of rock include shales, siltstones, sandstones, quartzites and conglomerates (Parkington 2003: 28).

The paint patch motifs in the *Polychrome human figures* panel is located near quartz veins or quartzlike properties of the rock (**Fig. 2.18**). This example points to the potentially deliberate appropriation of quartzite into the application of the paint patch motifs. This observation along with the removal of pigment within this imagery may allude to not only communion with pigment but also with the topographical elements of the rock face. This area of inquiry is key to ascertaining the manner in which colour is deployed as a technical tool and builds upon the scholarship of Yates and Manhire (1991) and the importance of materiality in the interactive use of colour.

Taçon (1991: 205, cited in Hampson 2013: 365) highlights the congruent development of polychrome paintings and the manufacture of quartz and quartzite spear points in Arnhem Land (Northern Territory, Australia). It is seen as key to the development of aesthetic interests in the iridescence, or radiant quality, of natural materials. Hampson (2013: 365) integrates the intrinsic attribute of dazzling light that emanates from crystals with the ethnographic record, linking 'shamanistic sight' and 'otherworldly vision' to 'altered states of consciousness'[31] (after Hampson 2013: 365). He further contends, based on research by Lewis-Williams and Pearce (2004: 19–20), that another dimension is accessed through the surface of the rock face by way of paint (Hampson 2013: 368). Therefore, the proximity of rock paintings to naturally occurring quartz veins in the rock face may attest to the harnessing of light/radiance as a beacon allowing fluid transition between the spirit and earthly realms. The paint imbued with potency through transmutation of ingredients and the inherent powerful attributes of the shimmering quartz are deliberate pictorial choices that imply significance.

To sum up, a close study of this panel in terms of hue variation is considered in this section. This includes two axes along which hue can be modified—value and saturation—in this case, an effect of colour layering. The analysis was carried out through a close look at the paint patch imagery in the *Polychrome human figures* panel. It was here that hue was explored through colour layering. A monochromatic colour zone layer technique is observed. A connection between the natural crevices and contours of the rock face and the modelling of paint patch forms is revealed. This supports established scholarship that these enigmatic motifs are materially relatable to the rock face, and plausibly also the spiritual veil between dimensions. It is through this visual investigation that tonal variations, or changes in value in a single hue,

[31] Also Rose 1957: 95; Eliade 1972: 138; Reichel-Dolmatoff 1978, 1979, 1985, 1988: 22, 1997; Berndt & Berndt 1992, 308–309; Elkins 1999.

might be seen to convey narrative relationships. This might occur singularly in motif allocation and contextually in contained panel compositions. The application of colour value is also used to provide a sense of dimensionality or spatiality. The effect of colour saturation was tested through a brief comparative study. Two examples of colour intensity in the paint patch motif of a single panel were used to show the corollary results in colour perception. In this case, the muted red paint patch appears to recede into the rock face background while the vibrant red motif appears to come towards the viewer in a display of atmospheric perspective.



Fig. 2.26. Mountains of the Western Cape. Borrowed from Parkington (2003: 26), Photography by Neil Rusch

The Paint Patch Motif, Colourful Interchange

> It seems that certain rock-art images were made to be touched, perhaps in some form of ritual. This finding emphasizes the materiality of the images. They were not simply 'pictures', but rather powerful 'things in themselves'—embodied beliefs made material.
> (Hampson 2013: 368)

Scholarly work focused on the explicit interaction[32] with existing imagery includes a cluster of three case studies carried out by Yates and Manhire (1991) dealing with the paint patch motif. This research is part of a series of studies centred on Sevilla and Boontjieskloof rock art sites that revealed intriguing evidence of communing with the imagery (Halkett 1982; Yates et al. 1985; Wiltshire 2011: 7). Rock paintings of this area have also been explored in relation to an alignment with the ritual practice of 'trancing' (Maggs & Sealy 1983; Yates et al. 1985; Manhire et al. 1986; Parkington 1989). The three case studies compiled by Yates and Manhire specifically focused on human interaction with the paint patch motif, which they referred to as a 'palette'. The studies explored the use of paint in terms of different kinds of successive engagements with the painted imagery categorised as 'smearing of pigment' (Yates & Manhire: 1991: 4, fig. 1. A line of human figures, Stinkrivier, Olifants River valley, south-western Cape); 'repainting of images' (Yates & Manhire: 1991: 5, 6, figs. 2, 3. Human figures, Teekliphuis, Watervalsrivier, south-western Cape, and Group of eland from Sevilla, south-western Cape); and 'smoothing of painted surfaces' (Yates & Manhire: 1991: 7, fig. 4. Polychrome human figures, Sevilla, south-western Cape).

The evidence suggests continual interaction by the San of the south-western Cape with this imagery as a recurring act of ritual practice (Yates & Manhire 1991: 3). Evidence of repainting has also been observed by Vinnicombe in her work in the uKhahlamba-Drakensberg (1976: 141, 164, 180), where it is commonly associated with superpositioning—an uncommon attribute in the Western Cape (Yates & Manhire 1991: 3).

This study explores this notion of engagement with the imagery through the vehicle of colour in the panel *Cave of the Monsters* (**Fig. 2.27**). The paint patch motif under study is included in a vignette within the larger rock shelf (**Fig. 2.28**). The imagery in this vignette consists of a large red-orange paint patch from which figures of varying colours and sizes appear to emerge. At the right of this cluster is a smaller paint patch also designated in red-orange. The surrounding images include animals and figures circling the prominent paint patch motif and other images that remain visible underneath this vignette.

---

[32] Yates and Manhire (1991) are referring to an 'interaction' as what happens after an initial act of painting. However, while 'interaction' does imply engagements that happen with paint that is already present, it is not always clear that this means at some later time, after the paint has been applied and/or dried. This uncertainty around when the interaction occurs reinforces the idea of the paintings as unfinished works, potentially being modified and added to as time goes by (Ibid.).

There is a distinct colour deviation in the paint patch motif on the left in comparison to the very small paint patch on the right (**Fig. 2.27**). The left paint patch motif from which figures appear to emerge has evidence of pigment loss on the uppermost ‘processed ochre’ colour zone. This shows potential signs of interaction through the purposeful removal of the uppermost layer of dark red paint. While successive zones of colour contribute to the sense of dimensionality that is conveyed, the top layer shows signs of loss.



Fig. 2.27. Cave of Monsters (Detail) RSA-SEV3-23,1998-06-18, Cederberg, Western Cape. Photographed by Jeremy 2005, Rock Art Research Institute, University of the Witwatersrand



Fig. 2.28. The paint patch motif vignette as seen within the *Cave of the Monsters* (site SEV3), Cederberg, Western Cape. Photographed by the author, October 2014

This is indicated through the zones of comprehensively abraded pigment throughout. White circular patches of erosion zigzag across the surface of the motif, suggesting a repetitive action of rubbing or scraping that creates a patterned corrosive effect. This pattern suggests an intimate, time-consuming and repetitive undertaking, which would indicate an important exercise and interplay between pigment and active participant, be it viewer or artist. Yates and Manhire (1991) examined the materiality of these enigmatic areas of paint. Their work conveyed insight into the characteristic smudging and smoothing interactions that were evident in the topical desecration of the remaining paint. This showed that some interaction or communion was taking place between the imagery and viewers of the imagery. It is also because of this 'power', and the probability that it is conveyed through a concentration of a coloured substance on the rock surface, that these particular motifs are useful to the study of colour valence.

The abraded surface of the larger paint patch in the *Cave of the Monsters* (**Fig. 2.27**) is in direct contrast to the smooth surface of the paint patch at the right of the figures, which is significantly smaller in size yet is delineated in a pure red or red-orange tone. Interestingly, the three larger figures emerging from the prominent paint patch are rendered in red-orange, dark red and finally 'burnt ochre' red (**Fig. 2.27**), gradually 'evolving' from a purer form of the red hue to the potentially more processed 'burnt ochre'. The fact that procession imagery in the Cederberg commonly includes hue variability, repainting and the addition of images to an existing painted panel may be evident. This engagement with the paint image should also be considered a platform from which this painting that is visible today originated. Figures that are unclear or poorly preserved include an indeterminate, incomplete figure in orange that emerges from the top right of the prominent paint patch, which could be part of the same group mentioned earlier featuring figures portrayed in a succession of colours.

Additionally, there is a figure at the far right of the procession of larger figures, directly to the left of the smaller paint patch, whose small size may be a deliberate attribute to distinguish it from the group. It should be noted that even if all these colours derived from the same initial pigment, separate processing for each colour variation would have been required, resulting in a complex mode of execution for essentially only four figures. If the painting was executed by different image-makers at different times, the panel may reflect an effort to maintain a certain colour harmony. This range of closely related colours shows a concern for deploying a subtle spectrum of variations on red, each of which would have required additional work to produce even if such details are not accessible to us. Therefore, colour choice was certainly significant to the artist(s) and they appear to have attached particular importance even to subtle differences between the colours.

The paint patch motifs in the panel in the *Cave of the Monsters*, particularly when considered in terms of the way hue has been deployed, offer an excellent opportunity for a discussion of another profound effect of colour. One of the insights gained through analysis of the smaller motif in the panel is the realisation



Fig. 2.29. Rock wall showing horizontal crevice and paint patch panel from *Cave of the Monsters*, Sevilla trail, Site 2, Cederberg, Western Cape. Photographed by the author, October 2014

that its shape and shading might mimic the natural darkening of crevices already present in the surrounding rock face (**Figs. 2.29, 2.30**). Parkington (2003: 44) describe the location of these oft discussed paint patch motifs as enigmatic swathes of colour typically situated on vertical surfaces in the Cederberg region. These can include the more or less horizontal under-surface of an overhanging rock ledge within the rock shelter, which is located near the naturally positioned occurrence of orbital-shaped crevices in the rock face (**Figs. 2.29, 2.30**). In the context of San rock art, the rock face has been referred to as more than a canvas, substratum or support for imagery; it can be considered a kind of veil or traversable interface through which to access the spiritual realm (Lewis-Williams & Dowson 1990; Whitley et al. 1999: 234; Whitley 2000; Hampson 2010; 2011; 2013).

Considering the rock surface as a dynamic medium, the paint patch motifs might be thought of as highly selective mnemonic devices that replicate concave curves of the rock face that are viewed as significant. The colour layering in the paint patch motif (**Fig. 2.31**) may therefore be a visual cue activating the rock surface and signalling the spatial depth of surface holes and depressions and their resonance with spiritual dimensionality. At several other sites the natural curve of the rock face is utilised as a function of imagery (Lewis-Williams & Dowson 1990; Helskog 1999; Arsenault 2004; Lewis-Williams & Challis 2011; Veth et al. 2011; Lemaitre 2012; Hampson 2013). Alternatively, you will find images emerging from a crevice, crack or natural indentation on the rock face (**Figs. 2.30**). These examples reinforce the idea that

there is no clear distinction between the rock face, the imagery and the world beyond. Colour and form are sometimes significant markers of these changes in direction of the rock, or partial entrances into the rock face.

Literary colour references are important to explore the cultural context of colour use and potential relevance to the analysis for the paint patch motif. The triad black-white-red might denote transformation, cosmology or categorical specificity. Previously discussed |Xam literary references specific to transformation that incorporate colours of the black-white-red triad include '|Xue' and 'Origin of the Moon'. 'The Dawn's Heart' is another |Xam literary reference specific to the unifying theme of cosmic relation in that black, white and red are all used to describe stars. The Ju|hoan description of 'Meat Animals' uses colours for different levels of respect and restriction concerning their consumption. These descriptors include the black-white-red triad and is an example of its categorical use. Black-white-red is also used historically to relay social relationships (Turner 1967) through bodily functions related to interchange such as gall bladder (black), milk (white) and blood (red). Turner (1967: 88-89) refers specifically to ethnographic literature in which societal ritual use of black, white and red is related to initiation. More specifically, social relations may reflect the nurturing interchange between mother-child through breastmilk while the presence of blood as a marker of pubescence could indicate child-adult transformation (Ibid: 89). In the paint patch motif, the coupled use of colour could convey binaries such as *black* and *red* for male (black) and female (red) stars; or *black* and *white* for darkness (black) and illumination (white). They could signal concepts related to these celestial bodies such as maturation and transformation, as previously discussed.

In the panel at *Cave of the Monsters* (**Fig. 2.31**), there are elongated male figures that are depicted as if they emerge from the paint patch imagery. These are commonly referred to as 'hook-headed' due to the degradation of the white pigment and the remaining curved red outline along the back of the head. It is unclear what this relationship entails in precise terms; however, the formal connection between the paint patch motif and the figures suggests a process of forming or becoming. Common elements in the visual vocabulary across the two motifs could potentially provide insight on not only the individual pictograph[33] but also the larger context of use. For instance, the prevailing notion of entering the rock face through the veil could be contiguous with the way the paint patch imagery is constructed. This may allow further insight into the use of this enigmatic motif. The idea of the rock face as a veil (Lewis-Williams & Blundell 1997; Lewis-Williams & Pearce 2008: 430) is a widely accepted general principle. The coloured articulation of the motif, its relationship to the colour of the rock and other ways in which colour plays a

[33] The term 'pictograph' can carry different meanings dependent upon the context in which it is used, especially in the case of San rock art scholarship where the term is rarely applied to the imagery. My use of the term here is synonymous with 'motif' referring to a singular pictorial image that is constitutive individually yet integral to the wider context of imagery present in the comprehensive scope of the rock panel.

role all enrich the understanding of the rock as a veil. Colour appears to be a significant aspect of the rock-veil's function as a membrane or interface; arguably, it could be seen as the vital component that activates the veil-like dynamic of the rock.

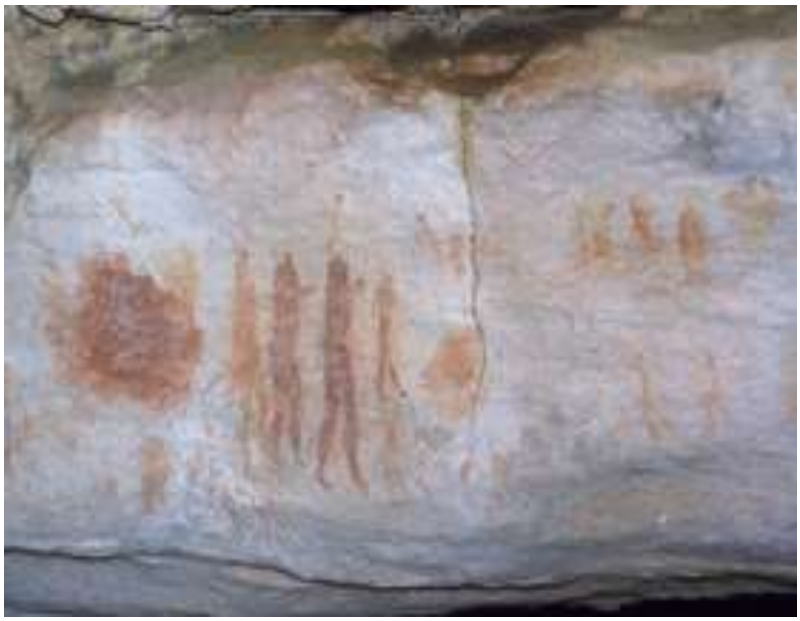


Fig. 2.30. Rock wall detail showing orbital crevice and location of paint patch motifs and figure groups, *Cave of the Monsters*, Sevilla trail, Site 2, Cederberg, Western Cape. Photographed by the author, 2014



Fig. 2.31. (Detail.) *Cave of the Monsters*, Cederberg, Western Cape, RSA-SEV3-23,1998-06-18. Photographed by Jeremy Hollmann, Rock Art Research Institute, University of the Witwatersrand



Fig. 2.32. (Detail.) Example of imagery emerging from a natural crevice in the rock face, Sevilla trail, Cederberg, Western Cape. Image: RARI (SARADA: NASMUS-RSA-SEV5-19)



Fig. 2.33. (Detail.) *Cave of the Monsters*, Cederberg, Western Cape, RSA-SEV3-23,1998-06-18. Photographed by Jeremy Hollmann, Rock Art Research Institute, University of the Witwatersrand

Scholars have observed that the paint is used to facilitate this transition, but there is no direct reference to the role of the colour of the paint in this process:

> It has been convincingly argued that supernaturally charged paint was sometimes believed to facilitate entrance into and exit from the spirit world that lay behind the rock face. (Hampson 2013: 368)

Perhaps the resemblance of the paint patch motif to naturally occurring crevices in the rock face draws attention to the properties of such chasms, hollows or holes—often also associated with rain. There is ethnographic data that pertains to the use of *rooiklip*, an Afrikaans term meaning 'red stone', in association with adornment. In the Bleek and Lloyd archive, this term also occasionally corresponds to the word ||*ka*, or 'red haematite'. Interestingly, the adornment is not always related to the body. In one specific tale, a young girl in transition to becoming a maiden adorns a spring with *rooiklip* (||*ka)* to prevent the spring from drying up (LL.VI.1.3970–3971/1874). Other references to *rooiklip* (||*ka*) are related specifically to body adornment, and sometimes associated with protection from lightning, or 'angry rain'

(LL.VI.1.3970–3974/1874). There may be some resemblance between the spring, which also emerges from an opening in the earth, and the holes and chasms in the rock face as portals for the channelling and procurement of water.

There are associated terms among the San when alluding to holes as tunnels, mechanisms for water collection and atmospheric phenomena of darkness and light. For example the many instances describing holes in the archival record include: the porcupine's burrowing hole and the 'reflecting of light' (LL.VIII.16.7430/1878); little water-holes (||*kauru-opua*) located in rock or stone (LL.VIII.1.6091/1878); the origin and death stories where all beings emerge from a 'great hole' during birth and eventually return in death (LL.VII.6.669–671/1871). From the ethnography and paint application one may infer that the paint patch are replications of naturally occurring rock impressions which serve as an aperture into the spiritual world beyond the veil of the rock face. The ethnographic context and the similarity present in the visual imagery provide metaphoric associations to consider (cf. Skotnes 2010).

Based on an analytical review of pigment procurement/manufacture, application and interaction, it can be suggested that these enigmatic circular swathes of colour pertain to the channelling of spiritual potency (Yates & Manhire 1991:8). Shamans have been noted in the ethnography to turn and face the paintings during a trance to gain potency (Jolly 1986; Williams 1986; Lewis-Williams & Challis 2011: 7):

> Once made the images feed back into the highly charged ambience of that time and place. Maquhoqa said that when people who were dancing felt the need for more potency, they turn to face the images in the rock shelters. As they raised their hands before the images, potency flowed into them. Because the potency of the eland was in their blood, the images became reservoirs of potency. (Lewis-Williams & Challis 2011: 7)

David Lewis-Williams further explains (2002: 114) how the reservoir of potency held within the pigment was capable of benevolent and malevolent effects based on the nature of the person interacting with the imagery. The analysis of the interactive nature of paint patch imagery and inherent social implications for the potency of the paint brings us insight into colour use and begins to acknowledge colour valence. Paint, and specific colours of paint in particular, may have served as a visually devised portal for facilitating contact beyond the rock face. The idea of the rock face as a veil or traversable membrane is widely recognised (Lewis-Williams & Dowson 1990; Whitley et al. 1999: 234; Lewis-Williams 2002: 115, Hampson 2013: 364), but the power of colour as a fundamental material property of rock and rock painting, able to play a role in the transition from one world to another, warrants further examination.

SUMMARY

This chapter has discussed the technical aspects of colour in reference to the paint patch motif located at sites along the Sevilla trail, Cederberg. These include procurement and paint preparation, paint application and paint interaction. From ethnographic reports we know that certain ochres were preferred, and procurement required a level of questing and veneration, and this may equally have applied to the preparation of ochres used in San rock painting. A paint application technique akin to *imprimatura* challenges the categorisation of monochrome motifs, suggesting them to be bichrome or polychrome through the subtle use of tonal variance in a colour zone schematic, and reinforcing the idea that the rock surface is an integral part of the imagery. The potential colour manipulation in the technical aspect of colour can be conceptualised through the lens of the triad, with red acting as hue, and achromatic black and white as agents of value and saturation. The triad would essentially reveal binary modes of darkness and lightness. It should be noted that the triad is not explanatory, but rather helps the construction of a relational framework. Subsequent interaction with the paint which included rubbing and smearing not only signals the importance of the materiality of paint, but also reveals a glimpse into the paintings as an ongoing creative process. It appeared that the black-white-red triadic colour scheme was important in the paint patch motif. Yet, black and red proved to be most prevalent with the addition of yellow. Black and red as binary colour concepts in the ethnography are used as cosmological and gender metaphors, such as *black* and *red* for male (black) and female (red) stars. This conceptual translation of colour in the paint patch motif could allude to gender-specific kinship. The modulation of the hue by processing, application and interaction may allude to ‘spiritual power’. The transmutation (process) produces a medium for penetrating the rock face (application) and accessing the world beyond the veil (interaction). Colour valence within the technical realm is centred in its materiality. This materiality begins to point to conceptual dimensions in the aesthetic aspect of colour explored in the next chapter.

CHAPTER THREE – AESTHETIC COLOUR PARADIGM

> In addition to the right-left, up-down axes of composition with which Westerners are familiar there is another that runs at right angles to these. […] Painters thus incorporated the horizontal and vertical axes of composition and a third—depth—in order to express the links that painted imagery had with the spirit-realm behind the rock face.
>
> Lewis-Williams 1992: 27

This chapter explores the aesthetic dimensions of colour as the second part of the study of the role of colour in San rock painting. An overview of the use of aesthetics in the discipline of art history is presented to provide a foundation for a review of its application in rock art discourse. The function of colour in the realm of aesthetics is explored through a look at the relationship between the stylistic use of motif and pattern in imagery at the Fetcani Glen site, Eastern Cape, South Africa.

In the past, the aesthetic and formal aspects of the rock paintings have been analysed through the context of Primitivism. Primitivism is a western art movement that explored and adopted the 'essence' of art forms established by indigenous peoples. The exploitative basis of Primitivism as a late-nineteenth-century stylistic trend fluctuated between the romanticised notion of the 'noble savage' and the fixation on formal qualities absent from European verism (Nettleton 2011: 141–142). As a result, the aesthetic or formal attributes of inquiry related to San painting traditions are mired in the negative predilections of Primitivism, which framed a range of African artistic traditions through the lens of a western canon. This study recognises this as problematic while returning to the visual as an undeniably rich entry into the analysis. This will be accomplished through an examination of patterns of construction in an image, particularly its repetitive idioms—in other words, analysis of the formal realm in a broader sense (beyond a single motif or instance). The methodology will again be implemented through the close visual appraisal of available scholarship in relation to a site example with an attempt to clarify patterns of aesthetic resonance.

This study will provide an investigation of conceptual designs based in aesthetics. This will further our understanding of the compositional framework of aesthetics and elucidate something of its wider relevance to symbolic representation. A review of aesthetic design through a pictorial system will be employed to encourage new avenues for establishing colour valence in this chapter.

Aesthetics

The term 'aesthetic' is commonly related to the perception of beauty. This understanding is often recognised as subjective and tied to a critique based on comparison and judgment. The *Oxford English*

Dictionary defines *aesthetic*[34] as a science of sensory perception. Alexander Baumgarten is often considered to have established the term and defined it as 'the science of sensible cognition' (Baumgarten 1986 [1750]). One of the most-cited theorists on aesthetic matters is Immanuel Kant (1724–1804). In his seminal work, *Critique of the Power of Judgment* (2001 [1790]), Kant categorised the notion of the 'aesthetic' as relating to the perception, appreciation or criticism of that which is 'beautiful'. At the same time he proposed a fundamental duality in aesthetics in the tension between the subjectivity of judgment and the universality of 'beauty' (Kant 2000 [1790]). The pluralistic nature of the aesthetic through the integration of both the subjective and objective means of sensory perception suggests its conceptual fluidity. It is this instability and complexity that has led to its subsequent multifaceted ontological application in various academic fields.

It would be difficult to conclude that aesthetic outlooks extend systematically across varied cultural contexts. The issue of cross-cultural aesthetics has been discussed extensively by anthropologists of art. In *Anthropology, art, and aesthetics*, Jeremy Coote (1992: 247) explains:

> The anthropology of aesthetics […] consists in the comparative study of valued perceptual experience in different societies. While our common human physiology no doubt results in our having universal, generalized responses to certain stimuli, perception is an active and cognitive process in which cultural factors play a dominant role. Perceptions are cultural phenomena.

It is through this definition of the anthropology of aesthetics that Coote (1992: 245) helps us understand that even cultures with no 'traditions of visual arts' still maintain a 'visual aesthetic'. Gell (1998) suggests aesthetics explored within the discipline of anthropology might be accomplished through developing a particular kind of anthropological 'theory of art':

> A purely cultural, aesthetic, 'appreciative' approach to art objects is an anthropological dead end. Instead, the question which interests me is the possibility of forming a 'theory of art' which fits naturally into the context of anthropology, given the premise that anthropological theories are 'recognizable' initially, as theories about social relationships, and not anything else. The simplest way to imagine this is to suppose that there could be a species of anthropological theory in which *persons* or 'social agents' are, in certain contexts, substituted for by *art objects*.

It is perhaps from this 'theory of art' that substitutes art objects for persons in an anthropological sense—that apportions art objects with an agency similar to that of people or other beings—that an appropriate discourse on aesthetics can be obtained.

[34] 'Aesthetic, n. and adj.'. OED Online. June 2017. Oxford University Press, www.oed.com/view/Entry/3237 (accessed December 04, 2017).

Howard Morphy (1989: 21) explores the aesthetics among the Yolngu of northern Australia by investigating the concept of *bir'yun*, or brilliance, in conjunction with the cross-hatched technique used on top of paintings. He argues for a 'modified form of aesthetic relativism'(Ibid.), so that the interpretive approach can be more culturally derived. Morphy (2006) further explains the challenging terrain of interdisciplinary and cultural variance in the approach to indigenous creativity. He encourages a pursuit towards a multiplicity of meaning and value found within indigenous arts. In *The anthropology of art: a reader*, Morphy and Perkins (2009) present an overview of the theoretical debates in the anthropology of art and suggest a cross-cultural perspective as integral to the appreciation of the aesthetics of art.

There are continuing debates concerning the relevance of aesthetics, and associated terms such as 'art', in various disciplines such as archaeology, anthropology and art history, and more recently, rock art studies (Solomon 1995; Tomásková 1997; Heyd & Clegg 2004, 2005). Thomas Heyd and John Clegg (2004: 3) provide the following definition of aesthetics specific to rock art:

> So, when we speak of rock art aesthetics we may mean the study, in a general way, of our sensations of anthropogenic marks on rock when those sensations are of interest for and in themselves. This strict literal application of Baumgarten's definition still has a place in the study of rock art. A more general understanding of Baumgarten's idea (and thus aesthetics) is that rock art aesthetics means the study of anthropogenic marks on rock when those marks become of interest for and in themselves as objects of perception. Clegg likes to summarise this idea as appreciation, lacking a more appropriate word.

Heyd and Clegg suggest that aesthetics is based on an external visual experience by the rock art researcher. While this formulation is valid, this study aims to deploy an emic notion of aesthetics in relation to San culture. Interestingly, the |Xam more specifically defined their creative literary 'arts' as inclusive of 'stories, news, talk, information, history and […] myths and folklore' collectively termed *kukummi* (Lewis-Williams 2000: 9; Wessels 2010: 3). Thus, as a multimodal aesthetic structure, this term comprises many elements of knowledge accumulation blurring genre divisions and underscoring the fluidity of discourse. This framework may also be relevant for the visual aesthetics displayed in the rock paintings through multi-modality. 'Visual aesthetics' may comprise tangible aspects of the 'collective creativity' discernible in the oral sphere, which may correspond with the aesthetic designation devised for this study. The technical developments around pigment manufacture and application begin to forge the articulation of a set of images that start to establish an aesthetic. A bridge is constructed between the imagined and the actual organisation of creative elements of design.

Aesthetics in Rock Art and the Point of Departure

Anne Solomon has encouraged scholars to shift aesthetics beyond the 'visual' to include a comprehensive reflection of sensory perception (Solomon 1995). She further explains, 'the question of aesthetics in the presentation of San history is as much concerned with contemporary theoretical and philosophical problems as it is with "representation" in the narrower sense of "visual imaging"' (Solomon 1995: 6). She emphasises the view that the 'mundane' has been marginalised in San aesthetics in favour of an entrenched mode of interpretive engagement via the spiritual realm. Solomon's return to a consideration of the 'mundane' has been partly facilitated in her own research through integrating the formal elements of art historical approaches into the content-specific iconography of archaeological approaches. In particular, she has analysed the variation within specific San rock 'motifs'. She is interested in the varied formal treatment of a motif and how that might signify a shift in significance (Solomon 1998, 1999). Further investigation of these visual patterns and divergences can potentially reveal analogous styles or chronologies and broaden our knowledge of aesthetic parameters.

The formal analysis of San rock paintings and the way an aesthetic approach serves an interpretation of colour valence is similar to the view of Heyd and Clegg (2004), who go on to emphasise:

> Many rock art images saliently exhibit features which, at least according to the views held in European cultures, are expressive of aesthetic values such as proportion, quality of line, narrativity, etc., and it is likely that those who made the images paid attention to these values if we find them expressed there.

Many of these formal features are also present in San rock art. Heyd and Clegg's (2004) functional definition of aesthetics is at times geared towards a subjective domain on the part of the rock art researcher and maker of the images. At the same time, particularly in the second quote, it seems to point towards something more universal and relatable to Kant's notion of aesthetics. A focus on aesthetic devices that arise from the patterns within the art itself is important. It is possible that formal elements might be recognisable by the viewer and other scholars because of some correspondence to aesthetic references gained elsewhere, outside of the San tradition. Perhaps both the subjective and universal perspectives can coexist without one contradicting the other. In the context of San creativity, aesthetic patterns appear to cross the oral/narrative and visual domains, because of the link between image-making and storytelling and the power and agency of the imagery.

However, aesthetics specific to this study concerns in the first instance the organisation of formal aspects of composition, such as colour, form, line and texture, as distinct visual constructs of design which can be re-arranged in infinite ways but retain some convention. The coloured aspects of the painterly

configuration of these elements is critical, as Martin Heidegger comments on the intrinsic quality of the means of expression: ‘There is something […] coloured in a painting, spoken in a linguistic work, sonorous in a musical composition’ (Heidegger 1993: 145).

Pictorially, a ‘motif’ with a fundamentally recognisable and recurrent graphic configuration can be rendered with innumerable variance in that design, for example, the paint patch motif examined in Chapter 2. In this study, colour is used to understand design systems and their operation within a composition. Information gained from this investigation is used to propose colour concepts that may structure further elements of iconography. Colour is the physical quality of the image that a wide array of techniques can harness for different effects, explored in the previous chapter. Colour is also the instrument through which a broad range of techniques can be produced. Furthermore, the aesthetic referents (core elements of design) once established and discernible within this deployment of colour can also shed light on variations, as well as the conceptual dimensions of colour. Variants can entail ‘exceeding’ the standard elements of the motif, building upon its primary premise with additional unique features, or in contrast ‘paring it down’ to retain the simplest formal components.

Solomon notes: ‘Writers in archaeology, anthropology and art history are currently wrestling with problems of integrating the extraordinary reality of art with the mundane realities of production’ (Solomon 1995: 51). Art is dependent on the platform of production, and it is a necessity for the development of the resultant creative output. The production of an artistic work requires conceptualisation of an idea, inventive manipulation of art media guided by that idea and translation of content through the active use of design principles. These carefully executed steps are the processes by which the finished artistic form is realised. Colour is an ordinary aspect of reality, but also one that can be modulated and harnessed to extraordinary effect. The integration of content (iconography) and style (formalism) are pertinent to this research and focus on the particular or ‘mundane’ as a tool for developing a deeper interchange with San creativity. It is a bridge that encompasses the parallel between conventional, unconventional and mundane, and extraordinary. This study is situated at the interface between the mundane and the extraordinary. It explores the deployment of colour, among other visual aspects of the physical world, as a medium of transformation from prosaic to sentient.

The Interface Between Motif and Pattern Adapted from Convention and Derivative

The aesthetic approach adopted here stems mainly from the art historical notion of the effectiveness of the formal elements of design within a work of art. Colour is the means through which these organising aspects of design within a composition are investigated, paying attention to a specific motif as a referent, as well as other iterations of that motif and the design variance or pattern therein. The aesthetic analysis takes into account tenets of San artistic discursive modalities through those expressed in the oral literary

tradition. In particular, the afore-mentioned circuitous arrangement of San literary expression, evident in the ethnography, may reverberate in the visual compositional design (Solomon 1998).

The elucidation of San aesthetic arrangement can be enhanced through recourse to ethnographic detail and the subtle changes in the imagery. These variants in depiction can be explored through something akin to the art historical paradigm of a 'derivative'. As a point of clarification, the 'derivative' concept is a guiding principle for the idea that pictures relate to other pictures, and that the art needs to be approached as an assemblage of interlinked works. For example, Edward Manet's *Luncheon on the Grass* (*Le Déjeuner sur l'Herbe*) (1863) borrowed its formal design from Raffaello Sanzio or Santi (Marcantonio Raimondi after Raphael) *The Judgement of the Paris*, ca. 1510–1520, an engraving that was itself a derivative of River Gods (detail of Roman sarcophagus), third century CE Villa Medici, Rome (Janson 1974: 14–15). A 'chain of relationships' exists twice removed from the 'original'. Likewise, a level of anonymity arises from the appropriation of a classic format from a derivative not necessarily known to the observer. This notion of derivative can in turn inform the conventional patterns. However, an assumption of the existence of an 'original' cannot be made in this application of a motif or pattern dichotomy as per the aforementioned example of the convention/derivative relationship.

The investigation into potentially significant motifs and artistic devices warrants an inquiry into the concept of pattern. In the scope of aesthetic execution, the possibility of generating an imagined model that lies behind the many patterns we have access to is explored. The study investigates the change in a referential aesthetic device, such as a motif, to plausibly uncover visual structures. The link between the aesthetic components, and the notion of a pattern, is examined through the stylistic variation.

Essentially, a pattern validates a referent—or motif, whether the viewer is aware of the genealogy or not. In the case of rock art, there is no actual 'original' in the sense of a physical painting, but rather an imagined or cognitive model, affiliation or design which comprises what all the 'motifs' may have in common. This pattern, as removed from the motif, retains components of the visual structure. A motif is recognisable through the organisation of formal elements in a set way, as with the paint patch motif. The level of anonymity of its referential counterpart may be lost to the viewer at a conscious level; however, the format resonates a recognisable embellishment. Stylistic trends begin to be recognised as a relatable and expected consequence of particular representational systems. For instance, the technicality of perspective includes recognisable planar fields placed in logical combinations over time that a viewer essentially becomes accustomed to seeing.

The general idea of the imagery being articulated around patterns, commonalities and differences extrapolates the general notion of the linear model of convention/derivative, which is too assumptive in the case of San rock art. The appropriation of a motif/pattern mode from the convention/derivative model

allows for the idea that the art also involves a limited number of themes across time and space, combined with a degree of imaginative elaboration and free-play.

The aesthetic exploration through the correlation between patterns and referents makes a significant contribution to this study. The parameters of objectivity in the realm of creative subjectivity are mitigated through the analysis of the objective motif or series of patterned equivalences. Additionally, this study of the variance that occurs within the motif allows, specifically in the Fetcani Glen panel, an attempt to begin to illuminate the stylistic trends that may be possible in San art. Measures can be taken to identify stylistic arrangements and their nuanced detail in an attempt to access core meaning and slight changes in meaning conveyed aesthetically. To explore the domain of a motif and its variation, the 'bleeding threads' motif example will now be examined.

Challenges of Western-Centric Aesthetics

In their investigation into the 'bleeding threads' motif, Lewis-Williams and Pearce (2009: 44–58) make regular reference to the problems with 'western' art historical notions of analysis. They postulate 'bleeding threads' as a variation of the 'threads of light' motif, a pictorial design most commonly associated with spiritual travel in the San painting tradition. In proposing an intricate look at the way colour is used in the aesthetic manifestation of the 'thread' motif, firstly, it would be best to address some key issues raised about the limitations of a western art historical perspective. An aesthetic analysis of the site based on the theoretical structure will be provided, systematically looking at the aesthetic of repetition in the 'bleeding threads' motif.

There are pivotal concerns that Lewis-Williams and Pearce (2009) present as challenges to a western art framework in the context of the Fetcani Glen site analysis. These matters include the notion of a discursive painting tradition, the presence of a particular compositional perspective and the syntactical/semantic categorisation of pictorial elements. Firstly, Lewis-Williams and Pearce (2009) identify this panel as discursive, dialogical and created beyond temporal constraints. They also indicate that the superpositioning of imagery is an attribute of the dialogical engagement between artists of different time periods. They contend that this type of visual vocabulary thus falls outside of the traditional framing of a work of art by an individual artist in the conventional sense of a western art canon.

Their analysis seeks to approach an artwork for its inherent qualities and evaluate the aesthetic features as they present themselves to the viewer, without negating the scope of design (Lewis-Williams & Pearce 2009). In the analysis of the 'bleeding threads' motif, the formal elements were segregated and a derivative was sought to draw some potential conceptual meaning. An interpretive approach would indeed be remiss to work entirely outside of the conceptual framework of the artists. This would require a

familiarity with the painting tradition, which might be achieved through an aesthetic approach such as the one applied in this study.

Lewis-Williams and Pearce (2009) emphasise that the works are not mere depictions, but rather images embedded with potency. Consistent with this position, an analysis of the formal elements of design should not supersede the inherent meaning of the imagery, but rather attempt to maintain an informative discourse. The goal is to clarify aesthetic elements to enhance the contextualisation of the paintings.

Secondly, Lewis-Williams and Pearce (2009) warn against the application of traditional western principles of balance and perspective in an attempt to define the compositional structure. This issue informs an analysis of visible markers of composition that seek only to articulate the design and compartmentalise the function of the pictorial elements into a predetermined system. This is because, at some level, the visual components of a work of art are always self-defined or autonomous. While systems of one-point and two-point perspective are predicated on particular notions of verism and realism that are pertinent to a western context of art-making, they may not apply to the aesthetic design of the San painting tradition which nonetheless also includes elements of naturalistic depiction. However, some compelling applications of western perspective have been applied to San painting with intriguing results (Skotnes 1994). The goal is to gain a level of universality that transcends the criteria formulated in a western context for San paintings through a review of the formal elements, while maintaining cultural integrity. There are ways in which the imagery might be aesthetically accessible to a viewer with a western background, even when the conventions are substantially different (or different in significant areas). Although these conventions cannot be observed or measured in the same terms, they might be expressed in terms that are understandable across varied contexts. Regardless of the different backgrounds between artist and viewer, aesthetic issues can be shared, particularly when one deepens the analysis through an investigation of the cultural context.

Finally, Lewis-Williams and Pearce's (2009) use of semantics and syntax to conceptualise the pictorial attributes present in this particular panel is pertinent to this study. The basis of their investigation of the individual image (semantic unit) in association with the entire panel (syntax) as a referential structure is important (Lewis-Williams & Pearce 2009). Their analysis is concerned with the variation within the individual image or semantic unit. This study also uses a pictorial structure for the clarification of how graphic elements work to build a compositional framework. Similarly, Lewis-Williams and Pearce (2009: 43, 44) emphasise that 'the significances of individual images situate panels (or parts of panels) conceptually'. The part (motif) is key to elucidating the whole (composition); its colour attributes, not closely examined by Lewis-Williams and Pearce, can enrich the interpretation.



Fig. 3.1. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARADA. Photographed by Janette Deacon, 1993

Lewis-Williams and Pearce propose a two-part structure—individual figures (or in their words, 'images'), and the compositional principles holding entire panels together; in other words, semantics and syntax. An intermediate stage has been introduced in the present analysis with its focus on colour. The particular configurations of motifs into designs or compositions can be seen to form a more generalised pattern of colour use at a larger scale (iconography). Whereas Lewis-Williams and Pearce (2009) focused on the patterns, the interest of my study lies also in the local, unique or idiosyncratic expressions (designs, or aesthetic articulations) of those patterns. Attention to colour enables a shift from a highly patterned realm of 'motif' into a fluid and open-ended aesthetic realm of design, and beyond this, folds back into a patterned realm of iconography at a larger scale. This interpretive mode fits with the infinite possibilities of the articulations of a design. In the next section, further review of the aesthetic colour perception concerning the 'threads of light' motif and the 'bleeding threads' variation will be examined.

The Aesthetic Realm of Colour

The Fetcani Glen[35] site (**Fig. 3.1**) is located in the Barkly East district in the Eastern Cape Province of South Africa. The rock shelter has been described by Lewis-Williams and Pearce (2009) as a relatively small north-facing outcrop (**Fig. 3.2**) near a stream. Although the rock shelter is small, the panel of rock imagery at the site is described as densely painted along the length of about 21 m and height of 2.2 m (Lewis-Williams & Pearce 2009: 45). The current analysis will be contained to the portion selected by Lewis-Williams and Pearce for consistency, as well as because it is this portion that contains the motif selected for analysis (**Figs. 3.3, 3.4**). In the panorama view of the site (**Fig. 3.3**), we can see the natural colouring of the rock face in wide horizontal bands and the calcite formations that vertically span the length of the outcrop. These are compelling features of the substrate upon which the painted imagery has been placed. Lewis-Williams and Pearce (2009: 45) make clear that the imagery within the larger panel probably entails the work of many different artists over time, as the paintings are multifaceted and divergent in stylistic rendering.

The portion of the larger panel (**Fig. 3.4**) that was selected by Lewis-Williams and Pearce measures 105 cm by 85 cm (2009: 45). This smaller vignette includes a panoply of colourful eland figures that are meticulously depicted overlapping one another. Human figures and smaller antelope are also a part of this segment and most often occur at the periphery of the group of eland. Other components of the imagery that are significant to the interpretation by Lewis-Williams and Pearce (2009: 45–53) include an eland in a 'dying posture' with three lines along his face; a human figure with two lines along his face; the 'threads of light' motif; and its variation, which they have termed 'bleeding threads'. They propose that these compositional components are most commonly associated with potency and broadly related to Lewis-Williams' 'shamanistic' theory (Lewis-Williams 1981). These aspects of the imagery are significant to the larger vignette and full panel. Of interest is the coloured aspect of the 'threads of light' motif and its associative patterned iteration, the 'bleeding threads'.

[35] For a comprehensive overview of the Fetcani Glen panel and site context, see Lewis-Williams and Pearce (2009). The SARADA website has many images available for review.



Fig. 3.2. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARADA. Photographed by Janette Deacon, 1993



Fig. 3.3. Fetcani Glen rock shelter, Barkly East, Eastern Cape, RARI DLW RSA FET3-2. David Lewis-Williams Collection 1972, Rock Art Research Institute, University of the Witwatersrand



Fig. 3.4. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, RARI DLW RSA FET3-2. Panel with 'bleeding threads' motif. David Lewis-Williams Collection 1972, Rock Art Research Institute, Johannesburg

The Fetcani Glen site features a compelling example of a well-known motif referred to as ‘threads of light’ (**Figs. 3.5**) (Lewis-Williams & Pearce 2009). These ‘threads of light’ are a common attribute found in San rock paintings located in the south-eastern mountains of Lesotho and South Africa (Ibid.). Their analysis benefits from the substantial earlier work on the ‘threads of light’ motif which confirms its links to the wider domain of San cosmology (Lewis-Williams 1981; Biesele 1993; Lewis-Williams & Dowson 1999; Lewis-Williams et al. 2000; Keeney 2003; Lewis-Williams & Pearce 2004, all cited in Lewis-Williams & Pearce 2009). A close examination of this motif referent and the patterned counterpart enables one to explore the role that colour plays in the domain of aesthetics pertinent to rock paintings.

‘Threads of Light’, an Aesthetic Motif

An examination of the Fetcani Glen panel and the nuanced ‘bleeding threads’ imagery, which is a variation of the more widely established ‘threads of light’ motif, suggests that current interpretations can



Fig. 3.5. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3 147D. Panel. ‘Bleeding threads’ motif. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

be enhanced through a look at colour valence, or significance. In its wider visual context, the ‘threads of light’ motif is a bifurcated red line that in some instances comprises white dots that meander throughout a

painting panel connecting various figural elements. Better-known iterations of this motif include a red line with white dots thought to convey tiered spiritual realms (Lewis-Williams 1981; Biesele 1993: 72; Keeney 2003; Lewis Williams et al. 2000). However, the potential colour valence and colour variance are never noted explicitly in the interpretive framework established by Lewis-Williams and Pearce (2009), while the interplay between semantics and syntax is analysed extensively.

There were several earlier interpretations of the meaning behind the basic graphic configuration of red lines with white dots along the edges or the convention 'threads of light' (Lewis-Williams 1981; Biesele 1993: 72; Keeney 2003; Lewis Williams et al. 2000). Lewis-Williams and colleagues (1981b; Lewis-Williams et al. 2000) give an account of the investigative avenues of thought regarding this motif. These include associations with directional mapping and Australian Aboriginal ritual accoutrements explored by Pager (1971: 164; 1975: 78–80); the 'river of life' and 'magic force' (Woodhouse 1975: 125; 1976: 6); and an interconnected alignment between shaman and animal (Vinnicombe 1976: 334). They further list typical visual characteristics of this line motif (Lewis-Williams et al. 2000: 128):

1) typically depicted in red and white with the red lines running parallel and white dots fringed along the edges;
2) presented as a path with figural and animal images often seen walking along the imagery;
3) grasped in the hands of figures as if it was a rope;
4) some figures, interpreted as ritual participants, have been noted as interacting along the line;
5) 'transformed' figures appear to float along the line;
6) it has been depicted as going through the bodies of both figural and animal imagery;
7) it has often been closely associated with natural crevices in the rock face, as if entering or exiting the outer surface.

As this list shows, the 'threads of light' motif has a variety of attributes, yet there are constant visual signifiers that are so precise that some scholars have concluded that, based on visual attributes alone, a single artist could have been responsible for the creation of this motif (Woodhouse 1975: 125; Lewis-Williams et al. 2000: 132; Williams & Pearce 2009: 51). However, this conjecture was challenged by the physical distance between sites at which the imagery occurs (Williams & Pearce 2009: 51). Some of the sites are as far away from the south-eastern mountains as the Cederberg region (about 1400 km), although the 'threads of light' recorded lack the white dots (Lewis-Williams et al. 2000: 123).



Fig. 3. The tracing of the painted section shown in Figure 2.



Fig. 3.6. (Left-Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, RARI RSA FET3 286D. Panel. 'Bleeding threads' motif. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

Fig. 3.7 (Above)Redrawing, Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARDA. Iterations of 'threads of light' motif, after Lewis-Williams and Pearce (2009: 48 fig. 3). Note the colour legend. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

The motif as it occurs in the south-eastern mountains is meticulously executed with a strikingly uniform size across different sites, the line generally measuring 6 mm wide and the white dots at 2 mm in diameter (Lewis-Williams et al. 2000: 123). Adaptations of the motif almost always include colour variations, and in some rare instances, the lines are depicted in yellow. They do not always include the white dots, or include a variant such as linear flanks across the red line. The red line is also depicted with graphic variance as a single line, or as a parallel or zigzagging line. It can appear to attach, carry or be held by various figures and animals.

This recurring 'threads of light' motif can also be seen in the panel under discussion (**Figs. 3.6, 3.7**). It plays a traditional role in the aesthetic sense adopted here, in that it meanders through the composition at various points coming to connect with the feet of animals in the eland herd. On this panel (**Fig. 3.6, 3.7**) the left hind leg (rather than the right) is commonly attached to the 'thread of light', and one or both of the front legs are in contact with the 'thread of light'. Further investigation is needed to establish whether this association with hind legs occurs at other sites.[36] The motif also presents particularly hard edges at its arches, either at a series of vertices, 90-degree angles or straight lines (**Fig. 3.9**). There are instances where a more circular bend is apparent in the 'threads of light', but the harder edges tend to be associated with a straight or angled line. Formal attributes such as hard-edged vertices in these 'threads of light' appear to correlate with ethnographic references on the 'light' of shooting stars and their association with the 'death' of a shaman.

> When a sorcerer [sic] dies, his heart comes out in the sky and becomes a star […] his magic [*!gi.di*, deeds of supernatural potency] makes a star […]. (Bleek 1935: 24, 26; 1956: 365, cited in Lewis-Williams et al. 2000: 129)

San use of the term 'die' can be equated with 'spoil' or enter into trance, rather than referring to physical death (Lewis-Williams & Pearce 2009: 50). This 'death' is of a spiritual nature as one transcends the physical dimension or enters trance.

In the 'threads of light' motif, the aesthetic use of colour appears to simulate the movement of light. As with light, the line could be described as a dispersed mirrored reflection. However, this imagery appears to never be grounded through an axis of origin, unlike depictions from an aerial perspective. Alternatively,

[36] Follow-up inquiry is warranted into the nature of points of connection either by animal or human figures that make contact with the 'threads of light' and associated implications for this visual construct. For example, in recorded accounts of Kalahari !Kung boys' first-kill rites, the foreleg of the eland (right, if female and left if male) is cut and used to make footprints around the new hunter, or initiate (Lewis-Williams 1978: 128). The figure/line relationship along with this ethnographic reference is the inter-related configuration of footprints and hunting customs potentially reflected in the imagery. The significance of this contemporary practice may have implications for the understanding of traditional customs, and likewise, parallel meaning in certain imagery.

the origin points are located outside of the image, perhaps on or beneath the rock face. In the physical world, light travels in a straight line, except for instances when it encounters a dense object, and the resulting light is then refracted and can appear at various angles or in the form of transverse waves. Refraction reflects the change in the medium in which the light is travelling. This plausible attribute of the ‘threads of light’ referent potentially represents a pictorial construct or sign within the aesthetic lexicon. As a result, this referent may indicate a conceptual shift in the ‘bleeding threads’ iteration through a change in the formal traits.



Fig. 3.8. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3 RARI, RSA FET3 286D. Panel. 'Bleeding threads' motif. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

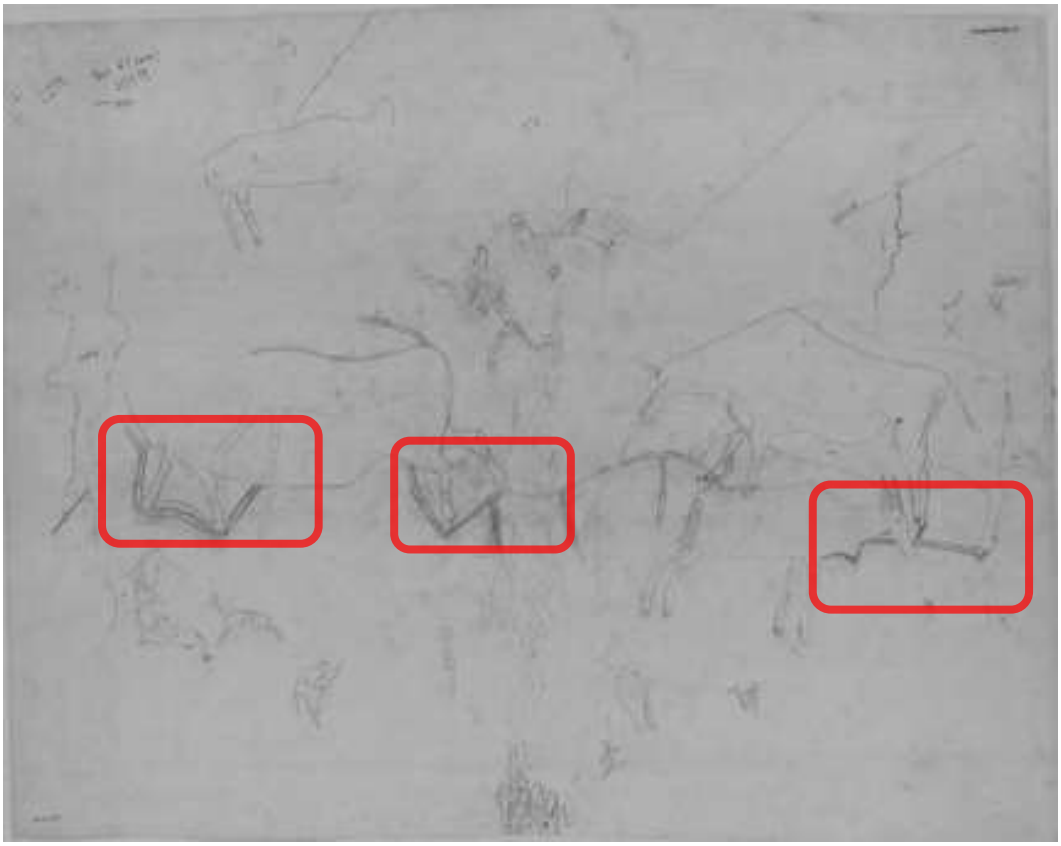


Fig. 3.9. Fetcani Glen, Barkly East, Eastern Cape, RARI RSA FET3 8T.
Tracing, detail of 'threads of light' arched vertices, 1979, Rock Art Research Institute, University of the Witwatersrand

'Bleeding Threads', an Aesthetic Pattern

The 'bleeding threads' motif is described by Lewis-Williams and Pearce (2009: 53) as 'consonant with' the bleeding human figure and bleeding eland imagery shown in the panel under discussion. This motif has been termed 'bleeding threads', proposed as a variation on the 'thread of light' or the meandering red line that is often flanked by white dots that represent visions experienced by San spiritual practitioners during trance or curing ceremonies (Lewis-Williams & Pearce 2009: 51, 53). Lewis-Williams and Pearce propose this as a possibility because of their visual similarity and proximity to the lines denoting nasal bleeding in this panel. They therefore represent both blood and light in this case. Although this interpretive conjecture is convincing, the authors do point out that more needs to be done to substantiate this idea (Ibid: 53). These visual representations of physical experiences linked to spiritual ascension are thus markers for travel across the various dimensions. Despite other examples of structural differences across iterations of

the ‘threads of light’ motif, ‘bleeding threads’ provides an uncommon aesthetic deviation of vertical lines that emanate from the ‘threads of light’.[37]

There are three iterations of the ‘bleeding threads’ motif in the panel at Fetcani Glen (**Fig. 3.10**). This motif is a variation (or design differentiation) that forms part of or expands on the ‘threads of light’ motif. It encompasses all of the features of the ‘threads of light’, but also expands them visually and semantically as lines that are ‘falling’ from the ‘threads of light’. All three of the ‘bleeding threads’ occur on the bend of the ‘thread of light’ and the two located within the calcite run sway correspondingly to the right, as if to emphasise motion. The one nearest to the eland, and unfortunately not visible in the photograph (but locatable in the drawing, **Fig. 3.10**), appears more static. It appears that the calcite, which is naturally occurring on the rock face, is particularly significant to the delineation of all of the ‘bleeding threads’ as two are directly interspersed with this infusion of white substance, while another lies just outside of the calcite tendrils on the right (Lewis-Williams & Pearce 2009: 48, cf. fig. 3; **Fig. 3.10**). It is as if the interaction with the calcite is causing movement coming from centre-left.

The ‘threads of light’ motifs present subtle variations, for example, white dots above and between the lines or single red lines with white strokes instead of dots. The ‘bleeding threads’ iteration seems to constitute a distinct form of the motif also in its use of colour. The syntax of the individual figures at the site, and of this motif specifically, has been explored through a syntactical framework. This framework is set up in terms of different relationships between the rock face such as scenic relationships, juxtaposition, conceptual relationships and superpositioning (Lewis-Williams & Pearce 2009: 53–55).

[37] Another example of the ‘bleeding threads’ motif has been observed at a site in the Herschel district, Eastern Cape, although Lewis-Williams and Pearce do not provide much detail (Pager 1975: 79).

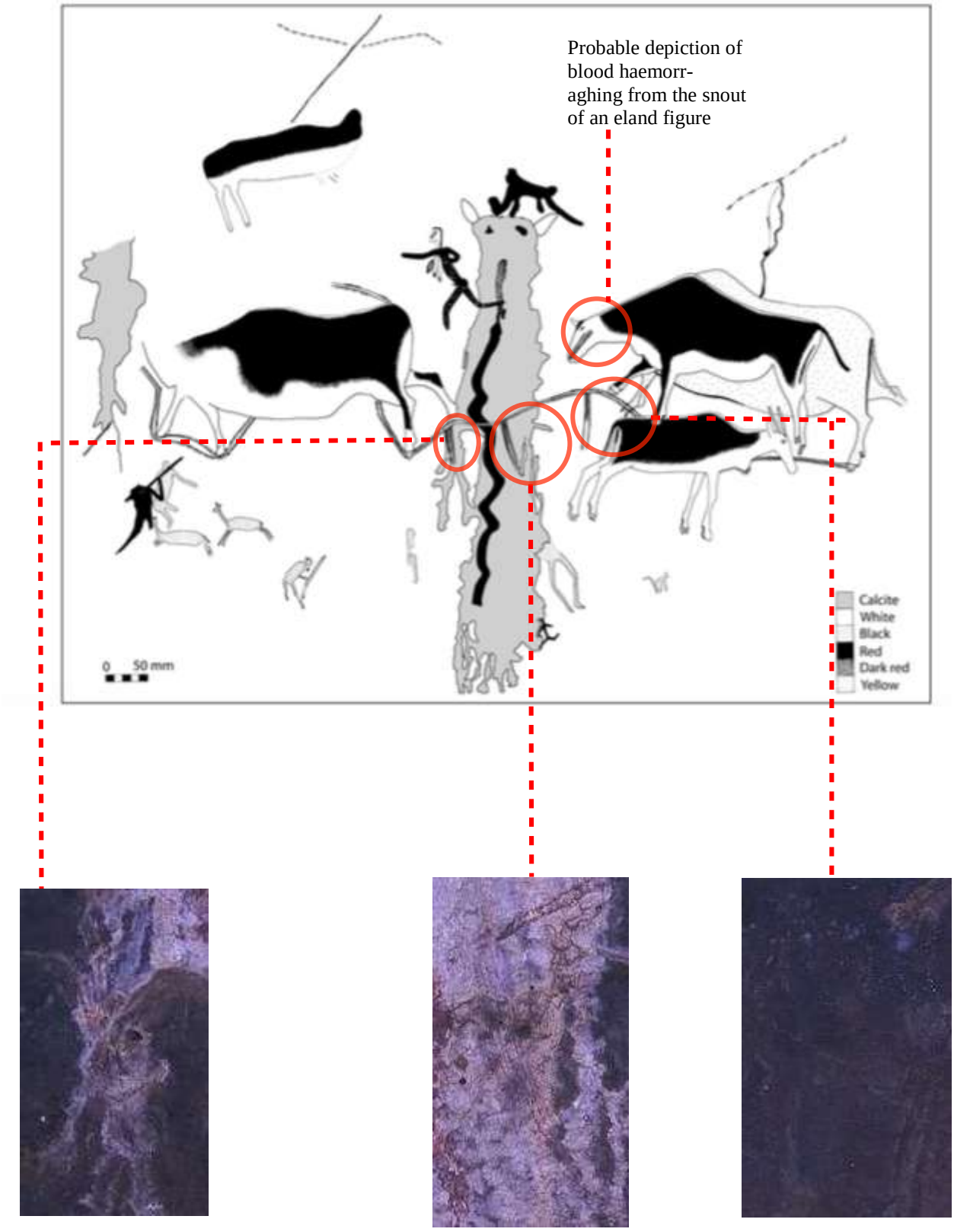


Fig. 3.10. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARDA. Iterations of 'bleeding threads' motif, after Lewis-Williams and Pearce (2009: 48, fig. 3).

Despite the distinct colour variance as a nuanced aspect of this instance of the motif, its coloured qualities, as well as the colours of the panel as whole, remain outside of previous analysis and interpretation. However, the inclusion of colour within the analysis could potentially uncover a more nuanced understanding of the 'bleeding threads' motif and the 'threads of light' referent. There are four major areas of divergence in the 'bleeding threads' iteration that require a closer look. They comprise variations in the colour red, gestural colour application, colour perspective and pictorial colour positioning. The presence of black, white and red across this panel is also considered.

Variations on the Colour Red

The slightly darker red and white perimeter dots of the standard 'threads of light' motif suggest more tangible structures such as a rope or rod, where the lighter red and naturally occurring white of the calcite run appear fleeting. In the 'bleeding threads' derivative, they convey greater fragility and ethereality (**Fig. 3.11**). A slight shift in colour tone, line width and juxtaposition with other colours changes this perceived differentiated volume. Distinct changes in the application of colour in the 'bleeding threads' motif include parallel red lines emanating from the 'thread of light' as they enter and exit the existing calcite formation on the rock face. The 'threads of light' motif is depicted as angular and solid, rigid in its connection with the rock face which is in contrast to the sinuous fringes of the 'bleeding threads' that appear to sway. This links to the aesthetic allocation of the motif as a distinguishable visual construct, which includes an elaboration that exceeds the motif (**Fig. 3.10**). This change is related to the motif's placement on the rock face, visually alerting us to the relationship of the painted imagery to natural manifestations already present in the rock. Colour changes that occur within this variation of the motif are additional pictorial markers for a shifting design which can indicate a corresponding shift in meaning.

The 'bleeding threads' motif has been associated with and named after red lines that emanate from the snout of an eland figure (**Fig. 3.12a**) interpreted as probable bleeding (Lewis-Williams & Pearce 2009). As Lewis-Williams and Pearce have observed, this imagery is visually comparable with the bleeding figure and eland present elsewhere in the composition (Lewis-Williams & Pearce 2009: 49, fig. 4). However, a closer look at the aesthetic organisation and colours of the 'bleeding threads' motif would suggest a more nuanced understanding. The stiff lines that typically accompany animals imbued with potency are very different from the fluid lines of the 'bleeding threads' motif that suggest fragility and motion (**Fig. 3.12a, b**). A significant incongruity in the quality of the red colour of the lines described above also adds to this subtle shift.

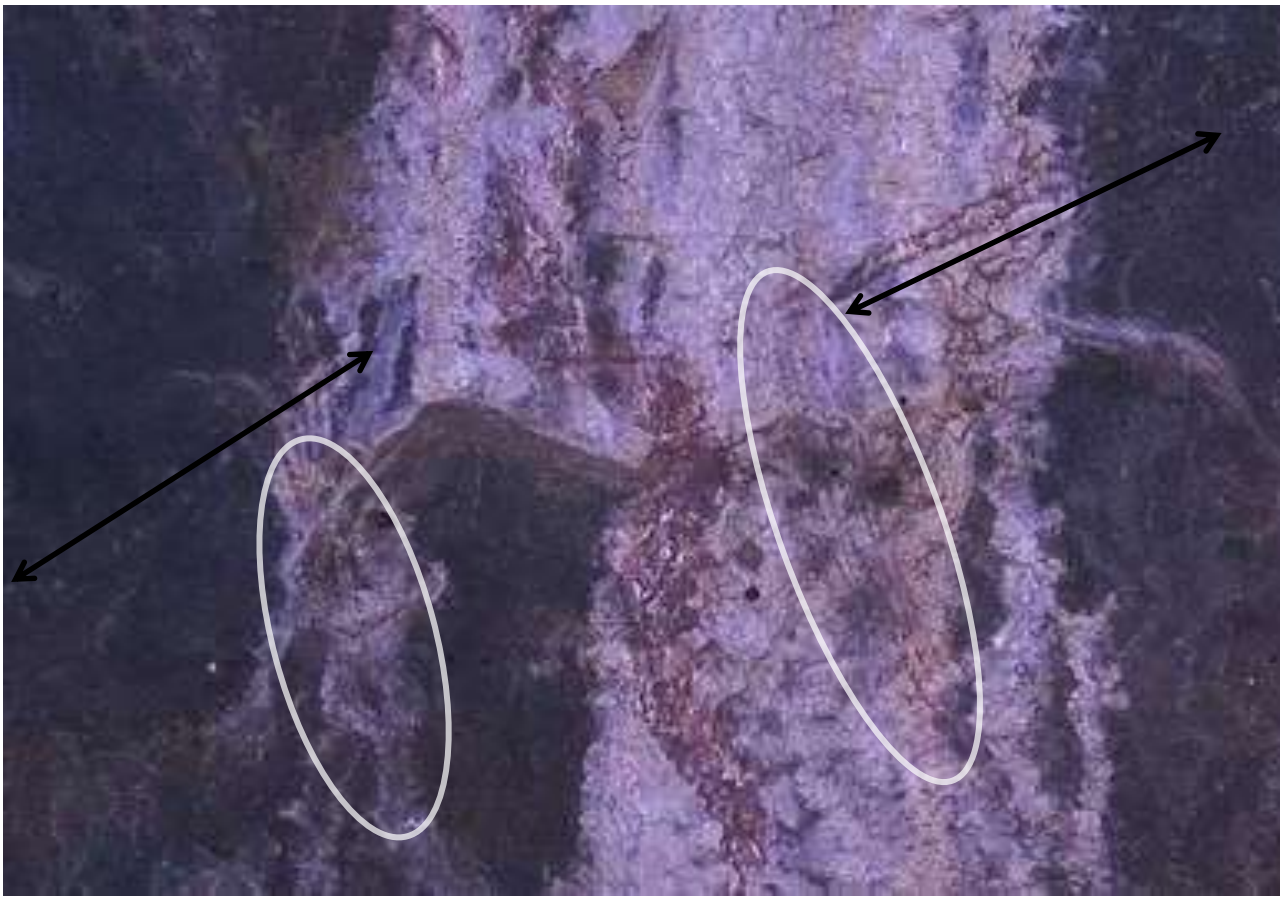


Fig. 3.11. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Detail of 'threads of light' motif in contrast to 'bleeding threads' ethereality. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

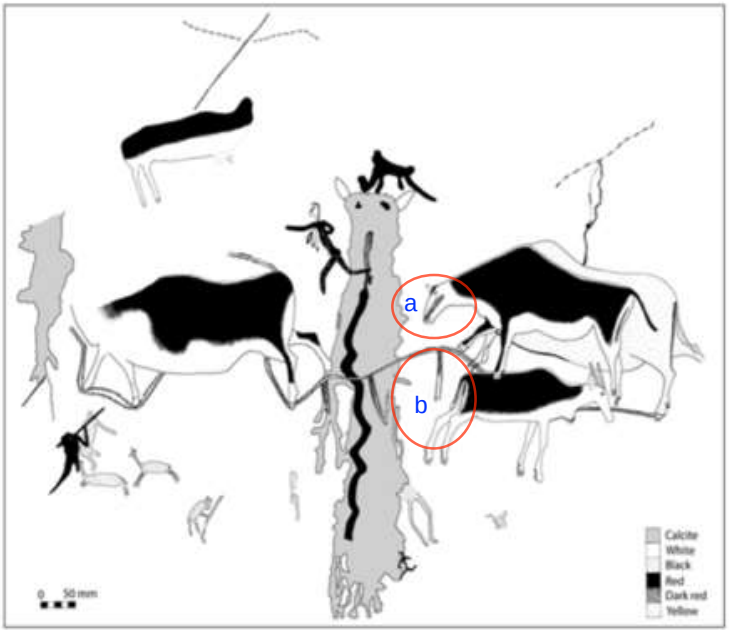


Fig. 3.12. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARADA. Two iterations of 'threads of light' motif, distinction in a) animal haemorrhaging, and b) 'bleeding threads' motif, after Lewis-Williams and Pearce (2009: 48, fig. 3).

The colour red can be further examined as an active element in the aesthetic design at work here. Earlier in the analysis, it is noted that the 'threads of light' can be depicted in red, white or (more rarely) yellow, yet the 'bleeding threads' are always depicted in red. If we apply the colour principles drawn from the ethnography, red, in addition to its association with blood could also denote something about the age, maturity or stability of the thread, with 'old' threads more likely to break than 'new' ones (Katz et al. 1997: 108; Lewis-Williams et al. 2000: 130). Travel through dimensions may similarly allude to the categorisation of the stars, with 'red' as old and white as 'young'. For those lines that are in other colours, this may imply a new context or meaning. Perhaps the colour references drawn from the ethnography can indicate the viability of such ropes as worn or new.

The ethnographic material that is provided by Lewis-Williams et al. (2000) is extensive and attributes the 'threads of light' as a visual indicator to distinct modes of travel in the spiritual realm. While much of the ethnographic material used to support the interpretation of the motif comes from twentieth-century sources (e.g. England 1968; Biesele 1978, 1980; Katz et al. 1997; Keeney 1999; Lewis-Williams et al. 2000: 130–131), this study is particularly interested in the nineteenth-century material taken from the Bleek and Lloyd archive, especially given its pronounced intertextual associations of colour. One excerpt describes a falling star as related to the death of a shaman (Bleek 1935: 32):

> When a sorceror [sic] dies, his heart comes out in the sky and becomes a star [...] his magic [!*gi.di*, deeds of supernatural potency] makes a star. […] Then a star shoots (falls) [|*xi*, to shoot as with an arrow or a gun; Bleek 1956: 365], for a sorceror […] has really died. (Bleek 1935: 242, 6; square brackets indicate editorial insertions by Lewis-Williams et al. (1990: 129), and round brackets indicate parenthesis in the original text)

When one considers the descriptive role of stars in this excerpt, another dimension of meaning becomes apparent. In looking for further colour references contained within this nineteenth-century archive, numerous affiliations between stars and the accumulation of time are available, with specific association of red with old or mature, and white with young or new:

> She threw up a scented root (eaten by some Bushmen) called !*huin*, which became stars; the red (or old) !*huin* making red stars, the white (or young) !*huin* making white stars. (Bleek & Lloyd 1911: 76)

The reference equating shamans and stars laid the foundation for twentieth-century ethnographic resources to be employed to solidify the meaning of these 'threads of light'. The twentieth-century

ethnography, in short, includes references to the Ju|'hoan perception of shooting stars as the 'vehicles for the return of medicine men's souls to earth' (England 1968: 432 quoted in Lewis-Williams et al. 2000: 129). The Ju|'hoan concept of 'thread of the sky' refers to a pathway (Lewis-Williams et al. 2000: 130; Biesele 1980: 56, 61) and the opening of the spirit world (Katz 1982) enabling the capacity for travelling along these threads, or the experience of being in the spirit world. The concept equated to seeing a beam or shaft of light as conveyed by Komtsa Xau, a shaman from |Kae kae in Botswana (Keeney 1999: 105 as quoted in Lewis-Williams et al. 2000: 130). These 'threads of light' may relate to the notion of a shaft of light created by a falling star (Lewis-Williams et al. 2000: 130). Their physical manifestation in the rock art, apparently painted most commonly in red and white, also makes sense in relation to the consistent use of colour references in the ethnography to denote maturation and growth, related to stars among other natural phenomena. The beams of light are thus linkable to stars, and the stars are explicitly described in the archive through both expository and analogical terms.

The visible representations of the 'threads of light' motif in the rock paintings are almost always depicted in some variation of red and white. Likewise, the |Xam ethnographic references explicitly denote these two colours at the origin of the creation of stars and a characteristic of their maturity. Moreover, the 'bleeding threads' variation retains aspects of this colour code, red and white, which may suggest retention of core content or meaning. The parallel between red/white representation of stars in the text and red/white possibly star-related paths in the rock paintings may be significant. This parallel brings colour-linked associations of youth and maturity into the existing interpretations of these lines as vectors of travel to and within the spirit world.

Although the colour specificity of the stars in the ethnography includes both red and white, a contrast apparently mirrored also in the depiction of 'threads of light', the 'bleeding threads' appear in red only, with slight variations. White is often used as a tool of emphasis, as in the white dots or lines that flank the designated red line on the 'threads of light'. It is also used as a point of contrast in natural configurations already present on the rock face visible in the 'bleeding threads'. Pictorially, the tandem use of these two colours, either painted or established through natural geological features, is evident. However, it is within the deployment of red that we encounter a pictorial shift. The referent 'thread of light' is rendered as a solid rod or shaft most likely alluding to something akin to the 'beam of light' described in the ethnography, possibly correlating then with the actual movement of the light of a falling star and the materiality of this light. The 'bleeding threads' motif, on the other hand, is crafted in a way to convey motion and movement.

While 'red' is critical to the pictorial representation of the 'thread of light', white is a subsidiary and supporting colour. The sharp angles with which these are illustrated within a composition contrast with to the fluidity of the 'bleeding threads', establishing a conceptual counterpoint and variance from the referent

for possible meaning. This fluidity may be an expression related to water, as ethnographic references often pair the shaman's light with water-pits. Perhaps there is some conflation of a shaman's potency with a star's light, further extended as a metaphor for water. The intertextual reference to a water-pit (L VIII.-23. 1878: 8071), in some cases, is included in the archival records on stars. This further extends the reference used by Lewis-Williams et al. (2000: 129) to establish the 'thread of light' interpretation, and supports my highlights of colour concepts conflating stars and water-pits:

> At the death of a sorcerer, his heart falls (as a shooting star) out of the sky and goes into a waterpit. The doings and power of sorcerers, etc. (L.V.-19. 1875: 5483–5505). Falling stars go into the waterpit and sound like the rain; sorcerers' hearts also fall down from the sky and go into the waterpit with a thundering sound; the customs of sorcerers. (Summary L.V.-19. 1875: 5483–5505).
>
> For our mothers used to say, if a sorcerer dies, his heart falls down from the sky; it goes into the waterpit. Our (5483) mothers used to say, that when the star falls down, it goes to the waterpit into which it means to get, [he does this to] the magic power […] (5484). (L.V.-19. 1875: 5483, 5483; BC_151_A2_1_068).
>
> […] our mothers used to say, the stars' yonder, we see them. They make fire's sparks. […] The star's light is fire (5482 rev.) […] stars fire alway(s) when it falls, does not arise, for it has fallen from the sky. It goes into the pond […] (5483 rev.). (L.V.-19. 1875: 5482, 5483 rev.; BC_151_A2_1_068, note; parenthesis my notation).

It is also interesting to note that stars are reflected in water, so they do literally go into the water and alter its appearance, turning it into something luminous and colourful, which reinforces the colour/liquid/light connection. Furthermore, Biesele (1993: 80) makes note of the pervasive balance of cool and hot and the importance of this harmony in various contexts: 'The symbolism of heat and coolness and the operations that transform one into another appear over and over in individual, social and supernatural contexts.'

In an attempt to draw colour concepts, correspondence between 'beams of light' and the archival intertextual association to stars may be represented through the 'threads of light' motif, and the patterned variation 'bleeding threads' might be analogous with bodies of water. Further, star light is referenced in the ethnography as fire denoting the essence of heat, while the bodies of water plausibly relate to the 'bleeding threads' denoting coolness. This correlation is extended further, to include the colour distinction of red descriptively and conceptually in the archive. The |Xam word !*kiya* is used for 'red' and 'bright' or 'light', conflating the colour term and the articulation of light (L.II.-18. 1669). The basis of the 'threads of

light' motif and its patterned iteration 'bleeding threads' could very well be rooted in the core colour concepts of maturation, vectors of spiritual travel, stars and bodies of water.

Due to the application of the aesthetic motif and pattern relationship, the isolation of a place of divergence in the imagery may be signalled through the slight variance in the application of colour. This contrast between stability and ephemerality in the deployment of red denotes a potential shift in meaning. Further investigation into the ethnographic records contextualises the 'threads of light' motif, elucidates the variant 'bleeding treads' and shows a plausible association with conceptual markers such as rain, water, water-pit, and pond. This correspondingly relates to the divergence in the characteristic sense of motion in the 'bleeding threads' motif. There is a suggested relationship between stars, shamanic potency, blood, water and rain, also in terms of the coloured dimensions of these phenomena.

Gestural Colour Application

The red monochromatic lines that constitute the 'bleeding threads' motif appear uniform at first glance, but upon closer examination each stroke can be seen to comprise thick and thin segments. This design choice inevitably affects the space in between parallel lines, which has the effect of conveying movement. This kind of optical play with line and colour is reminiscent of the devices used in the OpArt movement of the mid-twentieth century by artists such as Bridget Riley (**Fig. 3.13**). These artists manipulated the space between repetitive lines to communicate movement by projecting and receding the same line in concert with surrounding lines. There is an impression of volume and shimmer that is created from the S-shaped curving of the lines, and the illusion of grey coming through where the lines appear closer together. Similarly, some lines merge in the 'bleeding threads' motif while others part, creating volume (**Fig. 3.14**). This gestural application of line is in direct contrast to the hard edge linear strokes used in the 'threads of light' motif, and directly uses a shift in colour as a point of divergence.

Motion, as described earlier, is a distinctive aspect of the depiction of the 'bleeding threads' motif. Lewis-Williams and Pearce (2009: 53) have surmised that this motif resembles the bleeding of animal and human figures interpretable in relation to trance and potency. Movement can be observed in addition to these associations. The motion convincingly indicated in the sway of red lines contrasts with the short linear lines on the eland that have been interpreted as the haemorrhaging effect associated with trance and potency (**Fig. 3.15**). The way these lines are depicted may also denote a kind of movement; a spurting, gushing or flowing of liquid or energy. Technical facility with the medium (paint) on the textured surface of the rock face is required to create the delicate sway of the fine red lines that emanate from the 'threads of light'. This pictorial detail is most evident in both the central and left cluster of 'bleeding threads' that is located within the area covered by the calcite run (**Fig. 3.15**).

While the variance in line length and thickness is a slight visual detail as highlighted above, it has a potential impact on context and meaning. Lewis-Williams et al. (2000) provide extensive ethnographic material to support the interpretive content for the ‘threads of light’ as a visual representation of spiritual travel. Some of the archival references they cite are reviewed with questions of form and colour in mind.

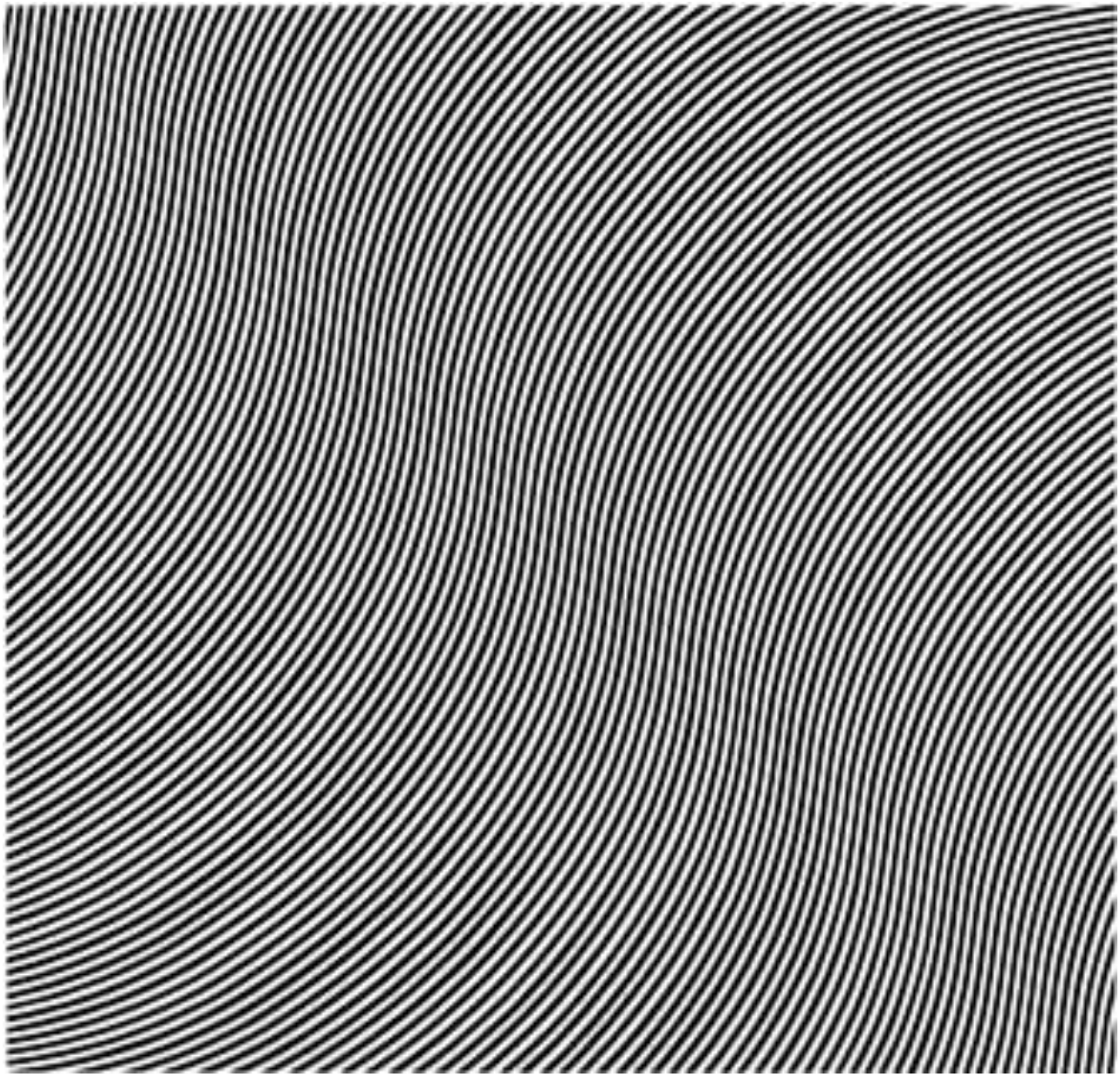


Fig. 3.13. Bridget Riley, *Over*, 1966. Collection of the Scottish National Gallery of Modern Art



Fig. 3.14. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Detail of slight merging and converging lines to create volume in the 'bleeding threads' motif. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

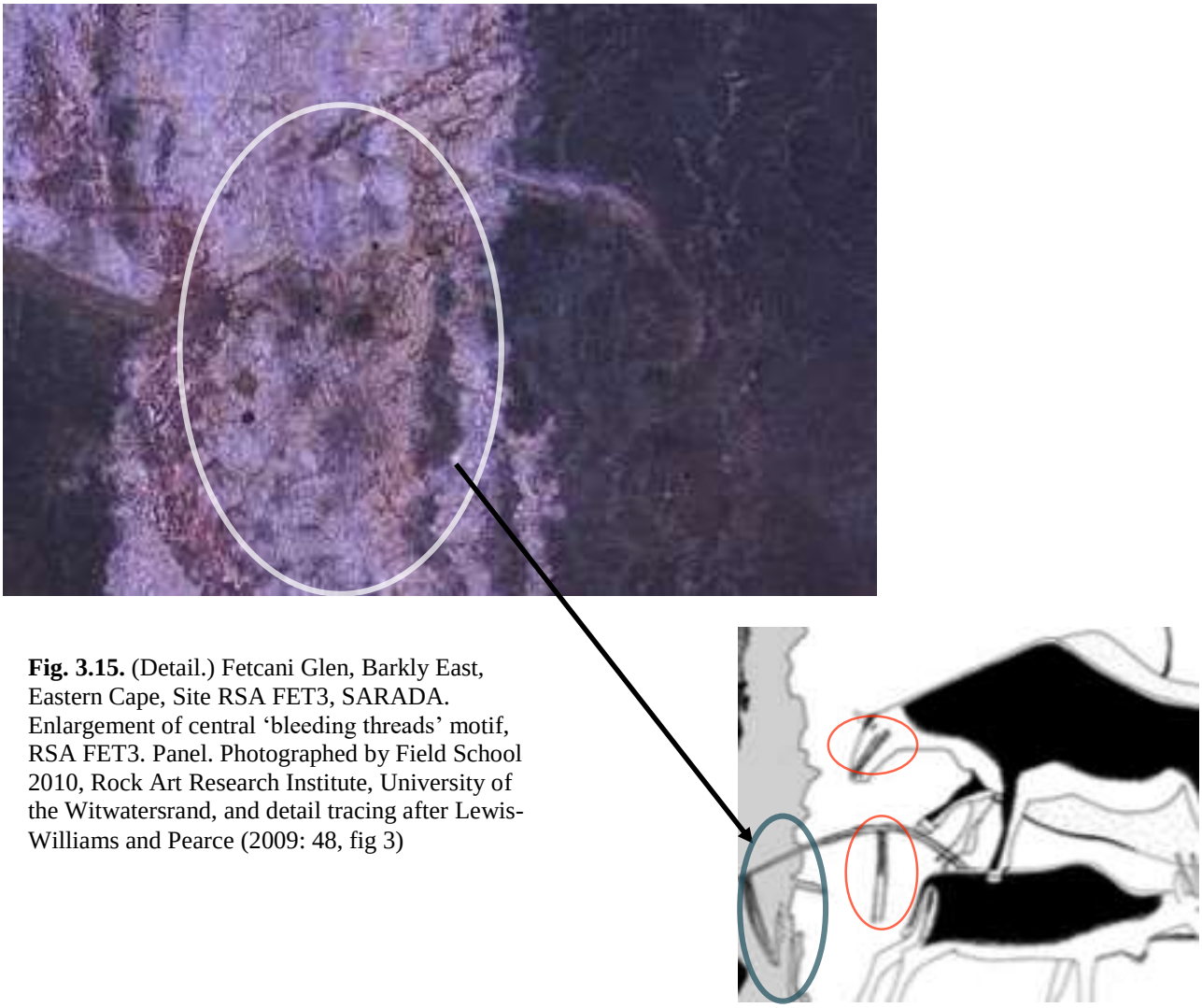


Fig. 3.15. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3, SARADA. Enlargement of central 'bleeding threads' motif, RSA FET3. Panel. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand, and detail tracing after Lewis-Williams and Pearce (2009: 48, fig 3)

For example, they observe that 'ease of movement is also suggested by the statement that, if the thread is a new one, "you just travel with it"' (Katz et al. 1997: 108; Lewis-Williams et al. 2000: 130). This fluid action or movement is further reinforced in the statement, 'You don't have to grab or touch it. You just float away with that rope. That line just takes you,' by Mataope Saboabue, shaman from Zutshwa, Kalahari Desert (Keeney 1999: 62, quoted in Lewis-Williams et al. 2000: 130).

While the placement of the 'thread' in reference to the conventional 'threads of light' varies, the subtle motion of the 'bleeding threads' corresponds to the references above regarding the 'line' or 'thread' mitigating the movement of its traveller between spiritual realms. It is tempting to make a connection between the motion suggested in the visual depiction of the 'bleeding threads' motif and the spontaneous floating dynamic suggested in the quotes. Furthermore, the creative design and ethnographic record may link the transition from one kind of substance (light/air) to another (blood/liquid), as suggested in the transition from threads of light to threads of blood. The link between light and liquid is suggested in the

archival references cited earlier around the conflation of sky and water through the trajectory of a star (1875: BC_151_A2_1_068, L.V.-19. 1875: 5483, 5483; 1875: BC_151_A2_1_068, L V.-19. 1875: 5482, 5483). The red colour is one of the means by which this shift is possible; one that may signal the shift.

Colour Perspective

Perspective plays a vital role in the aesthetic organisation of the 'bleeding threads' motif and its function as a variation of a recurrent motif. The horizontal meandering delineation of the 'threads of light' motif serves as a visual cue connecting disparate aspects of the composition through an angular emphasis where the line is articulated and changes direction. The 'bleeding threads', on the other hand, are clusters of vertical lines that are perpendicular to the thread of light appearing to fall from it (**Fig. 3.16**). These red lines are not in any simple sense variations on a 'motif', but something of a change in direction suggesting more shape-shifting and variability in design, visual function and meaning. There is a change in a complex compositional perspective that functions through multiple axes, including one that sits perpendicular to the rock face and thus effectively outside of it. This change is alluded to in the opening quote of this chapter by Lewis-Williams (1992: 27): 'In addition to the right-left, up-down axes of composition […] there is another that runs at right angles to these.' In this context, perspective is created by means of points of origin that may be located outside of the painted imagery. Perhaps the origin points are on or behind the rock face, with colour playing a key role in the creation of this spatial framework.

The singularity of the 'bleeding threads' motif is that it is often devoid of foreground and background. The organisation of spatial order through the planar surfaces of the rock face is evident throughout the composition and may originate from the angled vertices of the 'threads of light' and the 'bleeding threads' extension. While linear perspective is a western system devised to convey a sense of illusion, non-western cultures have often employed methods of collapsing spatial reality into a two-dimensional projection through various viewpoints. These entry points may be an attempt by the artist to reorganise images to make them representable, in spatially ordered and expansive ways through opening pictorial as well as conceptual spaces. Among other spatial principles discernible in San art is the apparently conflated foreground and background, which is a significant aspect of composition that could also be investigated further through other examples.

Coloured Pictorial Positioning

Through its interactive pictorial positioning, colour is in conversation not only with 'scenic relationships' defined as action-related connections that hold groups of figures together (Lewis-Williams & Pearce 2009: 54), but also with the natural occurrences on the rock face, be it crevices that anchor perspective or natural substances that convey a level of importance. In the 'threads of light', the use of red and white

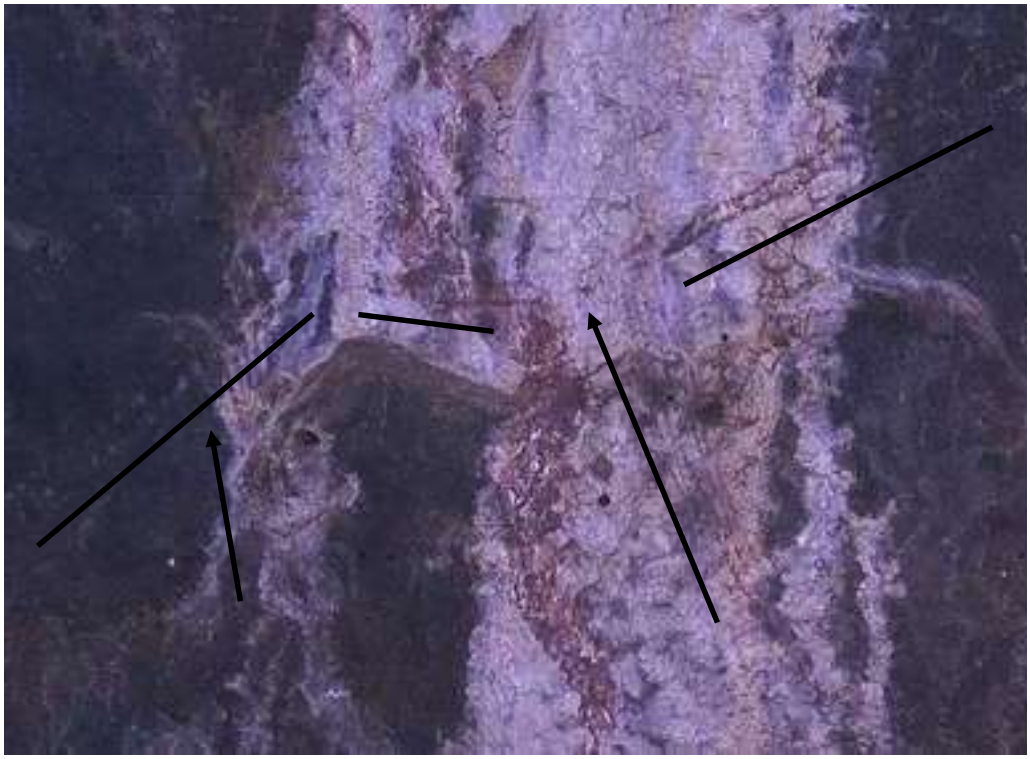


Fig. 3.16. Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Detail of perpendicular axis of 'threads of light' motif in relationship to 'bleeding threads'. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

against the crags and shadows of the rock face may be a visual indicator representing the shimmer or transmission of light.

In relation to pictorial positioning, the 'bleeding threads' are distinct, representing the fringes that appear to drape across the main 'thread of light' as if peripheral to the overall image. This extension appears to be compositionally related to the calcite run and could be conceptually related as well (**Fig. 3.16**). The design is consistent with the general principle that certain motifs can move through the rock surface into the world beyond it, to re-emerge from it elsewhere in ways that make sense scenically but also metaphorically. For example, the main 'thread' appears to pierce the rock surface and then reappear before joining with the subsequent fringe on the far left in dissonance with the rock face and calcite feature (**Fig. 3.17**). These lines appear to create a rupture-like entry point through the hard surface of the rock canvas. Based on close visual analysis and ethnographic context, this visual device has the effect of creating space to access the spiritual veil of the rock face and perhaps harness the resulting energy.

An additional component of pictorial colour positioning potentially used as an aesthetic device in the 'bleeding threads' pattern is compositionally related to the 'threads of light' motif. The 'threads of light' in the panel under discussion draw the viewer to the 'bleeding threads' through colour. A dramatic shift is

produced visually in the directional perspective of the ‘threads of light’ as it approaches the calcite run and ultimately the collection of three ‘bleeding threads’. It is this shift made through colour contrast that signals a change in the visual vocabulary. As the ‘threads of light’ enter and exit the calcite run (**Fig. 3.18**), they visually prompt the viewer to anticipate transformation. Optically, this shift is achieved through the subtle appearance in the ‘thread’ from an almost transparent designation against the dark background of the rock surface, and in relation to the calcite run. The opaque red line is similar in hue to the dark reddish surface of the rock face and therefore reads as transparent due to the optical illusion of monochromatic colour-matching, also suggesting that the lines are emerging from the coloured surface of

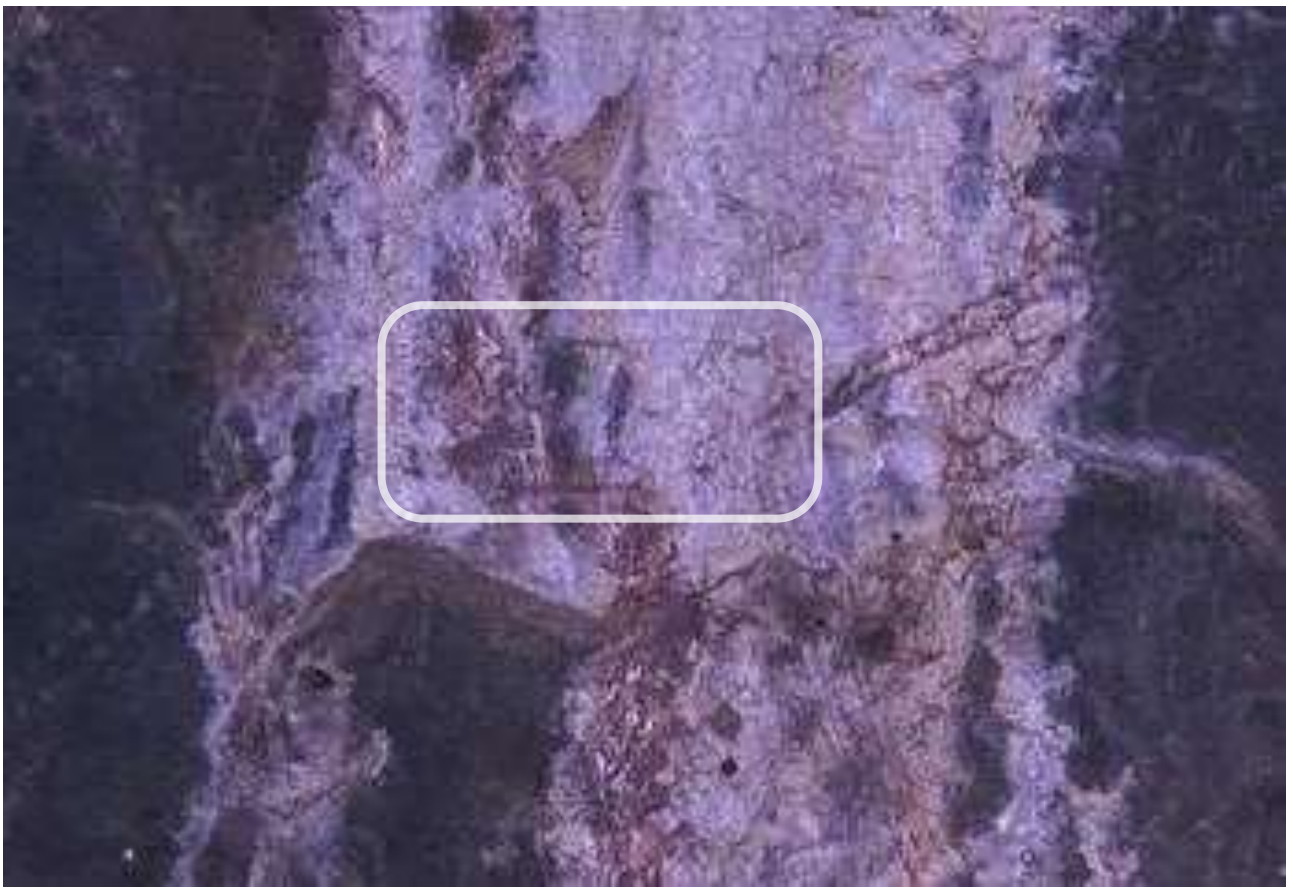


Fig. 3.17. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Enlargement of central and left ‘bleeding threads’ motif (one near eland not visible, cf. Lewis-Williams & Pearce 2009: 48, tracing). Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

the rock itself.

In one instance, several ‘threads of light’ transition between a naturally dark background and a light one. The role of the background colour in the reading of the line is a congruent design element of both the ‘threads of light’ motif and the ‘bleeding threads’ pattern. The colour of the line itself does not change in

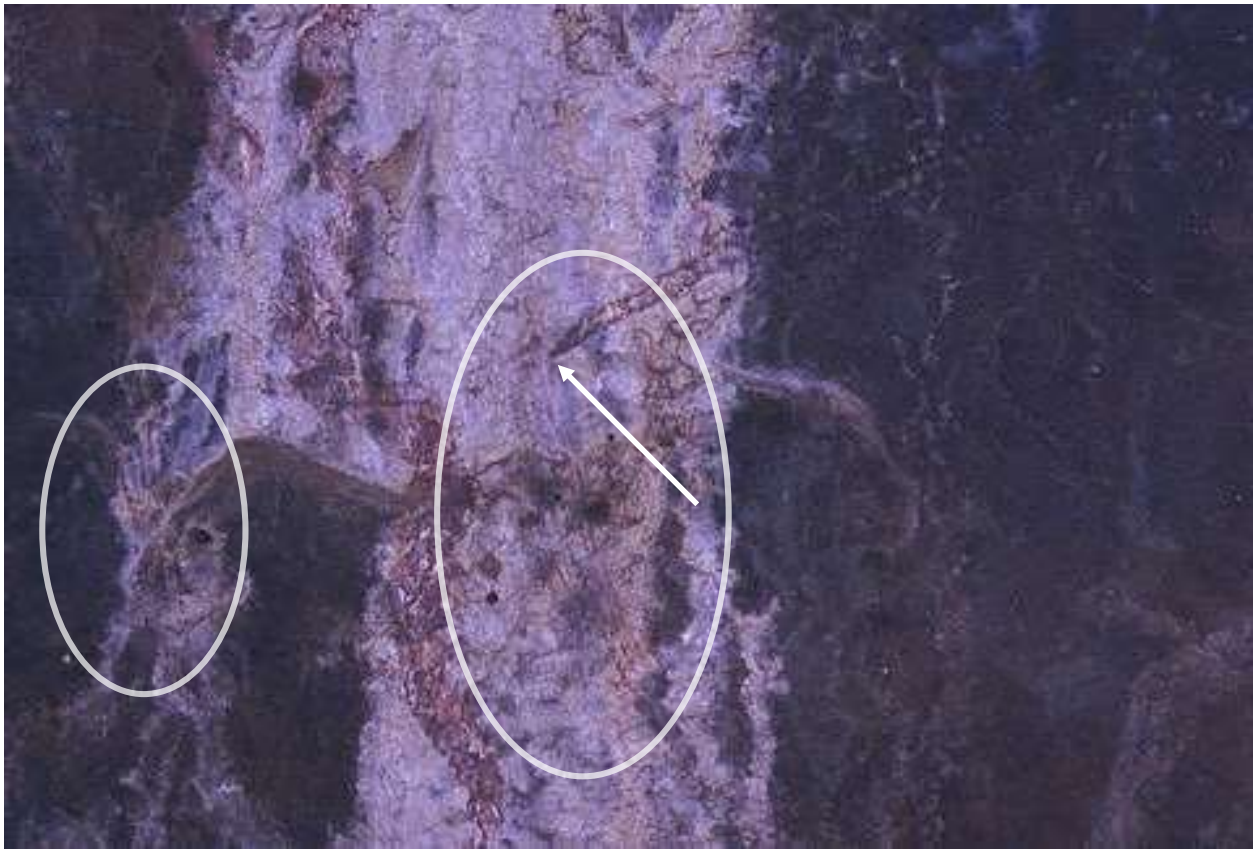


Fig. 3.18. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Enlargement of central and left 'bleeding threads' motif (one near the eland to the right of central 'bleeding thread' not visible in this photograph, cf. Lewis-Williams & Pearce 2009: 48, tracing). Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

hue or value but appears different when considered against a light or dark background. Against the dark background, the line recedes, where the white background pushes the 'thread of light' to the foreground.

A detail from this panel (**Fig. 3.19**) suggests that the artist accentuated a red line against its brown-reddish background colour of similar darkness by placing a row of white dots along its edge. Based on the archival records, it cannot be said with certainty whether these dots were painted deliberately, or whether they are a natural artefact[38] of the changes this panel has undergone—for example, a mineral crust (Watchman & Mazel 2003; Bonneau 2012 et al.). On another section of the same motif, the artist has chosen to place the white dots along the outer perimeter of the red outline of the 'thread of light' to establish a linear dimension and emphasise its difference in relation to the background (like a shadow). As the line enters the white background, the dots are removed or placed within the red outline (**Fig. 3.19**). However, one cannot, with certainty, establish whether dots are included, or whether the white substance is a part of the calcite formation. This may be an aesthetic device enhancing atmospheric perspective.

While the red hue of the 'thread of light' is a constant, the background changes from dark to light, and the accent colour white shifts from the perimeter of the red line, depicted in dots, to within the linear designation of the line. This appears to be done either through deliberate painting (small flecks are detected, but may be the desecration or crags in the rock surface) or the artist's recognition of the calcite run. The use of dark and light background colour has a deliberate effect on the viewer's perception of depth through colour.

These aforementioned examples present patterns of pictorial colour positioning that are discernible in the interaction of the 'bleeding threads' pattern with the rock face. There are subtle elements of difference in the design of the 'bleeding threads' and the rock face substrate. These include compositional perspective, recognition of spatiality and the role of colour in scenic relationships. All of these threads occur in close proximity to small steps or crags in the rock surface, of which many are visible either through a slight colour change or shadow, or through a bump or raised facet of the rock face. These details re-examined with a focus on the formal attributes also allow a reconsideration of water-holes discussed above and key references included by Lewis-Williams et al. (2000), indicating a relationship between threads and entrances:

> Shamans undertake this perilous effort in order to locate an opening along the 'path'. It is this 'opening' through which they enter into 'the inner world of mysteries' (Katz et al. 1997: 112). The 'opening' is the threshold, the liminal area, between the material world and the spiritual world 'beyond'. (Katz et al. 1997: 112; Lewis-Williams et al. 2000: 129).

[38] Archival copies and published research have been central in this analysis. This points to the important role of the archive in establishing a convincing interpretation.

> I'm climbing threads the threads that lie over in the South. […] I take them and climb them. I climb one and leave it, then I go climb another one. Then I leave it and climb on another. Then I follow the thread of the wells, the one I am going to enter! The thread of the wells of metal. (Old K"xau, Ju|' hoan shaman quoted in Biesele 1980: 56, 61; Lewis-Williams et al. 2000: 130)

Lewis-Williams et al. (2000) further emphasise the 'path' and its correlation to the 'threads' and the concept of falling stars and cords from heaven, as previously ascertained by England (1968: 431, 432), but they do not extend this to an examination of the physical texture of the rock. Yet the materiality of colour is in deliberate interaction with incised steps, crags and shadows, which may have been incorporated into the painting as openings (physical and symbolic). The reference to 'opening' or 'entering' may seem peripheral to a discussion focused on travelling along the 'threads of light'. On the contrary, these terms are congruent with the 'act' of travel; they may represent the approach before or after travelling the 'threads' and might address the over-arching purpose of the journey. Perhaps, it is the initial exit from the 'threads of light' that is indicated visually. Pictorially, the colour *is* the 'thread' which reinforces the materiality of the painting, not always fully addressed in the purely analogical links made between things depicted and references in the ethnography. It makes one wonder if that is not precisely why there are all these depictions of threads here, because of the brokenness of the rock's natural topography and the presence of the calcite run. The lines may have been placed there in order to activate the irregularities in the rock as entrances, portals or passages.



Fig. 3.19. (Detail.) Fetcani Glen, Barkly East, Eastern Cape, Site RSA FET3. Panel. Photographed by Field School 2010, Rock Art Research Institute, University of the Witwatersrand

The Triad as an Aesthetic and Formal Device

The observations so far have been primarily centred on variations of red as it is the main paint colour of the motif under consideration. However, several instances of colours interacting with one another are visible, and one such dynamic configuration of colours is made up of the three hues in a triadic relationship. The 'bleeding threads' motif of the Fetcani Glen panel appears to integrate the triad through subtle principles of colour theory incorporated through both design and symbolism. The natural colouring in the rock face also forms an integral part of the imagery. The shadow and light qualities of the rock surface appear to work in tandem with the supplementary colour of the painted imagery, which seems to be strategically placed so as to convey depth. The rock surface colours in black are also accented here by the marked shadows created by grooves in the surface. The colour white is present in the rock surface through the naturally occurring calcite run. The red paint applied on top of these naturally occurring colours may be employed as a formal technique of colour balance. Black and white create contrast, while red creates a point of distinction. In addition, this colour-modelling scheme appears to convey dimensionality through colour relationships. The imagery is anchored from within its own range of value, and its scenic relationships are already prompted by the natural colour scheme of the unpainted rock surface. Whereas redrawings don't usually include natural features except where these intersect with the painted imagery, the calcite run is included in this case because it is such an integral part of the figurative imagery; it is a natural feature effectively turned into a figure. This does reflect some recognition of the importance of the natural features, but the rock face plays a more active role than this suggests, as the analysis shows, including by virtue of its colour.

This interplay of background and foreground, recession and advancement are distinct aspects of the aesthetic design that employs the colour combinations of the triad. A pictorial push-and-pull forging aspects of the imagery forward while pushing others back is carried out through the trichromatic use of black-white-red. While the outward appearance of a particular paint mixture could be taken at face value, a purposeful analysis of the aesthetic components reveals a rich palette of colour that not only includes those paints placed onto the rock surface by the artist, but those that occur naturally in the rock face and at the interface between the two.

The Interface Between Colour Patterns and Aesthetics

The mechanics involved in the theory of colour perception can help to further decipher some of the numinous qualities of San aesthetics present in both the 'threads of light' motif and 'bleeding threads' pattern. Colour theory is based mainly on the physiological premise of our visual perception. In his book, *Interaction of Color* (1963), Albers made great strides in making the science of colour accessible to his students at Yale and the general public. In addition to his theories about colour, he includes colour

studies that were completed by his students as part of an effort to have them gain theoretical knowledge about colour through practice. It is through these exercises that the facets of colour play and optics can be seen as challenging our notion of colour as a stand-alone hue. Instead, it is established as an illusion of infinite variance in constant conversation with other colours.

This analysis of colour highlights its multifaceted use demonstrated as a compositional device. The ability of colour to reveal patterns as well as employ divergent design systems might be seen as a way to convey colour concepts. The aesthetic, in a pictorial sense, might operate through a motif as a recognizable visual construct, although its design can proliferate at an infinite level of possibility. This is consistent with the creative realm of the numinous and incalculable and is potentially illustrated in the 'threads of light' motif. Through an examination of this single panel, the design variation across a cluster of related motifs is polysemic and can take numerous constructions that are both within and out of the reach of our imagination. The polysemic understandings of this panel are already explored by Lewis-Williams and Pearce (2009). However, even within the scope of the incalculable, an aesthetic codex is incorporated. This has centred the analysis on both the specific patterned particulars and wider design context of the motif. This allows the range of analysis to incorporate the iconographic sector, a sequence of designs that may point to some semblance of meaning.

SUMMARY

The aesthetic analysis of the 'bleeding threads' motif shows the potential overarching significance of social concepts of the triad as transitory and relational. The 'bleeding threads' motif is a rare transformation of a recurrent motif. It is a motif that has been explored in this chapter through variations on the colour red, the depictive element of motion or movement through gestural colour, interaction with the rock surface through colour perspective, pictorial positioning and the triad. Variations on the colour red have informed an analysis of aesthetic patterning. The slight colour variation might signal a change in meaning. Ethnographic references on the 'threads of light' motif and patterned iteration 'bleeding threads' might be rooted in colour concepts of maturation, vectors of spiritual travel, stars and bodies of water. The element of motion was also explored as a potential aesthetic marker through gestural colour depiction. The aesthetic design and ethnographic context point to a plausible transition communicated in the imagery from one kind of substance (light/air) to another (blood/liquid). Colour perspective was also a point of aesthetic analysis. The spatial representation of imagery could be described as a conflation of foreground and background. Pictorial positioning examined the materiality of the paint in response to the natural features of the rock face which might further emphasise the concept of travel, or spiritual journey. Finally, the triad could be seen as a device for compositional balance. The rock face (generally dark, black) works in concert with the imagery (red, white) and the white (natural features, calcite run). The notion of aesthetics in this study explores that which is derived from what is already present on or in the

rock surface. Rock paintings are essentially an expression and extension of something that is there already before any painting occurs, and colour is an important aspect of this exchange.

CHAPTER FOUR –COLOUR AS A METAPHOR

> … the greatest thing by far is to be a master of metaphor. It is the one thing that cannot be learnt from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of the similarity in dissimilars.
>
> Aristotle, ([1911] 1941)

This chapter is centred on metaphoric associations, which is the final level of analysis on colour valence in San rock painting. The chapter focuses on the 'mermaid group' of Ezeljagdspoort, George district, Western Cape, South Africa, as analysed by Jeremy Hollmann (2005a) and several others (Alexander 1837; Leeuwenburg 1970; Lewis-Williams et al. 1993; Wintjes 2014). Metaphor is defined as it is used in this study. Additionally, a brief historical account of colour and its interdisciplinary role in art historical discourse as a metaphor is provided. The anthropological lens of Victor Turner (1967, 1968, 1980, 2013) whose work on ritual and symbolism of the Ndembu of Zambia is integrated as a vital resource that pays detailed attention to colour.

This survey of colour and its function as a metaphor in art history provides a platform for the examination of the role of colour within the San painting tradition. Scholarship that examines the metaphorical dimensions of colour attributes, colour combinations and colour devices are used in order to show how colour can be an effective aspect of interpretation. Gaps are identified in the translation of imagery that can be enhanced by insight on colour patterning techniques that point to metaphorical connotations. As previously explored in Chapters 2 and 3, the methodology includes revisiting analyses by other scholars in conjunction with ethnographic colour references highlighting emerging patterns.

Metaphor

As it pertains to this study, metaphor is a method of comparison where visual elements are key signifiers of meaning. Metaphor is the logical succession from the previously reviewed technical deployment of colour to its aesthetic compositional organisation, with a final aim of conveying multi-layered meaning.

Metaphor is a literary term that seeks comparison through analogous expression. In an art historical context, metaphor is often equated with hidden content in a work of art. It is frequently employed to explicate the meaningful content of visual signifiers. In an effort to elucidate meaning in art, or interpretation, many scholars in the field of art history conflate metaphorical implications of art with symbolism (Danto 1981; Johnson 1981; Hausman 1989). The premise of 'art as a metaphor' is often formulated through the use of Immanuel Kant's seminal work *Critique of the Power of Judgment* (2001 [1790]). Others (e.g. Forsey 2004) have found that the ambiguity in transferable meaning inhibits the

resolve to find concrete metaphoric observations shared by all viewers. Additionally, to equate symbolism and metaphor in an attempt to concretise the imaginative with theories of reason minimises the scope of the intuitive (cf. Kant 2001; Forsey 2004). This may arise from the over-application of literary constructs to explain the visual domain. In respect to San rock paintings, Wintjes explored the complications in interpretation as largely a consequence of emphasis on textual or literary readings of the meaning of the visual rather than seeking to begin with the visuality of the art. She further contends that the marginalisation of the visual through textual appropriation is characterised by a treatment of the art as the 'visible end-product of resolutions which have been arrived at already, rather than the site of resolution itself' (Davis 1985: 8; cited in Wintjes 2012: 163). Perhaps, while literary structures facilitate discourse on creativity, visuality, along with the intuitive and imaginative, cannot be reduced to a semantic formula, and ultimately 'each sign might be beyond semantic control' (Elkins 1999: 156; Wintjes 2012: 163).

For the purposes of this study, metaphor is used as a bridge between the analogous and the symbolic. In respect to San oral literature, this is all the more appropriate, as Wessels (2010) highlights the evolving didactic nature of oral narration creatively driven by the orator. Although this medium is available to us only in written form, its origin as an oral tradition renders it a creatively based idiom that is uniquely performed by its speaker, and arguably crafted in part by the participating audience. Each oral narrative, of which we have records only in the written archive, represents a singular example of a range of potentially infinite iterations. This reality significantly limits our contextual viewpoint. The individual San oral literary references remain an extension of the creative process where audience becomes participant (Ricoeur 1977), and each is therefore responsible for the artistic output. The metaphor then begins to transmute its initial placement and seek the analogous to create meaning. It becomes the platform upon which new meaning is derived.

History of Colour as a Metaphor in Art Historical Discourse

The increasingly important inquiry into meaning as a fundamental function of interpretation in art history has included the role of colour at the inception and dissemination of meaning. In 2009, the Theoretical Archaeology Group held a conference at Stanford University titled 'The Future of Things', with a session on 'The Colour of Things: Debating the Role and Future of Colour in Archaeology', facilitated by Alexander Nagel (University of Michigan). The session focused on interdisciplinary contributions aimed at creating a new theoretical paradigm that incorporates colour. The multidisciplinary findings integrate the inherently diverse approach to colour.

Scholarship spanning a range of methodological approaches to colour analysis included the work of Martina Zanon (2009), who examined Mesopotamian literary texts for symbolic meanings of various colours. While Zanon's work is focused on excavated jewellry from the Royal Tombs of the Cemetery of

Ur (mid-3rd millennium BCE), her findings revealed that the blue/red/metals triad is a variation of the basic black/white/red triad recognised in a range of other contexts and potentially representative of fertility and/or the chasm between secular and divine. In her assessment of the variability of colour in 6–5th millennium Greek pottery, Stella Katsarou-Tzeveleki (2009) describes colour designs as a type of material script. Elizabeth A. Waraksa (2009) explores the red colouring of female figurines from the temple precinct of the goddess Mut at Karnak (New Kingdom to the Late Period, ca. 1550–664 BCE) and its related magico-medical use. What all of these scholars seek is to understand ancient colour systems and their ability to relay pertinent cultural referents, and to make them available for further review within interdisciplinary platforms that have readily acknowledged and explored colour significance in modern and pre-modern contexts. These emerging research developments align with a primarily art historical approach to the formal investigation of colour in San rock paintings, which, however, also requires the conceptual and symbolic referents gained through more traditional anthropological and archaeological approaches to the art.

Does modern and contemporary painting in the western canon lack the metaphoric associations we as artists, art historians, art critics and viewers/consumers readily attribute to non-western art? Jeremy Gilbert-Rolfe (1981) surmises that ‘when painting decided to become primarily visual it surrendered the capacity to be metaphorical’. Perhaps some art movements defy this generalised view by Gilbert-Rolfe. These include late-nineteenth-century Symbolism evoked by the French literary movement and the desire to engage viewer emotion through formal aspects of painting such as colour, as well as the Colour Field movement of the mid-twentieth century, which sought to release colour from the passivity of objectivity to the primary subject of the work. Could these movements and others merely be reactions to a fundamental tenet of the formal attributes of a work forever marginalised as a ‘merely’ technical tool, such as colour? Our modern era and the ease of accessibility of pigments have surely also had a profound effect on the value we place on colour, and fundamentally change the associations it carries. Hence, the usefulness, but also challenging nature, of trying to understand what colour has meant and how it participated in the creation of pictures many hundreds or thousands of years ago in a very different context.

In art history and related disciplines, colour has always been part of the analysis, even if it is not foregrounded as a discrete issue. Hence, colour has formed an integral part of representation within disciplines more attuned to the visual, while rock art scholars struggle to incorporate colour significance into their interpretive framework. This is linked to a general eschewal of colour across a range of research areas. The author of *Chromophobia*, David Batchelor (2000), suggests that there exists a dichotomy in academia between the marginalisation of colour in one respect, and the increased significance of pigment colourants in investigations into material culture (Nagel 2010). Perhaps, the challenges around theoretical structuring can be mitigated through interdisciplinary approaches to colour symbolism. The projects presented in the aforementioned conference combined physical analytical techniques with symbolic or

metaphoric models for colour understanding, which is an approach that could equally be applied to the study of San rock painting, as an extension of the formalist-ethnographic approach forged in the present study. For instance, the colourant-derivative analytic techniques like the surface analysis process of ToF-SIMS[39] (Duckworth 2009), and models of colour archaeology and colour as a visual code, can be integrated and modified specifically for rock art studies, thereby enhancing our knowledge of pigment provenance and use. In the context of this research, these current investigations into colour confirm a shifting paradigm from within which colour studies of the San painting tradition can engage and participate in a global context.

The art world has lately seen a resurgence in the study of colour significance. Contemporary colour studies have focused on the history of a specific hue, and the subsequent implications for social, economic and political significance (Pastoureau & Cruse 2001; Pastoureau 2009, 2014, 2017). These studies follow a continuum of ancient and modern investigation into colour. Art history can trace the correlation of metaphoric symbolism of colour to the earliest known examples of human interaction with pigment. Ancient pigment use in the Middle Stone Age is a key indicator of advanced thought. Research into prehistoric ritual use of colourants revered and identified as potentially symbolic is critical to material-culture studies as explored in the introduction and Chapter 1.

The significance of colour is relevant in numerous other archaeological contexts. There is evidence of potentially symbolic ritual use of colour dating back to 300,000 years ago with the purposeful movement of ochre to a recessed chamber of Wonderwerk cave, Northern Cape (Chazan et al. 2016). Additionally, excavation at Blombos cave, Western Cape, shows the purposeful manufacturing of ochre 100,000 years ago with the discovery of what has been termed an ‘artist(s) workshop’—possibly the earliest evidence of artistic processing technology (Henshilwood 2011). Furthermore, a shift in the evolution of human cognitive development has been proposed based on the recovery of the earliest known art object, a 70,000-year-old geometric incised piece of ochre, also from Blombos cave (Ibid.). As we move beyond southern Africa, the Venus of Willendorf (25,000–20,000 BCE) is recognised as the first example of representational art and most notably associated with fertility (Kleiner 2013, 2016: 18–19, 29). Interestingly, traces of red ochre are still evident in the crevices of this small limestone figure and are testament to its plausibly ritual and symbolic use. Furthermore, the ochre covered walls of homes in Ain Ghazal, Jordan (ca. 8–6th millennium BCE), attest to the conspicuous and consistent use of this red pigment over time and its allocation (Ibid.: 25) as a decorative medium intertwined with social consumption, often interpreted as symbolic. While the metaphorical connotations vary widely and

[39] Time of Flight Secondary Ion Mass Spectrometry (ToF-SIMS) is a process of analysis by which ionized particles are used to assess the structural components of a given sample (Duckworth 2009).

geographic and cultural specificity defy generalisation in this expansive overview, consistency lies in the undeniable reliance on colourants, and particularly red ochre.

While the manipulation of colour can act as a vehicle for technical, social and spiritual contemplation or investigation, red seems to predominate in these examples in different contexts, but it also forms part of a suite of three colours. During the prehistoric period, research by art historians reveals that although other pigments were available to artists, the black-white-red trilogy was regularly employed across most of Eurasia and Africa (Pastoureau & Cruse 2001: 13–15). Furthermore, historical linguistics has demonstrated and ascertained these colours as the earliest to be lexicalised in language (Witkowski & Brown 1977: 52; Anderson 2003: 130; Turner 1967: 60), suggesting the forging of complex conceptual structures of understanding alongside the physical deployment of colour for specific purposes.

'Swift People' Motif Examined Through Metaphor

A number of existing site-based analyses with potential to be developed for an inquiry into colour were identified in preparing this study. One of these sites emerged as an interesting case study for the investigation of the metaphoric dimensions of colour—the 'mermaid group' or 'swift people' of Ezeljagdspoort, George district in the Western Cape, analysed by Hollmann (2005a,b) and others. Provisional examinations and field visit to this site (July 2016) suggest that interpretations can be enhanced through a look at colour valence for metaphorical associations.

In previous interpretations of the 'swift people' motif at Ezeljagdspoort, colour isn't closely examined as a meaningful material property of the art as part of this study. Hollmann (2005a) presents extensive research details through black-and-white copies and redrawings of 16 sites in the Oudtshoorn area coupled with ethnographic references. His interpretive approach relies heavily on morphology and ethnography (Hollmann 2005a: 32). In a subsequent study, Hollmann (2005b) extends his discussion around the 'swift people' motif to include an interpretive analysis involving ritual practitioners, contributing much to our understanding of the motif. He correlates spiritual practice with direct San testimony regarding imagery at this site (Ezeljagdspoort site 10) about figural iconography centred on 'rain's people' and 'rain sorcerers', by |Xam informant |Han‡kass'o. This sets the stage for the colour attributes of the imagery and the potentially powerful metaphoric connotations to be incorporated with his analysis (Hollmann 2005a: 24). This research provides an opportunity to cross-reference with colour sources related to rain, water, and rain ritual in the Bleek and Lloyd archive.

Furthermore, Wintjes (2014: 700) alludes to the relevance of the colour red that is naturally occurring on the rock face, featuring as a viable point of continual interaction between the San and this densely painted area. There are many studies pointing to the significance of the colour red in rock art (How 1962;

Turner 1967; Vinnicombe 1976; Yates & Manhire 1991). An analysis that lacks close engagement with its presence, implicitly apparent in contrast to the sandstone surface, diminishes the potential to enhance interpretation more generally (Wintjes 2014: 700). As discussed in Chapter 3, an investigation of colour valence of red within the ethnography reveals its consistent use in the designation of developmental stages and maturation and as a potential metaphoric indicator of transformation or growth.

Evolution of a Motif



Fig. 4.1. Ezeljagdspoort panel, George, Western Cape. 'Swift people' motif. True colour enhancement by Kevin Crause, 2011



Fig. 4.2 Ezeljagdspoort site, George, Western Cape.
Photographed by Hugo Leggatt 2011

Ezeljagdspoort is the name of a farmstead located just north of the city of George in the Western Cape. It also refers to a rock art site situated in a ravine near the Brak River, which is at the centre of this study on colour as a metaphor (**Fig. 4.2**). The name Ezeljagdspoort translates from Afrikaans as 'hunt of the zebra' (Leggatt pers. comm. 2016), although *ezel* literally means 'donkey'. The Ezeljagdspoort site is known for the 'amphibious' (Alexander 1837: 317) therianthrope imagery (**Fig. 4.1**) of a motif that has been viewed through an evolving nomenclature from 'water-maiden' to 'swallow people' from the nineteenth century to the present day (Lewis-Williams et al. 1993; Hollmann 2005a, b).

The first recordings of this site occurred under the direction of British officer James Edward Alexander in 1835, as previously discussed in the Introduction. A colour plate or single colour lithograph[40] of the 'swift people' motif was published in 1837, along with imagery from nearby sites. Included in the publication was a suggestive association, steeped in the racial predilections of the era, of the motif as potentially

[40] The choice of a single colour for this reproduction would have been determined by the lithographic technology available at the time. Multiple colour printing technology, or chromolithography, came in 1874, when Joseph Millerd Orpen's illustrations of rock paintings published in the *Cape Monthly Magazine* were the first instance of the use of this technology in South Africa (Dubow 2006: 109).

illustrating the ‘amphibious nature’ of ‘white’ people (Alexander 1837: 317). The initial public dissemination of this imagery made attempts at translating colour distinction (Wintjes 2014: 700). Providentially, Alexander made note of the colour variance of the red hue, which he deemed the ‘rust of iron’ and a primary ingredient of the pigment (Alexander 1837: 315). This focused intent to replicate colour accuracy would languish in the work of subsequent generations of researchers.

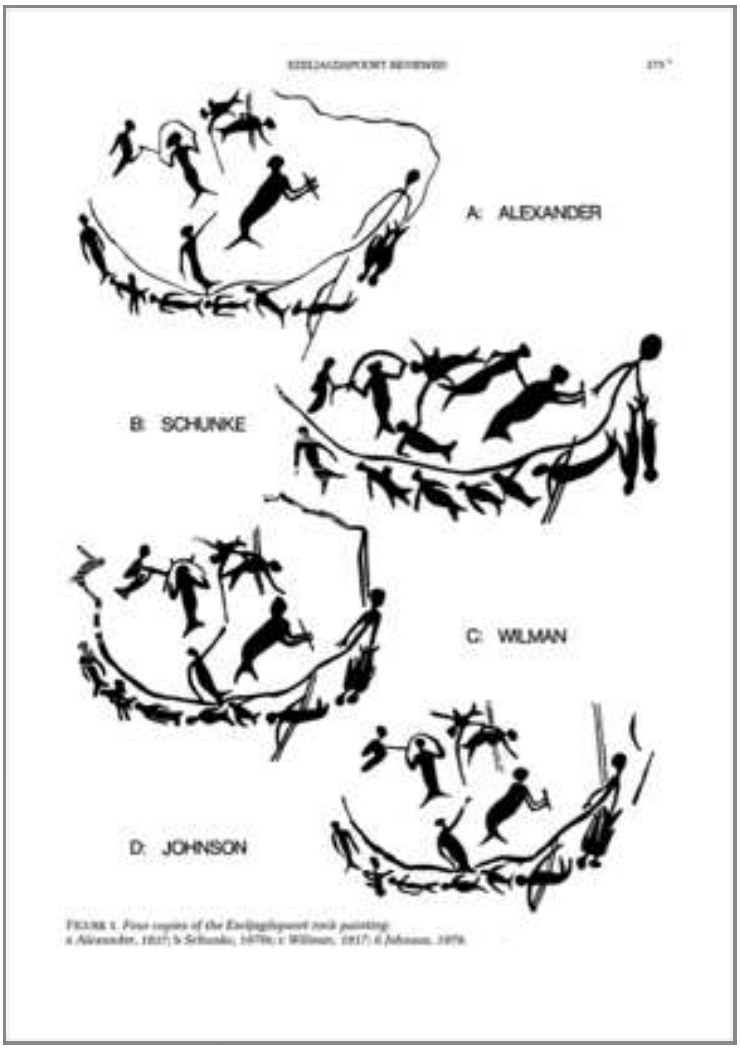


Fig. 4.3. Four copies of the Ezeljagdspoort rock painting: A: Alexander, 1837; B: Schunke, 1870s; C: Wilman, 1917; D: Johnson, 1979. After Lewis-Williams et al. (1993: 275)

The researcher Jeff Leeuwenburg’s positing of a correspondence between this imagery and an 1870s legend recorded by Bleek and Lloyd has had a significant impact on the motif and its subsequent reading and interpretation as myth manifest pictorially (Leeuwenburg 1970). Although Leeuwenburg’s work forms part of a larger history, his juxtaposition of ‘folklore’ and rock paintings confirmed prevailing theories that enigmatic imagery could be interpreted through a narrative framework. This has had an effect on a near-century-long association of this painting with the mermaid context and the designation as ‘*watermeide*’,

Afrikaans for water-maiden (Willcox 1963: 35; Leeuwenburg 1970). The intersection of this legend and its correlation with the 'swift people' imagery stems from a tale conveyed by a Bushman named Afrikaander who lived in the area (Bleek 1875, quoted in Lewis-Williams et al. 1993: 276–277), about a young girl submerged into a dark pool by water maidens only to be salvaged through the herbal remedy applied to the water by her mother. The girl returned unharmed but with cheeks licked white due to the affection of the mystical creatures (Leeuwenburg 1970). Leeuwenburg essentially perpetuated an ideology framed a century earlier based on Orpen's (1874) and Bleek's (1874) theories that some of the paintings depicted San myths. He explained that this legend and others provided by Afrikaander were depicted as illustrations of folklore (Leeuwenburg 1970: 146).

Rock art scholars David Lewis-Williams, Thomas Dowson and Janette Deacon (1993: 275) provide a telling composite of four renderings of the 'swift people' group to track its varied construction over the years, based on the bias of artists and researchers of the time (**Fig. 4.3**). Their examination of the pictorial group sought to broaden the perspective of the enigmatic motif to include the curious lines that foreground and frame the figures along with the dots that are also repeated across the full width of the panel. While Lewis-Williams et al. (1993) established a more inclusive panorama of site imagery, their engagement focused on the hypothesis that entoptic imagery, derived from neurological research, was present in the painting. For example, they propose 'somatic hallucination' (Ibid.: 282) to explain the undulating, attenuated figure and its relationship to the San informant |Han‡kass'o's reference to 'the rain's navel'. They also refer to the undulating lines and dots as entoptic, or geometric forms visible at the onset of trance (Ibid.: 281).

Examples of these circles or geometric forms, framed by Lewis-Williams et al. (1993) as an entoptic phenomenon, exist in other areas of the panel but have been noted by scholars such as Justine Wintjes as potentially a border demarcation or fulfilling some kind of scenic role (2014: 700). These dots do not always appear visually as wholly circular, possibly due to paint loss, and like the 'swift people' motif, also lend themselves to more than one plausible explanation. Reports of paint being prepared with fresh eland blood at the full moon (How 1962: 26–42; Lewis-Williams et al. 1993: 286) suggests that hunting-related themes could be present in the imagery. Additionally, the ethnography reveals that many songs and prayers to the moon reference the hunt as well, which may then implicate lunar cycles and therefore the passage of time. Athough highly speculative, the visual representation of a combination of half and whole circles could point to celestial phenomena such as the various phases of the moon. These subtle aspects are most visible in the enhanced photography by Kevin Crause (**Figs. 4.1, 4.7**), but the plausibility of this proposition requires further examination.

The most recent designation of the hybrid figures as 'swift people' follows extensive research involving natural modelling by Jeremy Hollmann (2005a). He convincingly conjoins the avian behaviours of swifts to

the figural positioning portrayed in the design. Furthermore, he extrapolates symbolic association between the 'swift people' motif and San ritual practitioners (Hollmann 2005b). His research is the culmination of a history of interpretation that exemplifies a focus on the iconographic identification of the motifs as depicted in the clearest, uppermost layer of painting, and does not explicitly address the ambiguous motifs, or other aspects of the visual appearance of the paintings such as colour.

Large portions of the many other motifs that occur across this panel are painted in shades of predominately red and yellow. Upon closer inspection, figures subtly outlined in black (**Fig.4.4**) are also evident and likely an addendum to the initial layer of paintings, an assumption based on their divergent visual appearance.

Polysemic Implications

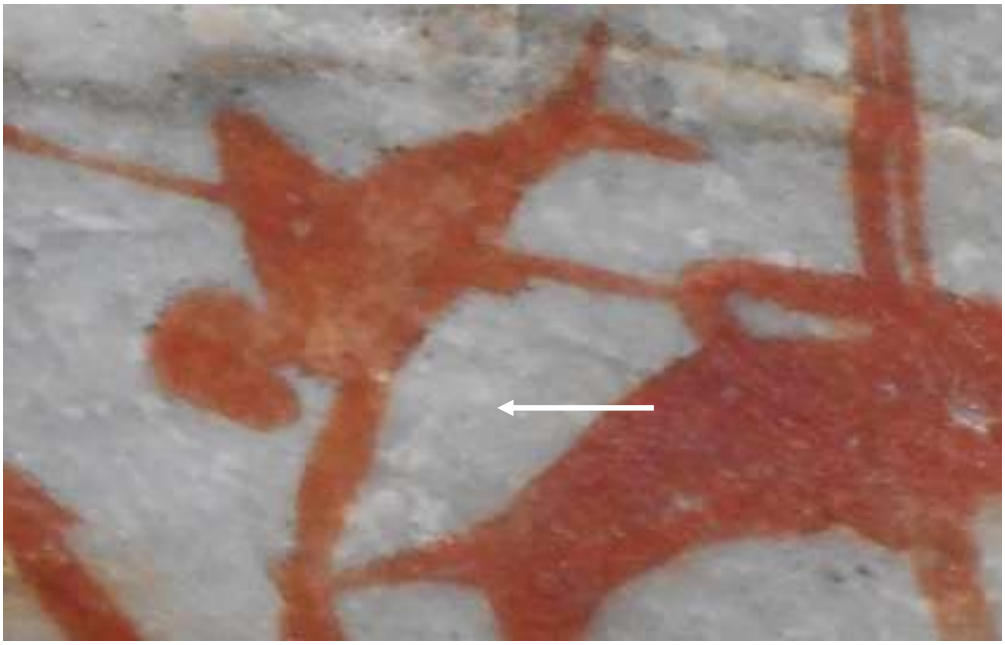


Fig. 4.4. (Detail.) Ezeljagdspoort, George, Western Cape. 'Swift people' motif showing outline with possible use of black pigment. Photographed by the author, July 2016

The Ezeljagdspoort site figural imagery as 'swift people' is the current iteration of a motif translated through aquatic to aerial connotations from the early nineteenth century to the present, a trajectory of naming that parallels the change in methods of interpretation. The polysemic nature of this particular imagery, with its enigmatic ambiguity, has definitively challenged initial attempts at scholarly interpretation. Influenced by western mythology, interpretation of this motif formulated through an association with the recognisable 'mermaid' concept, yet also plausibly links in convincing ways with San beliefs about creatures that exist and operate between earth and water. Recent studies steeped in close

readings of the ethnography have led to a range of other tenable and complex readings to a current situation of polysemic meaning (Lewis-Williams 1998), where the motif can no longer be seen to have a simple, single meaning. And yet, all of these interpretations have focused on the figural shape of the clearest and most obviously depictive motif from within the wider composition.

The overview of interpretations of this single motif is site-specific, yet also provides a window into the regional history of rock art research. It exhibits a prevailing interest in a motif singled out from the complexity of the comprehensive pictorial design. Alexander's interest in colour was not picked up by subsequent generations of scholars, and in later academic discourse, colour as a complicating element would result in widely disseminated black-and-white reproductions of otherwise colourful paintings. And yet, the mobilisation of colour forms an integral part of the creation of any visual expression in paint and can play a central role in the investigation of meaning.

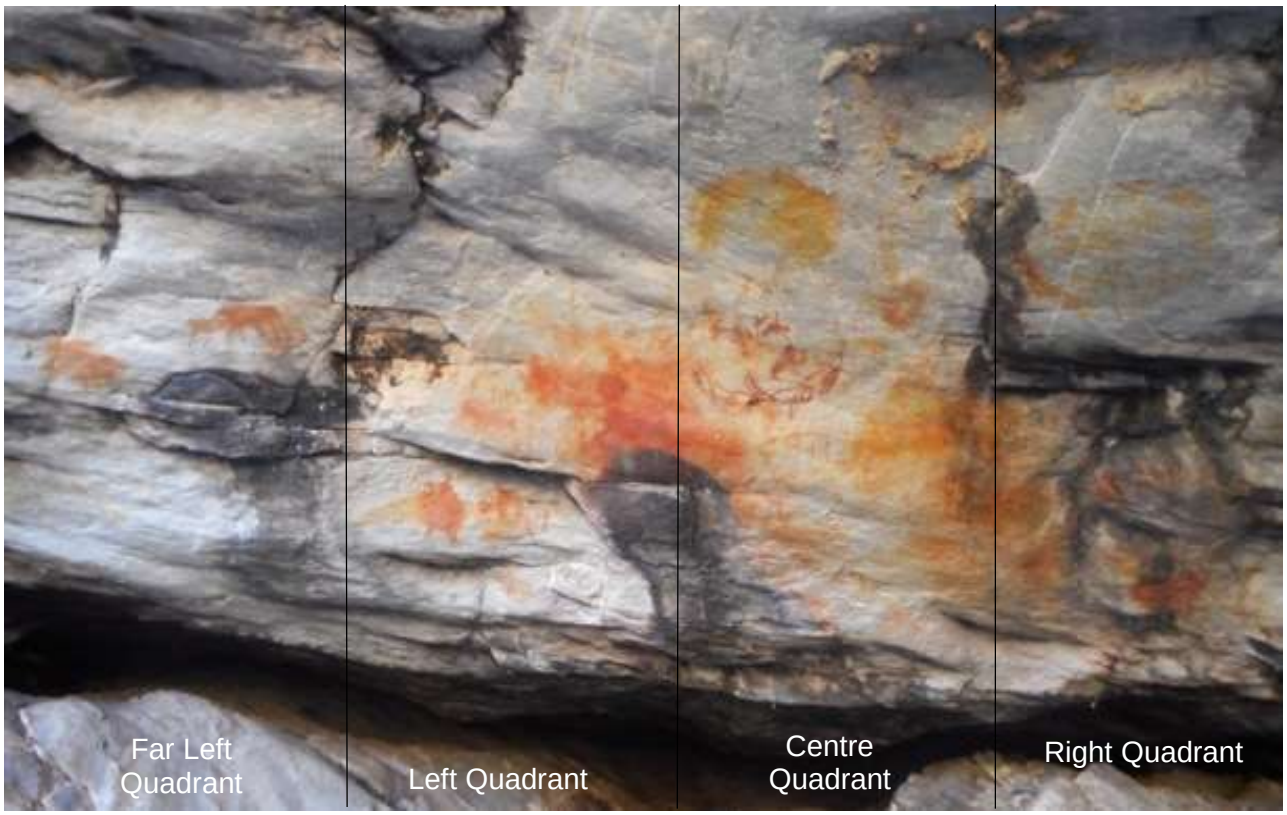


Fig. 4.5. Ezeljagdspoort panel, George, Western Cape. Quadrant division for colour analysis. The swift people group is located in the centre quadrant. Photographed by the author, July 2016



Fig. 4.6. (Detail.) Ezeljagdspoort panel, George, Western Cape. Indeterminate antelope depicted in integrated use of colour through 'coupling' device. Photographed by the author, July 2016

Colour Analysis

The colour analysis at Ezeljagdspoort is centred on the 'swift people' group that has attracted so much attention, but considers this group within a wider compositional context (**Fig. 4.5**). Included in its immediate vicinity are many other coloured figures and natural rock colouring. Colour use at Ezeljagdspoort rock shelter is prominent as what appears to be schematic bands of pigment in orb and oval shapes dominate the visual plane. The less colourful grey and black sandstone setting is the support for the paintings. At this distance, the visuality of the panel is characterised by an articulation of colour-hue and intensity rather than figural delineation. The clarity and cohesiveness of this cluster of motifs may have been the reason for its dislodging from the compositional whole in previous studies. Technical limitations such as weathering and deliberate smudging and smearing of the paint on the rock surface should be considered as a factor to current observable colour variation.

Colour appears to function in the composition through three key attributes: linear, tonal and metaphoric. The paintings are created through what might be described as a 'closed-boundary' use of colour, defined in other contexts as 'linear painting' (Wölfflin 1950 [1932]), where forms are clearly outlined and filled in with flat colour. Most motifs, created in a similar manner of this technique, appear to be in varying red hues throughout the site. This linear form, possibly displayed in the 'swift people' motif and other animal and human forms, conveys a tangible physical presence. The potential tonal application of colour seems more ethereal and a significant visual component of the wider composition. The seemingly orbital and indiscriminate bands of colour diffuse from an intense circular red hue to a muted and atmospheric tone



Fig. 4.7. Ezeljagdspoort panel, George, Western Cape. 'Swift people' group. Enhanced false colour imaging by Kevin Crause 2011

of yellow, and undergird linear and definitive figures in the composition. The potential metaphoric application of colour might be gleaned from drawing links between colour references in the ethnography and the articulation of colour in the rock art. Colour references that emphasise the relationship between colour and maturation and development emerge as particularly relevant. For the purposes of this discussion, the composition has been divided into four quadrants (**Fig. 4.5**), with some peripheral paintings occurring at the outer boundaries not visible in this view.

The linear use of colour, throughout the composition, seemingly provides clarity and autonomy of form. Across all quadrants, animal and therianthrope figures all appear to be modelled in a 'closed' boundary style in red pigment. This contrasts with the fleeting immersion of subject and background in yellow-orange. The superpositioning of shapes in particular colours appears to be deployed as an interesting coupling device, or intersection of forms. In the far-left quadrant moving from left to right, the first vignette is an intermingling of indeterminate figures in hues of red and orange. The second series of imagery in the far-left quadrant contains two indeterminate antelope that are also intertwined, as the yellow-orange antelope appears immersed into the abdomen of the red animal (**Fig. 4.6**). This integrated use of colour as a coupling device might suggest an intermingling of a relationship between animal figures in differentiation or symbiosis, such as, male/female, doe/calf, and so on. Anitra Nettleton remarks on the common use of superimposition as suggestive of 'a relationship […] set up between the two images'

(1985: 51). Additionally, the transformative nature of the human-animal attributes of therianthropes in San cosmology might be evoked here visually (cf. Skotnes 1996b).

At a distance, the ‘swift people’ cluster emerges from the wider panel as the clearest and darkest set of motifs (**Figs. 4.1, 4.5**). Its figures appear modeled in sinuous unbroken lines of a dark red hue. Intriguing figures underneath this group, most visible in the enhanced photography by Kevin Crause (**Fig. 4.7**), are constructed in a muted yellow-orange. This imagery is overlooked in some interpretations despite that its linear, although hazier, properties as substratum seem to provide a foundational background.

And finally, another design element unacknowledged in previous studies and illustrating the linear use of colour is located at the upper right of the ‘swift people’ group (**Fig. 4.8**). Here discrete figures in yellow appear to float together in an elliptical formation that echoes the configuration of the ‘swift people’ group. The stylistic difference and faded appearance of these other clusters suggests their production at a different period, but their similar overall shape is suggestive of a re-engaged visual dialect between different painting episodes.

These examples of sharply defined forms in the main group retain a clear distinction between background and foreground, subject and placement. Other aspects of colour variation may have been created through a deliberate manipulation of the paint. This review of colour has been performed with the consideration of weathering as a significant constraint on resultant analysis. An analysis of the panel is based on what is visible currently, with the assumption that at least some of these devices and effects might be deliberate, or deliberately incorporated into/prompting subsequent acts of painting. The aesthetic vacillation between what appears to be a predominately linear use of a red hue with the subtle painterly yellow pigment calls forth, for the viewer, the tension between visibility and near invisibility, or visual liminality. Digital enhancement techniques like those developed by Kevin Crause have the potential to show elements that are not visible or recognisable to the naked eye, and may therefore have the effect of bringing this register of imagery into the realm of what we can study (e.g. Hollmann & Crause 2011). In this digital enhancement, the figures seem to manifest through an assiduity of line, defy boundaries, and emanate in and out of clarity. This effect echoes Wölfflin’s (1950 [1932]: 156, 163) differentiation between ‘linear’ and ‘painterly’ brushwork of the Classical and Baroque periods in Europe, one use of colour imposing ‘limits’, while the other is ‘limitless’. The seeming fading of colours back into the rock also resonates with the idea of the rock surface as a permeable veil from which the paintings emerge (Lewis-Williams 1990), but into which the paintings also wane.

An example of the potential function of colour through tonality is in the left and central quadrants and may stand as a recurring aesthetic device unifying linear elements. Moreover, the display of tonality appears to define the picture plane and influence the figural positions within these planar spaces. For instance, in the

left quadrant, swathes of red or yellow-orange pigment seemingly act as a foregrounding counterpoint for the more linear figurative imagery (**Fig. 4.9**). These zones of colour often appear diffuse in intensity, calling forth a sense of the ephemeral and atmospheric, a state of the undefined. If this colouring is the result of weathering it still impacts the observer's experience of the imagery and the weathering becomes part of its meaning even for San observers of the art in the past.

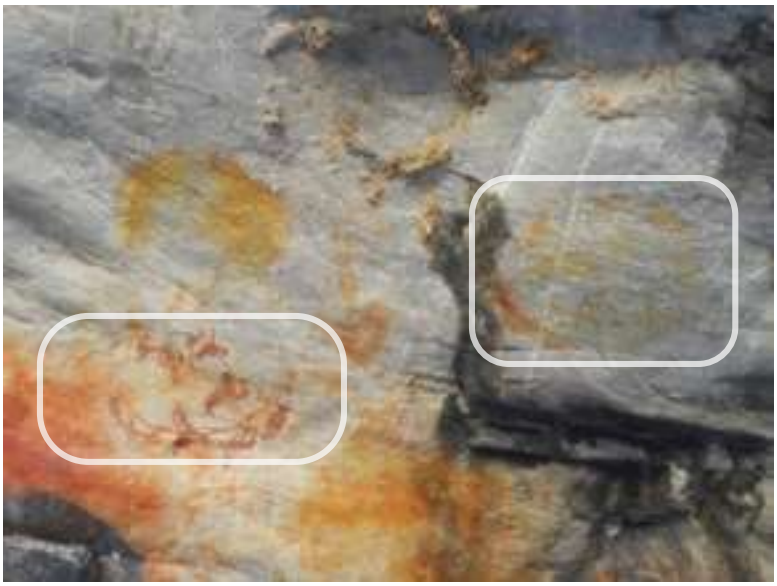


Fig. 4.8. Ezeljagdspoort panel, George, Western Cape. 'Swift people' group with replicated oval-like composition. Photographed by the author, July 2016

Variable colour intensity, likely an effect of weathering, is present in the central quadrant as the 'swift people' cluster is surrounded by diffused yellow pigment above and on the right and red pigment on the left (**Fig. 4.5**). The integration of these complementary colours has a unifying effect, while the varying intensity appears to convey depth. Embedded in the application of this paint is the circular and elliptical use of what might be a pure colour source radiating shadowy counterparts that appear both as ethereal mist and indeterminate silhouette figures.

As mentioned above, the boundless ethereal effect of the variable colour intensity is suggestive of the ephemeral. The loss in clarity of line is precisely its agency, expressed by Wölfflin (1950 [1932]: 157) as '[c]omposition, light and colour no longer merely serve to define form, but have their own life'. What appears as orbs of red and yellow pigment are central to the main 'swift people' arrangement and anchor the figures, thereby forming an eminent feature of imagery. The colour vibrancy conveys energetic resonance in pigment. The tonal use of colour here has the capacity to envelop or transmute light, create continuity and tension, and perhaps, even to negotiate the relationship between motif and background.

Metaphoric Implications of Colour Valence

In an attempt to explore the metaphoric dimensions of the colourful imagery at the Ezeljagdspoort site, I have been guided by Lewis-Williams et al.'s (1993: 277) position that, 'the art does not "illustrate" the ethnography, nor does the ethnography "explain" the art in any direct sense'. Both contain, in their own ways, metaphors that lay at the heart of Bushman belief'. Therefore, the metaphoric function of colour

seen in the Bleek and Lloyd archive may be exemplified in the visual reading of the imagery,[41] with some correlation to didactic patterns of categorical designation and developmental stages (Bleek & Lloyd 1879: 6879–6884 [stars], 4071–4074 [bees], 8744–8754 [locusts]):

> She threw up a scented root (eaten by some Bushmen) called !*huin*, which became stars; the red (or old) !*huin* making red stars, the white (or young) !*huin* making white stars. This root is, ||kabbo says, eaten by baboons and also by the porcupine. (Bleek & Lloyd 1879; BC_151_A2_1_034_2517)



Fig. 4.9. Ezeljagdspoort panel, George, Western Cape. Figurative images superimposed on swathes of red or yellow pigment. Photographed by the author, July 2016

> Little bees when chewed are white like milk. They are still in their cells; these latter are red. (BC_151_A2_1_052_4074)

> […] for the benne [locust with newly developed wings] is red like the earth. The grown-up locust is black. (BC_151_A2_1_106_8753)

References to the maturing stages of bees and locusts use colour terms, such as white and red (bees), or red and black (locusts), to refer to primary, intermediate and adult stages of growth, respectively. Furthermore, the sun and moon are associated with colour as a condition of age or culmination of time. Colour use in these instances may allude to colour significance through implicit connotation by association and its adjectival affiliation. Colour metaphors in the ethnography seem to find visual correspondence in the imagery, as gradient colours (from red on to orange and then yellow) are regularly depicted with lighter hues as tonal foregrounding for darker more discrete forms such as dark red. For instance, the seemingly linear use of colour both in non-figurative and figurative content at the Ezeljagdspoort site is predominately allocated in red, a colour frequently associated in the ethnography with processes of transformation and mature stages in the development of various entomological and atmospheric phenomena (BC_151_A2_1_034_ 2517; BC_151_A2_1_052_4074; BC_151_A2_1_106_

[41] A comprehensive report of San oral literature references that include colour has been charted to document practical and descriptive application along with those that may have metaphoric implications. See Annexure I.

8753). Red has also been associated with blood (potency), beauty (body paint) and social harmony. The use of red therefore seems to reinforce the clarity and wholeness of form metaphorically as well as visually. Specific colour concepts linked to the triad such as maturation, relationality and transformation appear to be reiterated in the colour palette of this imagery.

In addition, it appears that the compositional interplay between linear and tonal aspects of the imagery might allude to pictorial relationships through vignettes in hues of red and yellow-orange. This might also reflect colour concepts developed through a close look at overlapping colour references in the ethnography. In the following passage, the Mantis and his son-in-law are emphasised and situated in relation to one another spatially as well as through their colour designation. The Mantis is a common character in |Xam narratives, often described through the 'trickster' archetype. This colour affiliation is perhaps also a metaphor for social hierarchy or behavioural proclivity:

> The rainbow. It is yellow, its place which lies above; a thing which looks red […] while the Mantis is the one who is also yellow; he is the one who lies above; while kuamman-a lies underneath […] the Mantis is the one whose part which is uppermost, it is yellow; while his part which lies underneath it is that which is red […] the people say, the rainbow stands yonder, and the rain will break. (|Han‡kass'o, March 1878, quoted in Bleek & Lloyd 1879: 6600–6601, 6603–6604).

Dorothea Bleek (1929: 305) describes |Kuamman-a as 'quiet, and brave' and the Mantis as 'talkative, nervous'. Another aspect of this dualism is visible in that the Mantis is described as yellow and above his son-in-law, |Kuamman-a, who is red and remains underneath. This descriptive mutuality exhibits a potential confluence of colour and meaning readable within a broader context. Colour can then be understandable as one of several 'discursive, symbolic and ideological strands [that] converge to form a narrative' (Wessels 2010: 246).

The archival writings reveal pleas to the various astrological bodies to shift their positions in a call to usher in the new season. An example of this is a description of the breaking of the dawn (young) or a new day referred to as white, and the setting of the sun (old, retired, or a culmination of time) as red:

> !*gabbuken*
> !*game-ta* !*gabbuken*
> The Day- Break's great *tani*?
> ! *goro- ta or goro- ttwai* This last name refers to the Bushwomen singing to the stars with their throats, making it set

> //*oin-si-Tkunken* The Sun illuminates it, making it white. When the sun has set, it again becomes red.
> (1873: 73; BC151 E4.2.1)

The relationship of young to old, implying a process of transformation, is frequently conceptualised as a shift from white to red. This is also linkable to the natural phenomenon of the reddening of the sky at sunset (and sunrise) mentioned previously in this study. The colour red is associated with dramatic transformations in the natural world, which contributes to its metaphorical significance.

Exploring the Concept of Actualisation

In order to bring the complex functioning of colour from the technical through to the metaphoric, the concept of actualisation, or interstasis is employed. Through a close analysis of the panel at Ezeljagdspoort, the function of colour in visual and metaphoric terms is explored using the conceptual lens of actualisation. This might reveal a pattern that could be seen to hold at other sites, reflecting a potentially 'pan-San' aesthetic (Solomon 2008: 61; cf Lewis-Williams 1980; Barnard 1992; Guenther 1989). In other words, the concept of actualisation emerges as an overarching way of exploring patterns of colour associations drawn out of the ethnography. The concept of 'actualisation' was inspired by Wessels (2010), who explores themes within 'non-European' representation as proposed by Jacques Derrida, including the 'actualisation' of the potential facilities that 'slept inside man' (Derrida 1976: 257; Wessels 2010: 52). Although the context of this excerpt is a desire to revisiting the complex paradox of nature and culture in a teleological structure (cf. Derrida 1976), for this study, it solidified a way of conceptualising colour as a dormant, yet evocable, vehicle for meaning. Due to the often episodic rather than linear framework of San oral tradition (Wessels 2010), it would not be a stretch to imagine these aesthetic patterning devices in a visual context. With this in mind, repeated engagement with and physical renewal of the imagery over time by a community (Jolly 1986; Lewis-Williams 1986; Lewis-Williams et al. 1993; Lewis-Williams & Challis 2011) would suggest a continued interaction with the visual cues through an ongoing practice of actualisation.

Actualisation, or the essence of being and becoming, denotes liminal and potentially temporal stages within a visual vocabulary. Actualisation as a concept is proposed to bring together seemingly disparate ideas collected across different studies concerning the auspicious nature of paint preparation (How 1962); the duality of the therianthrope, not discussed in ethnography and only manifest aesthetically (Skotnes 1996); the intercession of imagery by the shaman during trance (How 1962); and the temporality and liminality of the three-tiered cosmos (Lewis-Williams 2002; 2010b). Colour plays a significant role in the manifestation of actualisation across all of these examples. The findings of this analysis of the imagery at Ezeljagdspoort immediately recall the agency (Gell 1992: 52) of the paint as a reservoir of potency

explained by a woman of Bushman descent as ‘harnessed by the shaman during trance’ (Lewis-Williams et al. 1993: 287). In this respect, colour appears to be used to visualise liminal states, because among other visual aspects of painted imagery, it forms a concrete expression of a range of abstract ideas.

San paintings have often been interpreted through a cosmological lens. An important aspect of this analysis is the three-tiered ordering of the cosmos in terms of an upper, spiritual level, an intermediate secular level, and a subterranean spiritual level (Lewis-Williams 2002: 144–151; Hollmann 2005a: 30; Lewis-Williams 2010: 7, 14). It is also useful to think about the overarching concept of actualisation and its manifestation in the rock art within this space-time structure. Actualisation involves a transitive process encompassing the fluidity that exists between the varied states of being, or liminality. Although a broad pattern is the aim of this work, specificity and impartiality in the interpretation of cultural motifs is critical (cf. Ricoeur 2006). An over-generalised reduction of a varied visual vocabulary, or an application of ‘homogenous universality’ in style or meaning (Lewis-Williams 1986; Skotnes 1996b), would therefore be counterproductive. The use of ideas in this study from scholars with widely different positions concerning the San paintings highlights the dynamic variance in discourse rather than flattening the complexity of individual positions.

This notion of actualisation is framed through a precedent set in interpretive rock art discourse. The concept of actualisation, albeit subtle and not always explicitly stated, has been a facet of reviewing temporal states of being and their relevance for the meaning of the imagery (e.g. Pager 1971, 1975; Vinnicombe 1976; Solomon 1997; Lewis-Williams 2002; Eastwood 2008). Scholars have further noted that the visual ‘process and transition [are] as significant as [the] product’ of creative work (Wintjes 2014: 693). Pippa Skotnes (1996), who has worked extensively with the Bleek and Lloyd reference material, asserts that transformation was a fundamental aspect of |Xam belief. This includes occurrences related to the sympathetic relationship of hunter and prey, people of the Early Race, rain, women during menarche and the trickster god |Kaggen (Skotnes 1996: 240). She understands therianthropic imagery as representative of a transitive state articulated visually rather than orally: ‘The therianthrope or the zoomorph in the paintings is thus an indication of a change from one state or form to another, attributes of both being reflected in its morphology. Yet this liminal state, this process of becoming, is never witnessed in the ethnography’ (Skotnes 1996b: 243). Perhaps the articulation of change is more accessible and poignant through a visual device than an aural or verbal one. The role of colour in this articulation of change is significant but marginalised in some translations.

SUMMARY

Metaphorical aspects of colour are suggested in relation to formal features of the rock art imagery at the Ezeljagdspoort site. The triad as a colour-concept suggests transformation in the case of the ‘swift people’ motif. One formal element which can be described as the tonal use of colour alludes to ethereal and intangible pictorial aspects. This tonal feature may also connect with the triadic colour concept of communal cosmology. Communal cosmology concerns the interactive relationship between hunter-gatherer communities and the intangible forces of nature. The atmospheric and invisible cosmic forces have a direct impact on the community. By contrast, the linear use of colour is a way to formalistically illustrate the more physical and tangible imagery which is most closely aligned with the fine-line category of San painting. The linear use of colour may align most closely with the colour concept understandable within a broader triadic framework. As well, it could denote the physicality of human interaction, more visibly represented pictorially. The metaphoric use of colour in this chapter is linked directly to concepts that are parallel to colour use in the ethnography. This analysis of the ‘swift people’ motif and its wider pictorial context has revealed the importance of colour analysis in translating metaphoric meaning.

SECTION I - OVERVIEW

This study examines the question of colour in San rock painting. While San art employs a level of verism, colours are not always used in a fully naturalistic manner. For example, colour in its depiction of particular animal species and postures, or its use of shading for the rendering of volume. Yet, this visual tradition is highly colourful, and there are patterns to the ways in which colours are used. Subtly underpinning current rock art scholarship is a sense of the fundamental role that colour plays, along with a sense of an inherent complexity (perhaps even intractability), and colour hasn't yet been a focus of study in the region. This thesis seeks to go some way to fill this gap supported by a heightened interest in visuality and materiality in current archaeological scholarship. This sets the stage to pursue a study of colour and its challenges.

The thesis begins with a consideration of the numerous constraints on analysis. It acknowledges the ocular-centrism of art historical approaches, as well as the unknown but possibly significant influence of weathering on what one can observe of the paintings today. The study also acknowledges the problems that the field of rock art interpretation as a whole has to contend with: high regional artistic diversity, perennial challenges of dating leading to a dearth of chronological understanding, and regionally limited (although extraordinarily rich) ethnographic sources. It then formulates as a productive way forward a 'formalist-ethnographic' approach, which intricately weaves together visual and anthropological insights in a recursive fashion, building on the extensive existing rock art scholarship.

The research proceeds with a close visual analysis of a careful selection of rock paintings from different sites across South Africa. This selection is based on intrinsically interesting examples of motifs in specific colour-hues (red, yellow, white, black and variations therein), and colour relationships. The study proposes as a guiding principle a primary triad of red, white and black, which is a recurrent colour palette in African art and elsewhere globally. These colours correspond with clusters of associations drawn out from ethnographic sources. The triad is therefore proposed as a useful framework for the concurrent investigation of perceptual as well as conceptual aspects of colour. With the triad as an overarching but cautious heuristic device, the study moves through a structured exploration of the technical, aesthetic and metaphorical dimensions of colour through the selected examples of motifs and panels.

What emerges is, first, an appreciation of the subtle ways in which colour is deployed in this imagery visually, and, second, the ways in which this visual use of colour correlates to the literary use of colour in the ethnography. This study uses the ethnography to explore possible resonances of the painted imagery (and vice versa), a classic approach used by rock art scholars, while placing greater emphasis on the materiality of the art, colour in particular. The study shows that individual colours do not have any simple symbolic or abstract meaning, but rather operate within a complex relational framework comprising clusters of colour-related associations that derive from a range of material properties of rock, paint and other elements of the physical and spiritual world of San communities. The role that colour plays in this

art is also shown to be much more than an element with a mere descriptive or symbolic function: it is a complex and powerful medium in and of itself.

The thesis comprises three site-based chapters (Chapters 2 to 4) that build on previous interpretive studies, to examine what colour can add to the analysis. These chapters also serve to explore key terms and concepts relevant for these examples, moving through technical, aesthetic and metaphorical dimensions of colour, respectively.

Chapter 2, the first site-based study, presents an examination of a paint patch motif that occurs in several of the Sevilla trail sites, with a view to explore technical aspects of San rock painting. This motif lends itself to this topic, because it has no immediate figurative referent, and so supports an exploration focused on the act of placing paint/pigment onto rock surfaces. Revisiting an earlier interpretation of the paint patch motif as a palette (Parkington 2003), the author finds that although these elliptical forms have been recorded as 'monochrome' and non-depictive, they present subtle colour variations, due to different aspects of paint application, including the apparent use of an *imprimatura*-like technique. Colour-related relationships to the figurative imagery nearby are also observed as well as to natural features of the rock such as crevasses and holes. The analysis arguably reveals that colour, particularly red, is used to activate the metaphysical veil-like properties of the rock surface, due to its associations with themes of transition and transformation.

Chapter 3 examines a portion of a panel from Fetcani Glen site 3, specifically an arrangement of lines depicted primarily in red, in the vicinity of a white calcite accretion, a natural feature of the rock face incorporated into the painted composition. This example lends itself to a consideration of aesthetic issues, defined here as pertaining to the formal composition of the imagery, comprising an interplay of patterns and variations. The painted lines exist in two interconnected forms, interpreted as 'threads of light' and 'bleeding threads' in an earlier study by Lewis-Williams and Pearce (2009). The analysis shows that transitions from one kind of line to the other involves several subtle visual shifts, including shifts in colour, from red to white, and sometimes yellow to red. This study revisits the interpretation of the main line as a path or rope along which shamans walk from the physical world to the spiritual world, with its 'bleeding' extensions alluding to more transient, light-related or liquid vectors of spiritual travel, such as falling stars and light reflected in the surfaces of bodies of water.

Chapter 4 focuses on a panel located at Ezeljagdspoort. Earlier interpretive work at this site focused on one particular cluster of red figures, which stands out due to its clarity and intensity. These figures have been interpreted as swift-people by Hollmann (2005), ritual practitioners adopting the appearance and behaviour of swifts: they have bird-like wings and tails, and are depicted circling and entering/leaving lines that might stand for nests or openings/clefts in the rock, like real swifts do. Yet this cluster is but a

small part of a much wider panel, replete with other coloured forms. The faded remnants of similar elliptical groups of bird-like figures can be discerned in several places. Other faded imagery is present, with residual colour gradients creating an atmospheric effect. Further forms in red and yellow appear entirely natural, colourful prompts from the landscape that could have inspired San artists to paint here in the first place. As a result of the presence of various stages of materialisation of the bird/human figures, the total panel evokes a theme of ‘actualisation’, defined here as the essence of being and becoming. This theme fits also with the underlying ontological ambiguity and instability underpinning San ritual practice.

CHAPTER FIVE – KAOXA'S SHELTER: GIRAFFE, GUIDE TO THE SPIRIT WORLD

> Just yesterday, friend, giraffe came and took me […] He took me to the river. The two halves of the river lay to either side of us, one to the left and one to the right. Kauha [god] made the waters climb, and I lay with my body the direction they were flowing. […] When we emerged we began to climb the thread—it was the thread of the sky! Yes, my friend. Now up there in the sky, the people up there, the spirits the dead people up there, they sing for me so I can dance. […] When I emerge, I am already climbing. I'm climbing threads the threads that lie over in the South. (Biesele 1980: 56, 61; 1993: 94)

The giraffe was to become his animal-helper and source of n/om.
(Lewis-Williams et al. 2000: 129)



Fig. 5.1. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif. Slide, RARI EEC RSA MAC1 41, 2017-04-03. Photographed by Edward Eastwood, Rock Art Research Institute, University of the Witwatersrand, 2017

This chapter explores the intertwined technical, aesthetic and metaphoric aspects of colour use in relation to a fine-line polychrome giraffe motif at Kaoxa's Shelter. The interdependence of these three aspects of colour is a bridge to understanding the literary colour-relationships. The giraffe is referred to in the San ethnography as a source of *n|om* or spiritual potency in San cosmology, as the quotes above illustrate. The polychrome giraffe motif at Kaoxa's Shelter can be a point of entry for an enhanced look at avenues through which to establish colour valance.

Kaoxa's Shelter, Mapungubwe

Kaoxa's Shelter is located in the Central Limpopo Basin (CLB) region. The CLB has been the subject of rock art research since the 1960s and continues into the present (Schoonraad 1960; Willcox 1963; Pager 1975, 1977; Eastwood 1999, 2003, 2005; Eastwood et al. 1998; Eastwood & Blundell 1999; Eastwood & Cnoops 1999; Hall & Smith 2000; Blundell & Eastwood 2001; Smith & Ouzman 2004 after Eastwood & Smith 2005: 63). The CLB consists of three rock art areas, each of which has its own distinctive style: Northern Venda; Soutpansberg; and the Makgabeng Plateau. Kaoxa's Shelter is located in the Soutpansberg region.

Kaoxa's Shelter (**Fig. 5.2**) is situated on the Machete Game Farm (owned by the MacWhirter family), within a private section along the southern edge of the Mapungubwe National Park (MNP). The section is surrounded on three sides by the park. The site is part of the Mapungubwe Cultural Landscape, declared a World Heritage Site in 2003 in recognition of the abundant repository of cultural artefacts along with the natural attributes of the land. The broader region, which includes areas of north-eastern South Africa, south-eastern Botswana and south-western Zimbabwe, is known as the Limpopo-Shashe confluence area (LSCA). San hunter-gatherers, Khoekhoe herders and Iron Age farmers converged on the region, leaving archaeological and historical traces that can be linked to the histories of the different communities and their interactions. The descendants of these early people include the Hietshware, the Tshivula Royal Family, the Vhavenda-Vhangona-Vhalakwanaire nation, the Vhalemba, the Leshiba, and the Kalahari San.

Kaoxa's Shelter was named after the divinity Kaoxa, described as 'Lord of the Animals' (Eastwood & Eastwood 2006: 91). Kaoxa's Shelter site imagery reflects the oral history of prolific animal presence in the spirit world where different animal species intermingle peacefully:

> When Kaoxa sits on his chair, he watches all around. People say there are leopards there. People say there are zebras. They say locusts. They say lions. They say jackals. They're in his house, right in his very house. Elands are there. Giraffes are there. Gemsboks are there. Kudu are there. These things don't kill each other. They are God's possessions. (Old K'xau, a !Kung shaman (cf. Biesele 1980, 1993; Eastwood & Eastwood 2006: 91)

Paintings in Kaoxa's Shelter feature some of the animals mentioned in the excerpt above. The paintings of animals in Kaoxa's Shelter totalling nearly 200 figures include 16 species of animals (Biesele [1979] 1991: 51; Eastwood et al. 2000: 5; Eastwood & Eastwood 2006: 91). Other imagery includes human figures, groups of men and women and loincloth and/or apron imagery indicative of gender-specific initiation rites.

Kaoxa's Shelter is recognised as a site that includes the simultaneous occurrence of rock paintings and engravings (Eastwood & Eastwood 2006). Three iterations of artistic style are evident here comprising the fine-line tradition of San hunter-gatherers, finger painting of Khoekhoe and engravings of early Iron Age farmers. The engravings include a game board as well as some engraved features integrated into the



Fig. 5.2. Kaoxa's Shelter, Machete Game Farm, Limpopo, located near Mapungubwe National Park. Photographed by Dr Deborah Sanders, July 2014

paintings. The rock shelter is layered in a quasi-chronological sequence, moving from the earliest fine-line

tradition with overlying expression in both fine-line and more recent Khoekhoe herder finger paintings. As you move into the depths of the shelter, the imagery sequence follows from fine-line tradition on the outer edge of the rock shelter face, with herder finger painting occurring at the farther recesses of the shelter and herder imagery overlapped by abstract Iron Age motifs (**Fig. 5.5**).

In every tradition represented, stylistic rendering distinguishes each sequence incorporating the physical attributes of the natural environment in a particular way. Configurations of red, black and white across the

painting traditions suggesting the presence of the triad occur as a polyphonic cacophony of colour, intricately displayed in the polychrome imagery. Each colour is contrasted with another colour in the bichrome figures or through a single colour in a monochromatic scheme. The mono-/bi-/polychrome designation in the rock art literature typically refers to colour use within individual motifs. However, this study is interested in the inter-motif articulation of colours across entire panels.

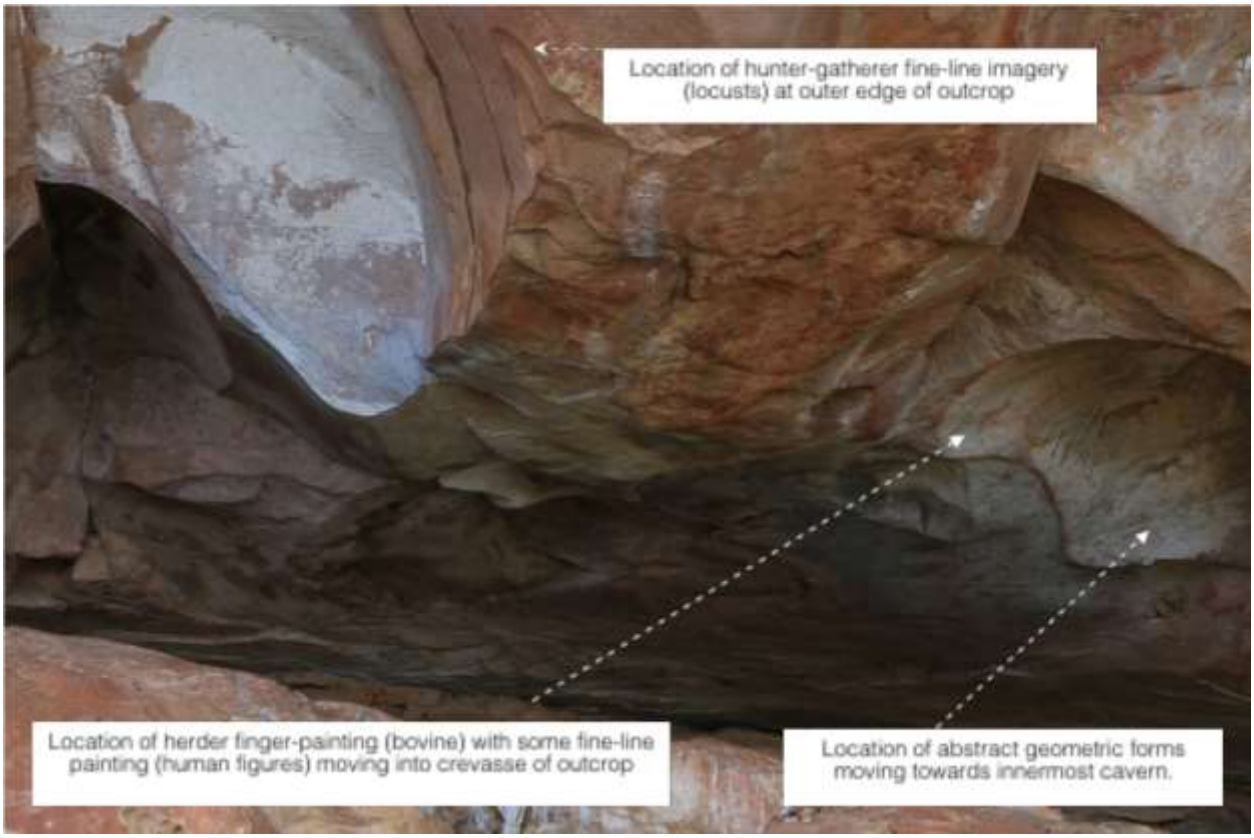


Fig. 5.3. Detail of Kaoxa's Shelter: outcrop showing the succession of imagery moving from the outer edge of the rock shelter with fine-line paintings to the herder finger painted imagery as you progress further into the inner chamber of the crevasse, with the abstract geometric forms at the innermost cavern of the scarp. Photographed by Dr Deborah Sanders



Fig. 5.4. Panoramic view of Kaoxa's Shelter with designation of giraffe motif. Photographed by Dr Deborah Sanders



Fig. 5.5. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif. Slide, RARI EEC RSA MAC1 41, 2017-04-03. Photographed by Edward Eastwood, Rock Art Research Institute, University of the Witwatersrand, © Rock Art Research Institute.

Giraffe, A 'Great Meat Animal'

The giraffe has been consistently identified as a spiritually potent animal within San cosmology (Lewis-Williams et al. 2000: 129; Eastwood & Eastwood 2006: 98–99, 179). It has been intimately connected to spiritual travel (Biesele 1980: 56, 61; Lewis-Williams et al. 2000: 129) and essential weather patterns, most significantly rain (Eastwood & Eastwood 2006: 99). The giraffe also represents one of the most painted animals in the Limpopo basin, along with the kudu, tsessebe, hartebeest, impala and elephant (Eastwood & Eastwood 2006: 95). Of particular relevance to this study of colour, Eastwood and Eastwood (Ibid.) draw attention to the precision and detail of these animals in their depiction, which often includes more than one colour.

Within the San painting tradition, certain animals were rendered with great detail and care. The particular choice of animal varied regionally linked to the respective facets of belief of diverse San groups. For example, the eland imagery in the south-eastern mountains of southern Africa is a favoured and complexly rendered image. In areas of Botswana and Namibia the gemsbok, springbok and giraffe, are intricately depicted, while the giraffe and the kudu predominate in the northern parts of South Africa (Limpopo basin) and in parts of Zimbabwe and Botswana (Eastwood & Eastwood 2006: 95).

The naturalistic lattice depiction of the giraffe hide appears to have topographical resonance based on visual resemblance. The land and home territory of the Flat Bushman and |Xam informant ||Kabbo, located east of the Hartbees River between Kenhardt and Olifantvlei in the Northern Cape, provides examples of this topographical design. This area encompasses the 'Bitterpits', which ||Kabbo refers to as his home (Deacon 1986; Deacon & Foster 2005). It is the appearance of the dry, cracked land here that abuts the waterhole, which resembles the giraffe's hide (**Fig. 5.6**). The apparently random yet organised scalloped soil, tenuously etched by the blight of the sun, resembles, quite remarkably, the interlocking polygonal shapes of the giraffe hide.

This topographical design is the result of both lack and abundance of rain and sun; the interaction of acute expressions of two seemingly opposed natural elements responsible for this intricate display. For the Ju|'hoan, these opposing concepts are best subsumed under the metaphor of transformation, or *n!ao*, '|*Am* and *g!a*, sun and rain are the opposites which informants connect with *n!ao*' (Biesele 1993: 108).

The intricate design of the giraffe hide could represent the cloud formations that gather to eventually produce rain (**Fig. 5.7**). It can also be a visual marker for the intercession between natural cloud coverage and the invocation of rain as 'the forms of certain clouds resemble giraffes' (Marshall 1957: 239; Eastwood & Eastwood 2006: 100). The association of rain and cloud cover with giraffe hide markings is well established among the !Kung (Eastwood & Eastwood 2006: 100, 101) and may have alluded to a

symbiotic relationship, where ‘the patterns of certain cloud formations invoke the markings on their hides’ (Marshall 1957: 239; Eastwood & Eastwood 2006: 100).

While the pictorial occurrence of certain animal species is often tied to regional areas and the artistic and social inclinations of the San groups that occupied these spaces, there is some consensus regarding the origins of animal attributes across these diverse groups. This is most evident in the San oral literature of the Ju|’hoan regarding ‘The Branding of Animals’ recorded by Biesele (1993), which exemplifies the imbuing of spiritual potency on certain animals during the First Order of Existence, a time when the distinction between animals and humans was not yet clearly defined:

> Long ago, they [the original San] were all sitting around talking together. They talked and discussed things, and they said, ‘Today we’re going to *n=om ka n|om* [create *n|om*]. Then we’ll write the name of all the animals on their hides. Today we’ll *n=om ka n|om*, and we’ll use it to give a different design to each animal. From today people will no longer be people but will have markings and be animals.’ So they created *n|om*. They gave names to all the animals; they told each his name. ‘Today we’re going to brand you so that you will be animals from this day’. (Biesele 1993: 116; Eastwood 2006: 94)
>
> They imitated the markings of the giraffe, too: they were busy making designs on the other animals when the giraffe came by to see what was going on. The giraffe stepped through the crowd and came rocking forward on his long legs. ‘Sa-ay,’ murmured the people. ‘Isn’t this one pretty?’ Then they drew giraffe designs on some of the people, and these were beautiful too. (Biesele 1993: 117; Eastwood & Eastwood 2006: 99).

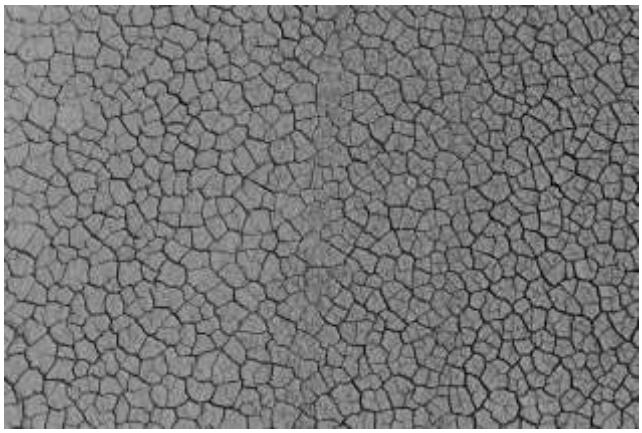


Fig. 5.6. Topographical landscape, Photograph in Public Domain

Although humans are generally rendered as 'monochrome' at Kaoxa's Shelter, in the referenced quote, the 'branding' of particular animals could be said to involve the visual articulation of colours in contrasting patterns that indicate identity and conceptual complexity. The colour specificity attributed to animals is also evident in the ethnographic reference to the natural colouring of the gemsbok, hartebeest, quagga and springbok based on the type of honey they were fed by the Mantis (Bleek 1923: 10). Wessels describes this association with colour as 'not simply descriptive: it signifies identity; it gives these animals their particularity' (2010: 140).



Fig. 5.7. Mapungubwe National Park, Limpopo Province, Photographed by the author, 2014



Fig. 5.8. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif (detail). Photograph courtesy of Dr Deborah Sanders



Fig. 5.9. (Detail) Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif. Slide, RARI EEC RSA MAC1 41, 2017-04-03. Photographed by Edward Eastwood, Rock Art Research Institute, University of the Witwatersrand, © Rock Art Research Institute

Biesele (1993) notes that when her informants spoke of a select group of animals termed 'Great Meat Animals' or large prey animals, there was an air of reverence evoked by the storyteller. Among these 'Great Meat Animals' is the giraffe, which is believed by the San to possess great potency (Biesele 1993: 69). Something akin to the hushed awe in the voice of the storyteller is present visually in the hand of the painter, as the giraffe are exceptionally finely rendered at Kaoxa's Shelter (**Figs. 5.8, 5.9).**

Hampson et al. (2002: 20) note the categorisation of various animals including the giraffe in the ethnographic record:

> It seems that throughout southern Africa there was an emphasis on 'red meat' antelope (Biesele 1993) and often, although not always, on large antelope. The Ju|'hoan San categorize animals according to the perceived colour of their meat (Biesele 1975), distinguishing red, white and black meat animals. 'Red meat' animals (the subgroup de=xe) comprise several antelope: kudu, eland, gemsbok, springbok, hartebeest, tsessebe, as well as giraffe. 'White meat', closely associated with carnivores, includes lion, leopard, and leguaan (the monitor lizard); it is generally avoided. 'Black meat' animals include warthog, bat-eared fox, and wildebeest, the only large antelope that does not fall into the red meat category (Biesele 1975). In another list, the roan antelope is included as a 'great meat' animal. (Biesele 1975).

The classification of these animals into colour categories ties into the black-white-red triad and interlinks conceptual and adjectival examples. Other 'Great Meat Animals' such as the kudu are depicted with the same detailed elaboration at Kaoxa's Shelter. The eland is most commonly depicted in the south-eastern mountainous region, often in elaborately polychrome expressions. To my knowledge, the gemsbok has not been identified as polychromatic at this site, but there is a colourful and 'faithfully rendered' example in the Mapungubwe area (Eastwood & Eastwood 2006: 104).

Colour as an Egress for Radiance, or Light—Technical Use of Colour

The findings on colour as a technical tool in the paint patch analysis (Chapter 2) reveal an association with 'light' that can be also understood as 'spiritual light'. In a range of different contexts, light can be perceived as a vehicle for transformation. Transformation and the concept of light are underlying tenets that span the technical processes of manufacturing, application and interaction with colouring agents or pigment. This may be through the preparation of the pigments possibly by fire or tonal additives. The *imprimatura*, or technique of colour zone application of the paint, along with the geological evidence of triboluminescence or other natural luminescent qualities of the rock face, may illustrate the interactive role of colour.

Securing the pigment used for the San painting process was a ritualised event as discussed thoroughly in Chapter 2. Verbal accounts have confirmed particular localities for the obtainment of special pigments, such as the high basalt formation of the uKhahlamba-Drakensberg in south-eastern South Africa (How 1962: 34; Lewis-Williams 2002: 255; Lewis-Williams & Challis 2011: 7) and the Ngwenya Ridge and specular-haematite mine of Lion cavern (Watts 2002: 6) in Swaziland. However, no significant information related to pigment sourcing has been collected specific to the Mapungubwe area. Yet the composition of the paint medium is also pertinent, and it is likely to draw from locally available ochre deposits. In the Limpopo (including the LSCA) and Mpumalanga provinces, ochre deposits have been described as

'metalliferous rocks' where haematite and specularite are most prominent (Watts 2002: 6).

Ingredients were surely collected locally and possibly supplemented with special substances that came from further afield. While there is no record of the specific place where the pigment was secured for the Mapungubwe Limpopo basin region, we can see a variance in colour. The paint itself might well turn out to be a 'record' of pigment provenance, although further studies are needed. The range in colour occurs even within a single hue such as red and is particularly evident in the depiction of the giraffe at Kaoxa's Shelter (**Fig. 5.10**).

The body of the giraffe in the panel (**Fig. 5.10**) embodies at least three modulations of red, from a dark chestnut-red, nearly black, at the rear hindquarters of the animal and immediate outer edges to a red-orange hue at the central region that develops towards a maroon tone along the bulge of the belly. The varied red pigments, particularly the two darker red hues, are possibly the result of the addition of an iron-rich haematite and are visibly distinct in the articulation of the giraffe in the panel.

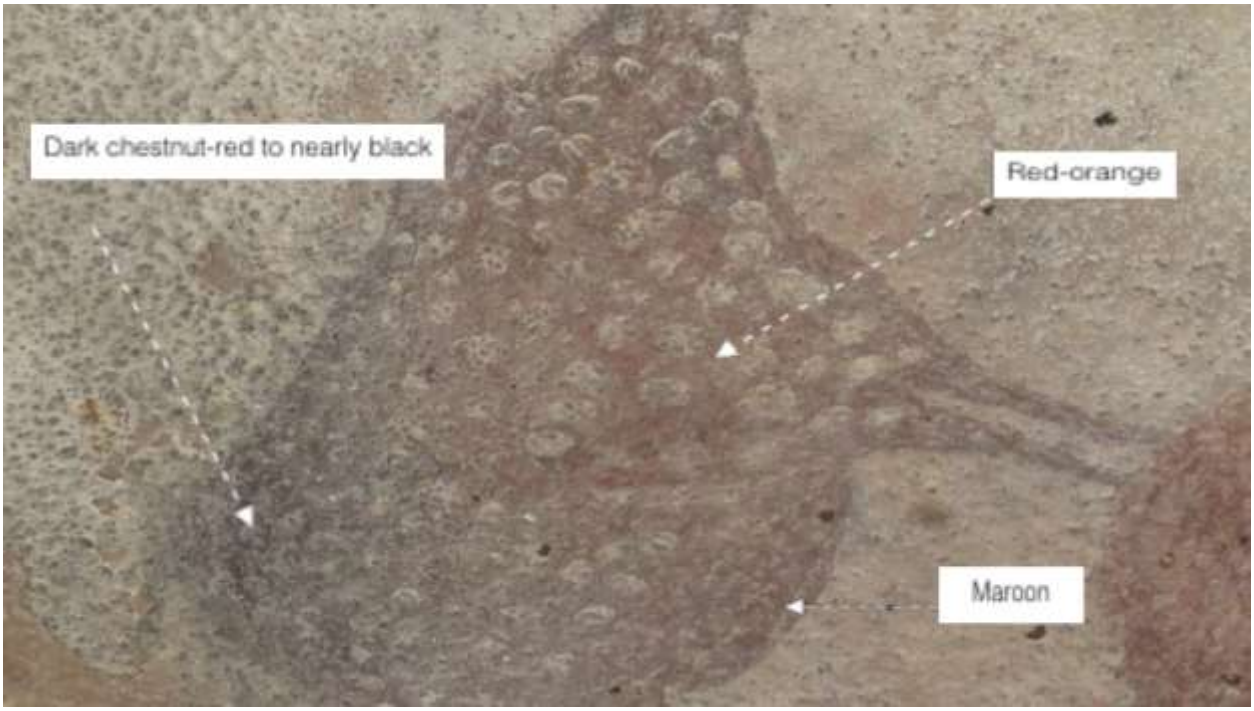


Fig. 5.10. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif (detail). Red tonal variations. Photograph courtesy of Dr Deborah Sanders

These variations could also be due to differential weathering of the paint, but because the colour follows the sculptural form of the giraffe it is plausible that this was a deliberate effect created by the artist. The different varieties of red may have been achieved during the ritual preparation of a red pigment over the fire. Another possibility is the modulation of colour through the purposeful additions of other colours,



Fig. 5.11. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif (detail). Photograph courtesy of Dr Deborah Sanders

including hues belonging to the triad. This might have been achieved using the subtle tonal gradients, with the resultant hues such as chestnut red and maroon produced by adding black or other shade. In addition, a red-orange or muted pure red could be the result of adding tint—white, or analogous yellow. This example may demonstrate the various ways in which the colour red was modulated for conceptual as well as pictorial effect.

This singular giraffe occurs within a set of imagery as described above with its own colour variance and complexities. Even with the instability of painting chronologies,[42] the close observation of colour provides an opportunity to see a distinct change in possible painting episodes as they occur in a panel or larger composition. It is more difficult to determine the period separating each episode, which could vary from a few hours to hundreds or even thousands of years. The giraffe motif (**Figs. 5.5, 5.11**) is rendered in dark tones similar to the adjacent wildebeest and indeterminate antelope, which contrasts with the brighter red hue of the kudu painted in a layer that overlays the giraffe and antelope.

The varying hues indicate that San artist used broader conceptual aspects of scenic design. This challenges the notion of an arbitrary selection of colour. The presumed limitation of the San artists using only the naturally occurring pigments or colours immediately available to them in the landscape is

[42] A visual approach is adopted for this study. This approach is counterbalanced by inherent restrictions. Wherever possible, non-visual aspects of the painting practice are articulated. However, engagement with these non-visual aspects to a substantial degree presents an opportunity for further research and falls outside of the scope of this study.

debatable. The artists' choice in colour variance, or the purposeful manipulation through fire or other intervention to achieve a darker hue is plausible. These factors could further our understanding of the artists and their deliberate act of extending and manipulating the colour choices available to them. We can strive for a deeper understanding of why this colour choice is pertinent, not only to the harmonising of composition but also to the conceptual framework substantiated by facets of San cosmology.

Colour choice also gives prominence to implications of a visual aesthetic, similar to that of the literary, or oral discursive design that is never linear but always circuitously reframing concepts. Oral literary traditions based in a particular ontological framework (Gates 1988) may extend to visual platforms of creativity. These discursive forms bear meaning on the overarching concepts of life, death, transformation and regeneration, which pave the way for subtle cognitive and artistic modalities. In general, colour choice, just as word or concept choice, reinforces the idea of the San painting practice being a complex process involving multiple stages of meaningful material engagement.

The colour technique of *imprimatura* was pertinent particularly in the application of paint, as explored in Chapter 2. *Imprimatura* is an Italian term that refers to artistic composition where an underlayer of paint acts as a reflector of light for subsequent coats of paint. This investigation was directed to the paint patch motif, best known from the Cederberg region. Formal attributes of the imagery, such as the use of an underlayer, are discernible in the creative process producing the effect of depth and reflecting light simultaneously in Kaoxa's Shelter.

The *imprimatura* technique may also be observed in the polychrome giraffe motif. The hindquarters, neck and underbelly of the animal clearly have the darker red pigment at the top surface layer of paint, with the exception of the white dots which form the uppermost layer. An orange-red coat appears at the centre of the image and appears to be the initial layer upon which the darker red has been applied (**Fig. 5.12**). This colour modelling draws the viewer into the innermost portion of the imagery as the eye discerns depth and the replication of the muscular dimension of the animal's front right leg and underbelly. This colour layering not only provides scale but reflects the light, since the tonal differences in the red allow the lighter red hue to reflect light as the darker red absorbs light.

The spots that cover the giraffe's body appear to be accented in black near the perimeter of the neck, while others are thickly applied in white only. An additional detail is the depiction of fine short vertical red lines at the nape of the neck of the giraffe (**Fig. 5.13**). This small detail in the mane accentuates the change in colour of the outline of the giraffe, which is clearly black along the head, neck and back. Curiously, it changes into a sinuous red outline along the frontal area under the neck and down to the anterior portion of the legs and underbelly, while the black outline seems to resume at the backs of the legs.



Fig. 5.12. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif (detail). Photograph courtesy of Dr Deborah Sanders



Fig. 5.13. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif (detail), white dots along the neck accented with black. Fine red lines have been added to the base of the back of the neck. Photograph courtesy of Dr Deborah Sanders

The *imprimatura* technique can be implemented in countless ways reflecting the incalculable creative agency of the individual artist who deliberately seeks to manipulate the reflection of light. However, there are some fundamental characteristics that quantify this methodology for the results it can produce in a given work of art. According to the presentation 'An Integrated Approach for the Study of Painting Techniques' included in the 1995 volume of preprints prepared for the international symposium, Historical Painting Techniques, Materials and Studio Practice at the University of Leiden, the *imprimatura* technique traditionally served to:

> […] establish a middle tone. […] Color applied as thin transparent glazes allowed the fully developed underpainting to define the forms while the color itself remained clean, pure, and unadulterated. (Barrett & Stulik 1995: 8)

While this *imprimatura* allocation was specific to the unfinished panel of *Santa Barbara* by Jan van Eyck, there is some relevance to the giraffe motif under discussion. The slightly orange-red initial layer of paint at the centre of the image serves as a middle tone upon which more prominent colours are overlaid. A level of retention of the inherent brightness of the other hues occurs while creating depth. Similar to the white impasto highlights depicted on the hide of the giraffe is the following iteration of the same *imprimatura* technique, with slight variance typical of Baroque masters:

> The artist tones the surface with a middle or darker value, then creates the image with an underpainting of washes that may be controlled or completely free and spontaneous. The

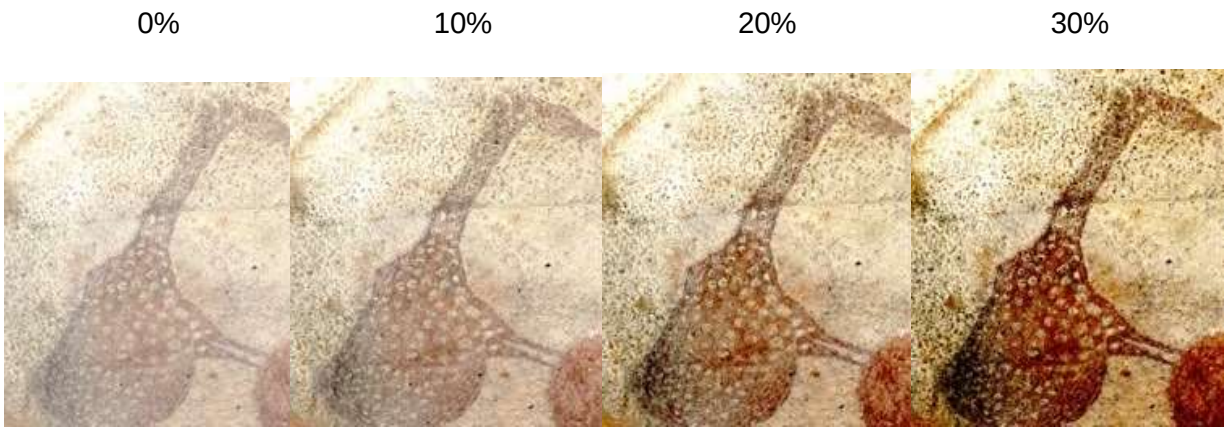


Fig. 5.14. Kaoxa's Shelter, Machete Game Farm, Limpopo. Giraffe motif detail. *Imprimatura* effect illustrated through manipulated contrast of the photographic image. Image manipulation by the author, August 2018

> areas of the painting to be highlighted are now created with a heavy impasto white paint. This simple procedure accomplishes the same optical effects as the complete monochromatic underpainting […] yet it allows the image to evolve as it is constructed. The continued separation of value from color still allows for beautiful luminous color. Because the image originates in the loose, dark washes, contours need not be highly defined […] This technique provides very specific optical markers. The darks are thin and transparent, often revealing the preliminary wash or *imprimatura*. The high-lights that define the volume appear thick and visibly raised from the painted surface. (Barrett & Stulik 1995: 8)

This *imprimatura* or colour layering of the giraffe motif can be best seen through the manipulation of the original photograph (**Fig. 5.14**). For purposes of this explanation, the photograph has been incrementally adjusted by contrast from 10% to 0% in the first frame and 30% in the final frame. The narrow tonal range in the first frame exhibits less contrast, but as the image was adjusted, the wider tonal range resulted in more mid-tone values increasing the visibility of the *imprimatura* technique through explicitly producing



Fig. 5.15. Kaoxa's Shelter, Machete Game Farm, Limpopo. Examples showing natural designs on the rock face, which include **(top left)** circular indentations; **(top right)** puckered and incised circular hollows; **(bottom left)** stratified lattice across the rock face; and **(bottom right)** undulating rock and small nobler spherical manifestations on surface. Photographed by Dr Deborah Sanders, July 2014

greater contrast.

The surface of the rock face is vitally important to the placement of painted imagery, and supports my inclusion of the function of colour in interaction with the rock face. As such, the giraffe appears to be placed deliberately next to the dotted surface of the rock. It looks as if the dots are concentrated around where the giraffe is placed, perhaps a conscious choice to associate a spotted animal with a spotted stretch of rock (**Fig. 5.15 bottom right**). The dots painted on the giraffe look remarkably similar to the dots on the rock surface next to it. Some of the dots, moreover, seem to have been deliberately incorporated into the pattern on the giraffe, actually forming round gaps in the paint.

Research into the geological development of the area shows that within the Tshipise Basin where Kaoxa's Shelter is located, the deposition of the aeolian Clarens Formation has sustained episodic water-saturated conditions (Bordy 2008: 2). These wetter phases during the Lower Jurassic Clarens Formation of southern Africa may have led to the enigmatic horizontal and undulating rich surface irregularities and sediment deformation we see today (Bordy 2008: 3–5). Often, polychrome images of animals that are

affiliated with spiritual potency are depicted near these enigmatic anomalies in the rock face. Perhaps there is a connection between the geological sediment formation refined as natural modulations of the rock face and the placement of polychrome imagery. Natural rock occurrences that appear pictorially relevant to polychrome imagery include undulating rock curvatures, nodular spherical beading, stratified linear lattice and circular indentations (**Fig. 5.15**). While the period between the development of the Clarens Formation and the possible adaptation of the rock surface by the San hunter-gatherers for image-making purposes is vast, the use of geological formations due to weathering associated with water is an intriguing aspect of an artistic practice predicated on the harnessing of this natural force.

A standard feature of the rock surface at Kaoxa's Shelter associated with its geological morphology are the various bioturbation sandstone attributes, such as nodular spherical manifestations, stratified lattice, circular surface indentations and enigmatic undulations on the rock face (**Fig. 5.15**). While disturbances in the sediment are the result of environmental conditions, proximity to the imagery cannot be overlooked as crucial to compositional placement and paramount in the interpretation of symbolism.

There are various links between the geological patterns and the paintings consistent with the idea that the rock is an integral part of the art, and not merely a surface onto which the paint is applied. This can vary from a mimicking of the natural markings to an incorporation of these features into the imagery for their scenic role, texture, colour, but likely also for conceptual purposes.



Fig. 5.16. Left. Giraffe motif absent spots from Mokerong 2, Northern Province (Limpopo). [Site Id: RSA HAA6] RSA HAA6 4. Photography by Rock Art Research Institute, University of the Witwatersrand
Centre. Giraffe motif with reticulated detailing of spots from Soutpansberg, Northern Province (Limpopo). [Site Id: RSA LIT2] RARI EEC RSA LIT2 22. Photography by Rock Art Research Institute, University of the Witwatersrand
Right. Kaoxa's Shelter, Machete Game Reserve, Limpopo. Giraffe motif rendered with stylised spots. Photograph courtesy of Dr Deborah Sanders

The Relationship Between Motif and Pattern, Colour Aesthetic

The aesthetic variants of the giraffe motif are predicated on the distinctive coat markings that are unique to the giraffe. A cursory regional overview based on available scholarship of giraffe depictions has established a basis for the patterned imagery of this motif. The most recognisable depiction of the giraffe motif typically includes a schematically but elegantly poised stance with the neck of the animal drawn forward and legs stabilised and intricately modelled. Three notable variations to this motif have been recorded in the Northern Province (Limpopo), including the example discussed above at Kaoxa's Shelter (**Fig. 5.16**). These aesthetic variants of the giraffe motif include the coat markings unique to the giraffe and may have communicated analogical meaning for the San.

While there are many variations on the giraffe motif regionally in the Mapungubwe Cultural Landscape, at this site there are clear similarities expressed in the motif. Eastwood and Eastwood (2006) noted the care and intricate painted detail of these animals and the typical use of more than one colour. At Kaoxa's Shelter, giraffe motifs range from the San fine-line tradition through the daubed finger-paintings of the Khoekhoe and display a range of technical skill.

Upon close inspection of the giraffe motif and its compositional make-up, there are vital design elements that work towards both specificity and generalisation of the imagery. The relationship of broad pattern to specific expression is similar to that found in a musical composition, where theme and variation are used to unify a musical form, yet also add distinction within a set structure. This recalls the motif/pattern relationship discussed previously in relation to the 'threads of light' motif within an aesthetic colour paradigm.

Colour plays an integral role in the establishment of patterns on a referent in this particular motif. A subtle shift in colour makes a marked visual distinction through the giraffe's hide markings. Three significant iterations of hide markings have been identified that pose a pattern in the motif and may convey subsequent markers for dynamic contextual signification. The giraffe motif from Mokerong 2 (**Fig. 5.16 left**) has no explicitly painted hide markings, appearing in the other examples with a different colour of paint. Yet, tonal aspects of the imagery contribute to colour contrast, where the red tone of the rock face contrasts with the subtle black outlining details of the white giraffe. This is an interesting example of the black-white-red triad conveying compositional unity.

Another variation on the giraffe motif is shown in the example from site LIT2 (Soutpansberg) (**Fig. 5.16 centre**), which appears to be an attempt to replicate the complex hide markings naturalistically. This aesthetic design includes a complex lattice network of colour which simulates the fleeting and individualistic geometric patterning of a giraffe's coat. This is accomplished through the sophisticated layering of colour and shadow. Once again, the colours making up the triad is decipherable in the colour registers present.

This is an exceptional example of a pair of giraffe (**Fig. 5.16 centre**) presenting the poised and elegant stance of the motif, yet with the variant of the hide expressed in two different colour palettes, one orange-red and the other chestnut-red. This dual colour scheme provides an opportunity to see the same technique applied in different colours with a distinctly different tonal key, yet both warm. Likewise, in both instances the triad supports the reticulated pattern of the hide with the white background serving as a contrast to red, expressed as both red-orange and chestnut-red polygonal hide markings. This is further emphasised through intermittent tones of black as a shadow to convey three-dimensionality.

The third and final iteration of the giraffe motif considered here is the polychrome fine-line giraffe of Kaoxa's Shelter (**Fig. 5.16 right**). It adheres to the intricately composed balance and elegance of the motif, although the stance is more lyrical with the legs further outstretched, in part to accommodate the bulging underbelly (potentially an indication of pregnancy). These artistic deviations are minor compared

to the glaringly unique portrayal of the hide design. As an explicit pattern, the markings of this giraffe appear as heavily applied encaustic white pigment circles or semicircles on a red underlayer of the giraffe's body. To further accentuate the thickly applied white spots, the addition of black paint creates the aforementioned circular and semi-circular hide markings that resemble a stylised rendition of the patterned coat. This specific giraffe variant in relation to a recurrent motif opens a path to understanding the metaphoric realm of colour.

It is in this articulation of contrasting colours that the aesthetic or conceptual component might be expressed, where visual components in the technical aspect begin to formulate design. The visual then evolves into the motif-related. Aesthetic arrangements are then subsequently organised into formal references that can be used as comparative systems. The giraffe motif clearly represents a distinguishable visual cue, in that it can be clearly identified as a specific animal. In this way it also represents a stable sign in the larger compositional design, no matter the rendering of that motif, as long as it retains the reliable cues for it to be identified as a giraffe. The significance of conducting this comparison of the motif/pattern distinction helps to identify shifting expression of the patterned derivative.

Implications of Meaning, Colour Metaphor

> The *zam*[43] is not the only animal, however, whose special power is utilised to help men develop the *n*|*om* that is potential within them. A number of animals thought to be very strong are closely connected with the *n*|*om* of the trance dance. In the account given by the *n*|*omkxao* named Kxao Giraffe, for instance, the connection was quite explicit. Kxao […] told me that his power as a trancer and as a curer partook of the giraffe's power. (Biesele 1993: 94)

In this quote, Biesele (1993) discusses the interconnectivity of animal power and trance. The sentiment on potency explicated therein corresponds with the metaphoric concept of 'actualisation' examined in Chapter 4. Actualisation is the shift from one form to another which requires an energy of action similar to potency. The acknowledged dual role of the giraffe as a spirit guide and source of *n*|*om* extends further as a third, subtle and easily under-recognised state of the dormant *n*|*om*. This dormancy, or interstasis, is ignited by animals of potency such as the giraffe and may hold clues for the colour designations in the imagery related to such potential shifts in meaning.

As previously discussed in the aesthetic colour investigation, there are three iterations of the giraffe motif to consider as variations on a pattern. The noted variants of the giraffe motif include changes that occurred in the reticulated patterning of the animal's coat. The technical analysis of colour also revealed a

[43] The word *zam* has a dual meaning according to Biesele (1993: 93), referring to both the tortoise and the medicine box that is made from its shell.

particular emphasis on colour layering that aided in the pronounced depiction of volume on the animal in general and the hide spots specifically. This can be compared with the two-dimensionality of the engraving depicted in George Stow's drawing (**Fig. 5.17)**. This hide patterning is a crucial conceptual attribute that has been closely associated with cloud formations as indicators of rain in the ethnography. Rain is significant in San cosmology as an atmospheric force that can be manipulated by a shaman (Biesele 1993; Eastwood & Eastwood 2006).

The stylised hide variant at Kaoxa's Shelter and the other aesthetic modifications of this convention are critical to the clarification of a recurrent motif and its visual authority. The relationship between pattern and motif provides the necessary structure upon which to draw other conclusions. The conceptual and contextual changes through variants indicate not only a pictorial shift, but the carrier of new meaning and intentionality. Interestingly, these three types of hide treatments (naturalistic markings, stylised markings, no markings) and their association with rain (Eastwood & Eastwood 2006: 100, 101) resonate metaphorically with literary colour analogies.

In the case of the giraffe pattern that lacks hide markings (**Fig. 5.16**), this lack of markings due to the rendering in a singular colour may suggest an absence of the synergetic relationship to rain and cloud formation. As previously stated in the ethnography, white is often associated with the early stages of development and red with a prime stage of maturation. Perhaps this has pictorial resonance in the giraffe motif that is painted in a single colour white or red (sometimes yellow) regionally.

The naturalism of the reticulated hide as a variant of the aesthetic motif resonates with topographical landscapes and weather patterns. The !Kung believed certain cloud formations 'invoke' hide patterns (Marshall 1957: 239; Eastwood & Eastwood 2006: 100). The naturalistic lattice variant in the depiction of the hide from Soutpansberg appears to have topographical resonance with |Xam informant ||Kabbo's home in the Bitterpits (Deacon 1986). The topographical design of this region retains the presence of both rain and drought in its scalloped, broken soil, akin to the reticulated pattern of a giraffe hide. The dual nature of wet rain and dry soil connects with the Ju|h'oan concept of *n!ao*, or potency (Biesele 1993: 108).

The stylised variant in the giraffe motif from Kaoxa's Shelter may correlate to cloud formation, rain security and the liminality between transformation and materiality. This version lacks the simplistic singularity of colour and hide markings that may convey a beginning phase of maturity. It also omits the naturalistic rendering of finely reticulated bichrome hide markings observable in the LIT2 example, that would be modelled more closely after a real giraffe. The stylised pattern of the motif stands at the intersection of the simplistic monochrome design and the highly naturalistic version—a midpoint between the two other variants. While the colour rendering is complex, its lyrical formal treatment suggests that it lies outside the domain of the representational and at the forefront of the allegorical. Perhaps, this detail

places this particular pattern within the symbolic realm of San cosmology and with ‘red meat’ critical to healing practices and trancing:

> […] it is the red meat species that are especially invoked in the San healing or medicine dance […] (Hampson 2005: 92, 93)

> The giraffe also features in a well-known Ju|h’oan medicine song developed after a woman called Beh saw a herd of giraffe galloping ahead of an approaching thunderstorm. (Biesele 1993: 67–70; Brunton & Badenhorst 2013)

This relates to a colour paradigm articulated by Anne Solomon. The ‘fertility hypothesis’ (Solomon 1989) examined in her Master’s dissertation and analysis of the ‘thin red line’ (1989: 100–104) fringed with white dots known today as ‘threads of light’ are both relevant. Solomon interprets the ‘threads of light’ motif as an indication of the blood/water binary, which supports her fertility hypothesis. The interest of this study is in the postulated indirect colour connotation. The red/white and blood/water counterpart has not since been closely examined in rock art investigative studies. This is of interest to this study because of the red/white contrast. The ‘threads of light’ motif was discussed in detail in Chapter 3 and analysed for its aesthetic implications. Here, its use in the fertility imagery resonates with the stylised iteration of the giraffe motif convention. Solomon (1989: 103) suggests the following association with water:

> Examples include the occurrence of dots on animals identified by San informants as rain animals (for example, see Woodhouse 1985) and the depiction of sweat from a trancer’s armpit as dots […] Dia!kwain’s interpretation of paintings commented on by Orpen’s informant, Qing, included the statement that ‘The strokes indicate rain’ (Orpen 1874: 4) this indicates the representation of rain in the art. I suggested above that the dots/dashes on the torso of the ‘moon goddess’ represent rain; therianthropic rain-makers around a bound eland (fig. 13) are similarly marked. The dashes surrounding the Mrewa Cave ‘mother goddess’ are interpreted by Huffman (1983) as bees, but more probably represent rain in association with feminine fertility imagery, since these are not the winged images which have been identified as bees in other paintings. Lewis-Williams (1981b:12) suggested that the dots may represent the footprints of the medicine man, thereby acknowledging the association of dots with rain imagery. However, a more likely interpretation is that dots represent the rain itself, or the footprints of the rain animal. Marshall (1957) and Thomas (1959) both comment on the contemporary !Kung accounts of the rain’s footprints and the distinctive spoor of male and female rain (animals). In view of the prominence of rain imagery in the art, its depiction is very probable.

It may be possible that the dots on the stylised giraffe represent rain, especially with previously explored ethnographic references that include analogies to clouds and potency. In the Kaoxa's Shelter giraffe, the dots are rendered with a black contour indicating shadow and may foretell the dual nature of rain through colour emphasis as both providence and destruction. Colour concepts drawn from the imagery align with Solomon's early work on the depiction of rain and its visual impact as a pictorial affiliate, along with the red line 'as the graphic representation of the inter-relationship of blood and water' (1989: 104). In the stylised giraffe, we see a special emphasis on the colour red with at least three variations in tonal value.

The red/black/white trilogy resonates with its literary counterpart of rain/water/potency (*n*|*om*). Rain and water in |Xam are both termed !*Khwa,* and they inhabit powerful opposing influences of the same force and are often referred to as a duality. This could be reflected visually in the black/white dichotomy—one of the most commonly used visual/metaphorical devices to communicate polarity. The addition of the multi-tonal red could then be akin to potency, as the red dorsal lines on large animal motifs conceptually denote 'activated supernatural potency' (Eastwood & Eastwood 2006: 122).[44] While this particular giraffe motif lacks the red dorsal line, the explicit use of red for this detail elsewhere likely signals one of many polysemic visual cues. Solomon related the congruency of red and white in the 'threads of light' imagery to the blood/water parallel. This study extends that analysis further to suggest that the visual framework of *black/white/red* may correspondent to a conceptual trilogy of *rain/water/potency* (*n*|*om*).

The stylised giraffe hide markings could communicate a complex indicator of rain. The meaning lies in the specificity of the depiction, and that depiction is dependent upon the medium by which to express that particularity. The colour allocation acts as a vehicle for establishing meaning. This is shown through three iterations of a motif, whereby the variance may allude to the diversification in weather conditions and hence fluctuation of food security. This suggests a transformation or 'actualisation' whereby a state of being has been transfigured. It is this liminal zone that has been restructured into a visual representation of the quality of transience.

[44] It is important to note that Eastwood and Eastwood (2006: 122) estimated that the red dorsal line occurred on over two-thirds of all the images of giraffes (and elephants).

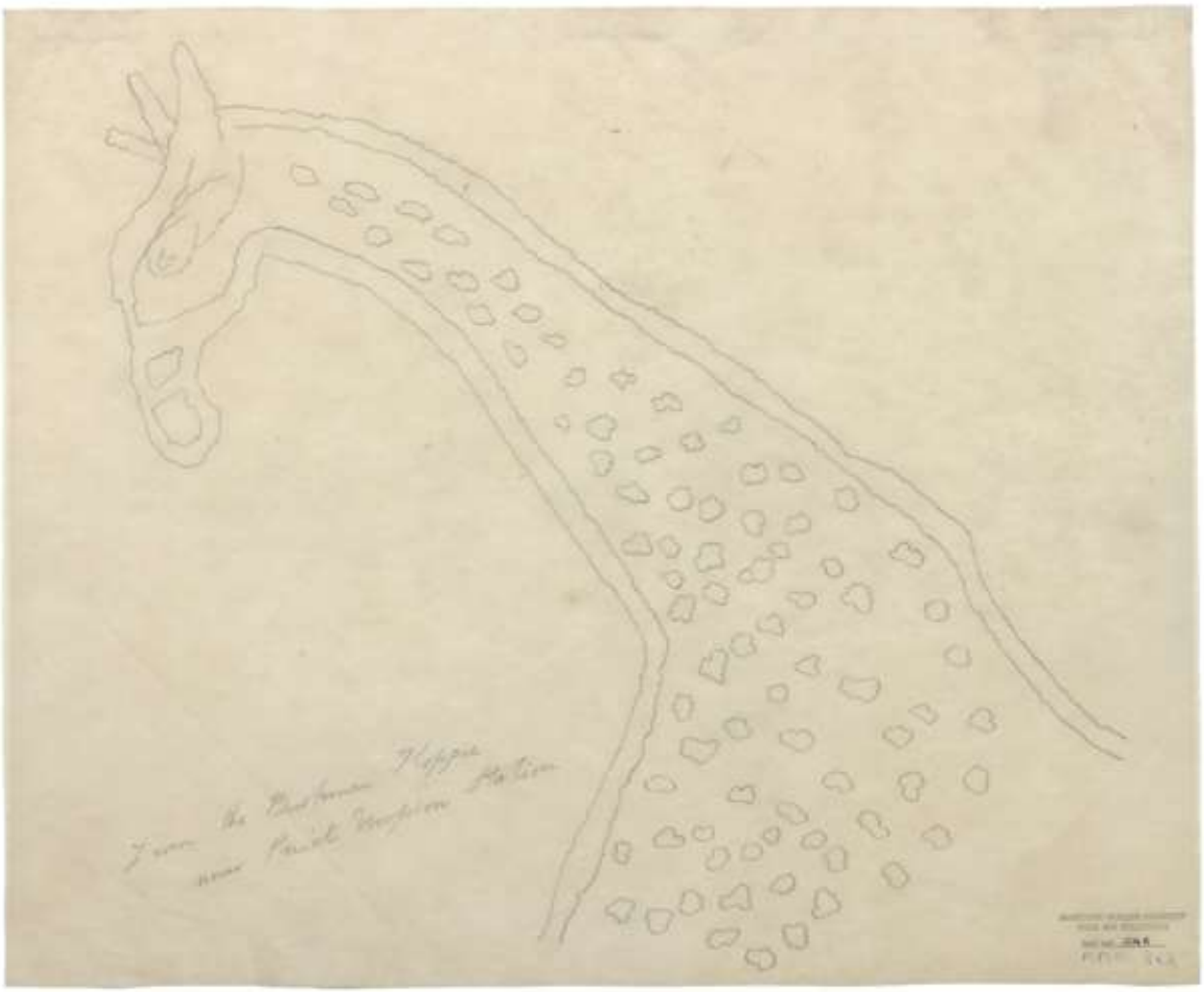


Fig. 5.17. Digital George Stow, Image: Stow 152, Pencil drawing on tracing paper (for 1284A) of an engraving near Pniel, of a giraffe. 'From the Bushman Koppie near Pniel Mission Station.' Source:
McGregor Museum: rac no. 1284B / MMK362 (old no.)

CHAPTER SIX – KAOXA'S SHELTER: KUDU AND FERTILITY

Then they took the kudu and stood the kudu by the fire. They branded the kudu with designs and then they said, 'Mm, this one will be the female kudu'. And they stood her aside. Then they marked the male kudu. They marked him and drew upon his hide, and then they stood the horns upon his head. Next, they branded the little stripes that run down his sides. The little stripes you see there today are the ones they made.

(Biesele 1993: 119)



Figure 6.1. Kaoxa's Shelter, Machete Game Farm, Limpopo. 'Kudu' motif. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2016

Female Kudu and Fertility

This chapter will explore technical, aesthetic and metaphoric colour concepts developed in Section I in relation to the fine-line kudu motif at Kaoxa's Shelter. The polychrome imagery of the kudu motif allows a closer inspection of potential colour valence. The descriptive language used in the opening quote regarding the kudu from the story, 'The Branding of the Animals' (Biesele 1993: 119), is generally reflected in the visual elaboration of the kudu imagery at Kaoxa's Shelter. Biesele's version of this story was recorded through the study of Ju|' hoan 'folklore' or indigenous knowledge systems based on her work in the Kalahari, which encompassed both Namibia and Botswana. Eastwood and Eastwood (2006: 102) include a composite drawing of the depictive variety available of the kudu imagery from the Limpopo-Shashe confluence area (LSCA) region. Yet, with all the diversification in style, the female kudu is the most common motif and usually consists of a yellow body outlined in white with red ears (Eastwood & Cnoops 1999: 112; Eastwood & Eastwood 2006: 103). This colour combination is also evident in the examples at Kaoxa's Shelter. Based on their research, Eastwood and Eastwood (2006) draw a direct connection between the kudu imagery present in the rock paintings and the San concept of fertility. They point to contemporary documentation of San rites that embody kudu behaviour:

> Certain San rites indicate a deep interest in kudu behaviour. For example, among one group of Nama-speaking San—the Hai||om of northern Namibia—women perform the Kudu Dance. Significantly, too the Khwe of the Okavango have a repertoire of powerful healing animal dances, called |*ana* and one of these is the Kudu Medicine Dance. Some Khwe groups from Angola have adopted the Kudu Medicine Dance also for girls' puberty rites, and among the Hietshware, some of whom occupied the Mapungubwe area in past times, a kudu would be killed as part of the marriage contract. The kudu thus seems to have resonances in the Medicine Dance and be implicated in women's concerns, including puberty rites and marriage. (Fourie 1926: 62 quoted in Eastwood & Eastwood 2006: 102)

The Nama, Hai||om of Namibia and Angolan Khwe groups have been cited as appropriating the Kudu Dance in conjunction with puberty rites; with the Hietshware the kudu is inextricably linked to marital negotiations. The correlation of the kudu and fertility extends further in San thought, as concepts surrounding the attainment of meat transcend the literal meaning to concepts analogous to women or the feminine. Biesele makes a note of this contiguous relationship by emphasising the 'metaphors tying women to the enchanted, hunted prey are so intricate as utterly to defy untangling' (1993: 197; see also Eastwood & Eastwood 2006: 103).

Eastwood and Eastwood (née Cnoops) point to aspects of the painted kudu imagery that are related to women's sexuality and potentially female potency (2006: 103, 136, 164; Eastwood & Cnoops 1999: 117).

These specific attributes include the mating posture, which according to their survey is visible in about a quarter of the imagery in the Mapungubwe region. Some of the imagery makes explicit reference to the transformation of the oestrus with a red fluid emanating from the genitals of kudu to reflect the actual physical change during mating season.

In 1999, Eastwood and Cnoops drew upon numerical studies they carried out through the Paleoart Field Service in the LSCA, specifically the north-western Limpopo Province of South Africa and south-western Zimbabwe, to make inferences about the associative qualities of kudu imagery and femininity. They surmised the following:

> The depictions of kudu in the LSCA illustrate that this animal was, first, linked to supernatural potency and its acquisition by San shamans in order to enter altered states of consciousness. Secondly, the kudu was likely to have been important in the rituals of boys' and girls' puberty and was implicated in the *n!ao* (or its equivalent) set of beliefs, which were linked to hunting and the rain. […] The significant number of paintings of kudu cows (93% of depictions of kudu), the frequent emphasis on their mating behaviour and their juxtaposition with women suggest roles similar to those of eland depictions further south where Solomon (1989:75) has pointed to 'the eland as a symbol of femininity and female sexuality'. (Eastwood & Cnoops 1999: 117)

The work of Eastwood and Cnoops (1999) was supported by other previous ethnographic studies of the area. Lorna Marshall's (1957: 238) association of a short-horned female kudu and a hunter and the interaction of both entities *n!ao*, or 'life force'. This is similar to the |Xam *n|om,* or potency discussed elsewhere in this study. According to Marshall (1957: 235) and Biesele (1993: 87), kudu are considered one of the *n!ao* animals:

> *N!ao* is a complex of ideas relating on the one hand to men, meat animals and the weather and, on the other, to women, their children and the weather. Furthermore *n!ao* links hunting and childbirth to the weather (Marshall 1957: 236; Biesele 1993: 88–89, 109). This concept is very important since the Kalahari San rely on rain for their very survival. *N!ao* is acquired at birth and is divided into two categories: rain/cold and hot/dry. At childbirth, when the fluid from the woman falls on the ground, the *n!ao* of the woman and the child interact, bringing a change in the weather. Similarly, when an animal is killed, the blood spilt upon the ground causes the hunter's and the animal's *n!ao* to interact, thus affecting the weather. (Marshall 1957: 238; Thomas 1959: 161–162)

The recurring artistic prevalence of this animal in the LSCA signals its prominence in San cosmology.

From the considerable presence in the literature and art to contemporary traditions centred on fertility, the kudu has long been an undeniably vital component of San cosmology regionally.

Kaoxa's Shelter, a Pair of Female Kudu

The kudu motif occurs at the northern end of Kaoxa's Shelter. It appears on one of the recessed faces of the outcrop, just before the upper and lower outcrops meet (**Figs. 6.2, 6.3**). The panel consists of a pair of female kudu (**Figs. 6.4, 6.5**) in what Eastwood and Eastwood (2006: 103) describe as a 'procession':[45]

> Although their mating posture matches observable behaviour, the way in which the painted female kudu are grouped together in 'procession' on the rock face is not a literal portrayal. Females come into oestrus at different times, and whether in oestrus or the pre-oestrus condition, they are fractious and aggressive toward each other. Certainly, they do not follow each other placidly as in these paintings from Kaoxa's Shelter. This non-naturalistic type of grouping […] is an example of a metaphor for a specific human condition, an idea consistent with the way in



Fig. 6.2. Kaoxa's Shelter, Machete Game Farm, Limpopo. View into Kaoxa's Shelter from the southern end showing the inner crevasse leading to the northern end where the kudu motif is placed within the rock shelter. Photographed by Dr Deborah Sanders, 2014

[45] It is important to note that the kudu 'procession' might not depict a single event involving two distinct kudu as one might tend to assume. It could represent something more temporally complex, such as two potential states of being for the same kudu, which could be an actual kudu or a 'kudu concept' or ideal, or potentially both. In the analysis here, terms such as 'leading' and 'posterior' are helpful when used to locate the kudu visually on the rock panel.

which the San conceptualise animals (Eastwood & Eastwood 2006: 103).

The pair of kudu females are depicted in a similar style and are still visible despite the uneven image degradation (**Fig. 6.5**). Both images retain the standard colour code (Eastwood & Eastwood 2006: 103; Eastwood & Cnoops 1999: 112), with a fine white-outlined yellow body and distinctly red ears. There are subtle tonal attributes in black, which include the front portion of the hooves and the slight outline of the red ears (**Fig. 6.6**). The red emissions from the underbelly of the front kudu correspond to the oestrus



Fig. 6.3. Kaoxa's Shelter, Machete Game Farm, Limpopo. Panaroma view of Kaoxa's Shelter. Photographed by Dr Deborah Sanders, 2014



Fig. 6.4. Kaoxa's Shelter Machete Game Farm, Limpopo. View into Kaoxa's Shelter from the southern end showing the inner crevasse leading to the northern end where the kudu motif is placed within the rock shelter. Photographed by Dr Deborah Sanders, 2014

colouring of the genitals mentioned by Eastwood and Eastwood (2006: 113). The red emissions may have been present beneath the second kudu because of the general symmetry between the two figures, but it is impossible to determine this because of the exfoliation of the panel in this area. Another difference between the two figures is that the head-down posture of mating does not apply to the kudu with red 'emanations', yet it does occur as a depictive posture of the kudu that follows.

The kudu panel is located in a crenated portion of the rock outcrop (see **Fig.6.4**). The panel appears relatively isolated at the lower lip of a distinctive series of clefts and steps within the rock wall. It is within a series of what appear to be cloistered figures on the outer face of the outcrop. This positioning of the imagery is isolated from the complex and comprehensive superpositioning of imagery in the inner recess



Fig. 6.5. Kaoxa's Shelter, Machete Game Farm, Limpopo showing the fine-line painting of the two kudu sets occur within the rock curvature of the shelter. Photographed by Dr Deborah Sanders, 2014

of the shelter. The kudu pair are painted on a narrow strip-like panel in such a way that they appear to be walking along its lower edge, and the curvature of their backs seems to be shaped by the stepped upper boundary of the panel.



Fig. 6.6. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (detail), slight black detail on ears and hooves. Photographed by Dr Deborah Sanders, 2014

Colour Shift, Recasting the Emergence of 'Light'—Technical Use of Colour

The findings of the paint patch motif and its association with 'light', or more explicitly, 'spiritual light' guide an analysis of the technical use of colour in the kudu motif. The manufacture of paint was also closely considered in relation to the paint patch motif, dealt with in Chapter 2. The function of paint in a composition through the preparation of the pigments and the physical and spiritual transcendence through either fire (or light), or the modulation of colour tone (tint or shade) through paint mixing was examined. The colour zone allocation of paint in layers, or *imprimatura*, might be a deliberately deployed effect of colour application. The role of the rock face is critical to the physicality and dialogical interface of colour through its materiality.

Eastwood and Cnoops (1999) made regular notation of the variance of colour in monochrome and polychrome works as part of their assessment of numerical distribution in the LSCA. Their analysis emphasised the variation in the shade of red either through similarity or differentiation (Eastwood and Cnoops 1999: 110, 116, fig. 8). Black was acknowledged for its semblance, but never for a difference in tonality (Ibid.: 114). Eastwood and Cnoops's attention to the nuanced colour aesthetic of the paintings was critical to accessing meaning, but not pursued as an additional mode of interpretation. In general, the colour red in the visible imagery has been considered analogous to spiritual potency in the conceptual realm, such as, 'the red dorsal lines [which] suggest animals filled with activated supernatural potency'

(Eastwood & Cnoops 1999: 114). The dominant colour in the kudu motif is yellow. The origin of the colour yellow is most likely from yellow ochre or goethite (Bonneau et al. 2012: 287; Prinsloo et al. 2013: 2983, 2988). But, while the pair of kudu is predominately yellow with some white, there is distinct, albeit subtle occurrence of a dark red hue in the ear cavity of both female kudu and the red emanation from the leading kudu (**Fig. 6.5**). These are depicted in closely related but distinct red tones. A darker red is visible on both ears of the posterior kudu, the left ear of the leading kudu, and the smudge emanating from the belly of the leading kudu, which has been interpreted as suggesting oestrus (Eastwood & Eastwood 2006: 103). A slightly lighter red is visible in the right ear of the leading kudu (**Figs. 6.6, 6.7**). This subtle change in colour indicates a distinction between the two animals.

Upon closer inspection, despite their differences, the symmetry across the two figures remains a strong theme complicated by some of the subtle details. This colour variation marks a slight curve in the ear that reflects light and enhances the pictorial designation of the alertness of the animal, as the profile is dually attuned to frontal and peripheral stimuli. This contrasts with the posterior kudu who wistfully lowers its head in the passive manner Eastwood and Eastwood (Ibid.) describe as evident of oestrus, or the act of signalling to the male her readiness for mating.

The significant loss of paint prevents a full reading of the imagery, which might have included the emanating red designation from the underbelly of the first kudu. These imagery details remain unreconciled and inconclusive. The change in the tonal red from the one ear to the other ear of the leading kudu, although subtle, may be a deliberate colour device designed to draw attention to something dynamic about the kudu figure, perhaps the swivel of an alert ear. This design element might be indicative of antelope behaviour, parallel to the attentive profile pose, and may be an indicator of the acute hearing of a cautious kudu. Furthermore, hunting kudu is a difficult feat due to their cautious nature and ability to camouflage: ‘Indeed, the cryptic colouring of the kudu makes them difficult to discern in the bush, it is usually the flicking of their ears that indicates their presence’ (Eastwood & Cnoops 1999: 109). The paradox here is the kudu’s flick of the ear to gain awareness of potential danger is the same gesture that alerts the hunter/ predator to its presence. Animal behaviour and visual representation in the art have led to the following generalised view of the ears and potential conceptual notions:

> A feature of all polychrome kudu images in the area is the emphasis on the ears, which are frequently portrayed with either white or yellow paint surrounding an oblong patch of red pigment representing the sensitive inner part of the kudu’s ear. The emphasis on certain body parts using red pigment, it has been suggested (Eastwood 1999), demarcates localised sites of supernatural potency. (Eastwood & Cnoops 1999: 110)



Fig. 6.7. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (detail), showing slightly lighter red hue evident on the left ear of the leading kudu (red box), in comparison to the darker red tone of the left ear and underbelly emanations of the leading kudu, and both ears of posterior kudu. Photographed by Dr Deborah Sanders, 2014



Fig. 6.8. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (**insert Fig. 6.7.**) showing slightly lighter red hue evident on right ear of leading kudu, in comparison to darker red tone of the left ear. Photographed by Dr Deborah Sanders, 2014

Despite the subtle change noted in the colour red, the predominant hue designated in the ear cavity and oestrus-related markings is dark red. This may indicate that it has been treated by the 'light' of fire, and therefore contains more iron, contributing to its darker tone. At the very least, the hue has been altered in tonality by adding a shade, potentially black, signalling the use of the triad in colour mixing. It is also possible that antelope blood may have been added, as has been noted in the ethnography and in first-

hand accounts of paint preparation. The antelope blood was thought to be an essential additive imbued with the transformative nature of fire. The two reds seem to be closely related but possibly distinguished through some detail of their making or processing.

The black-white-red triad appears to play a minor colour role in the kudu imagery, but it acts as a unifier for an image primarily rendered in yellow. The technique of *imprimatura*, meaning the layering of paint colours at subsequent levels to produce the visual effect of depth and the reflection of light, is observable in the kudu motif at Kaoxa's Shelter.

The intricately rendered pair of female kudu at Kaoxa's Shelter appear to emerge from the face of the rock shelter. In large part, the paintings resemble the natural colour of the surface of the shelter. Paramount to the delicate execution of this imagery is the application of the *imprimatura* technique. A delicate white outline remains as a marginal border surrounding the kudu figures. The white outline may have been composed to offset the muted yellow-orange of the depicted kudu and the surrounding face of the rock substratum or base of the imagery, as seen in other polychrome kudu examples (Eastwood & Cnoops 1999: 112). There may have been an initial layer of white that was laid beneath the yellow. Perhaps there was a 'blocking in' of white pigment upon which subsequent layers of pure yellow, with the inclusion of a shade, either black or red, were added to achieve the precise level of depth and tonal modelling that appears today. The use of white underpainting can be readily seen through breaks in the paint, most noticeably at the hindquarters and neck-torso region through to the front legs of the leading kudu (**Fig. 6.9**). On the posterior kudu which has suffered significant paint loss, an under-layer of white paint seems to remain behind (**Fig. 6.9**).

An additional aspect of *imprimatura* that is visible is the retention of the white under-layer on the neck-torso and outer edges of the underbelly. This is in direct contrast to the black under-layer that has been added to the spinal region and rear near the tail of both kudu. The black accent on the hooves appears to be a contrasting detail that is added on top of the *imprimatura* coat. The value difference in the colour layering that reveals more of the white under-layer creates a purposeful value shift at the intersection of the neck and front two legs of the leading figure. The lighter yellow recedes allowing the right front leg to jut forward conveying a sense of depth and three-dimensionality through colour value permutation aided by colour-modelling. The hindquarters of the leading kudu retain black, yellow and white layers (**Fig. 6.9 right image, left circle**) all functioning at different levels on the substratum to produce a complex organisation of tone and value in the reflection of light. Due to the deteriorated pigment layers of the posterior kudu in comparison to the leading kudu, it is difficult to determine which colours form part of the painted imagery and which are naturally occurring. However, despite the level of complexity around pigment layers, some effects of which could be due to weathering and/or ageing rather than the original intent of the artist, these details suggest that colours have been applied in more subtle ways than studies



Fig. 6.9. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (detail). Left. Break in paint layer showing the under-layer of white used in the *imprimatura* technique. Right. Residual white paint flecks indicating the initial layer of white paint in the *imprimatura* colour layering application of paint. Photographed by the Frobenius Working Group, University of the Witwatersrand, Society of Africanist Archaeologist (SAfA) Conference poster presentation (Hayden 2016), Toulouse, France.

have suggested up to now. For example, while red paint might decay into the appearance of different reds, the means of application can still be explored.

A level of incorporation of features of the rock surface is also evident in the kudu imagery. The complex series of concave precipices among which the kudu occur include hollow incised platforms and spherical rock walls. These are a prominent feature of the shelter and play a role in the designation and arrangement of imagery within the wider space. The distinct intermingling of sharp-edged steps in the rock against curvilinear crags is the result of many millennia of geological formation in the LSCA.

There are signs of potential interaction with the kudu imagery. The leading kudu of the pair show signs that the image may have been manipulated. While the body of the leading kudu remains an intact visual representation, the red pigment that emanates from the underbelly shows signs of physical smudging or smoothing. This could have been executed by the artist(s) of the work, its viewers, or perhaps even viewers far removed from the actual painting episode. If intentional scratching or smudging of the imagery occurred, it would have had to take place once the paint was dry, suggesting some time lapse, although a definitive duration cannot be assessed.

In the imagery (**Fig. 6.10**), the red emanation suggestive of oestrus is rendered in an elliptical fashion and exhibits signs of paint manipulation. The upper quarter of this red emanation closest to the underbelly retains a high degree of pigment, and the middle portion of the elliptical configuration shows signs of erosion. There is also a small portion of the painted emanation at the bottom, furthest from the underbelly of the kudu, that retains pigment saturation at the same level as the upper quarter portion.

This possibly deliberate removal of pigment could reasonably be related to similar aspects of interactive

painting relationships such as intentional rubbing and smearing of pigment, which are evident in the Cederberg paint patch motif (Yates & Manhire 1991). Potential signs of rubbing and/or smearing in the kudu motif may be associated with communal exchange with the imagery, which has been closely aligned with ritual practice (Yates & Manhire 1991: 3). While this collective reciprocity has been documented in the south-western Cape and other parts of the region, it has not been recorded in the northern region of the Limpopo province to date. The example of the kudu panel points to the possibility of this interactive function occurring in the LSCA (**Fig. 6.11**).[46]

Crocking is a term used by painting conservators to describe the dissipation of colour due to an abrasive action such as rubbing. Something similar to crocking is discernible in the red emanation (**Figs. 6.10, 6.11**). There is also residual red pigment to the immediate upper-right of the emanation. This surplus pigment occurs intermittently and does not appear to have been placed there deliberately. Perhaps, it is an accidental byproduct of the application of paint elsewhere on the rock. It may be the after-effect of the sweeping motion of some instrument used in the deliberate engagement with the emanation; a small vestige of the resulting uneven distribution of paint (**Fig. 6.9**). The portion of the emanation that has sustained the most significant paint loss also features a smoother texture when compared to the rough texture that remains on the upper and lower portions of highly saturated pigmented areas.

A subtle undertone of the tan rock face and the dark red pigment ground together through friction appear as a pink texture. Weathering and other natural occurrences on the rock face may be significant contributors to what remains of the imagery. Forensic techniques of analysis and infrared imaging[47] could be applied to this site for further investigation of the visible evidence.

There is also evidence of intentional use of other kinds of natural occurrences in the rock face, such as quartzite. As well, there is evidence of a calcite run in conjunction with the depictive figuration of the imagery comparable to that of the 'bleeding threads' motif discussed in Chapter 3. It is difficult to distinguish whether the figurative imagery was meant to relate to the calcite run, or whether the calcite run formed at a later stage. The calcite run appears on top of the leading kudu (**Fig. 6.10**) where it seems to overlay the yellow paint, suggesting it formed at a later time. This calcite run should not be confused with the white *imprimatura* under-painting visible elsewhere on the kudu motif. While some may argue

[46] The subtlety of detail is difficult to show in a photograph because of the interference of the grain of the rock and the photography. It is, therefore, best observed *in situ*.
[47] Infrared photography is an imaging technique with wavelengths beyond the visual spectrum which has been utilised to a small degree for experimental field recordings in an early phase of my doctoral work. It is a method used by conservators for pigment analysis and to track damage or ageing of paint layers. Museum professionals and art historians use it to deduce the creative process of the artist through studying levels of underpainting. The infrared photography of the kudu motif revealed a faint white scallop detail of an indeterminate figure similar to the shield motif as described by Eastwood et al. (1998) and a potential hind leg of another indeterminate figure, however more investigation is required.

that the visible white components we observe today are all the result of the naturally occurring calcite, the technical precision used to outline the kudu is not likely to be a matter of chance. This interchange between natural mineral deposits in the rock face and imagery appear to be elements of design that, more than likely, carry synchronic meaning.



Fig. 6.10. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (detail). Red emanation from leading kudu appears to have been deliberately rubbed or smoothed where desecration of the paint is evident in lower three-quarters of the elliptical presentment and occurs as a unilateral abrasion due to crocking. Photograph courtesy of the Frobenius Working Group, University of the Witwatersrand, Society of Africanist Archaeologist Conference poster presentation (Hayden 2016), Toulouse, France.

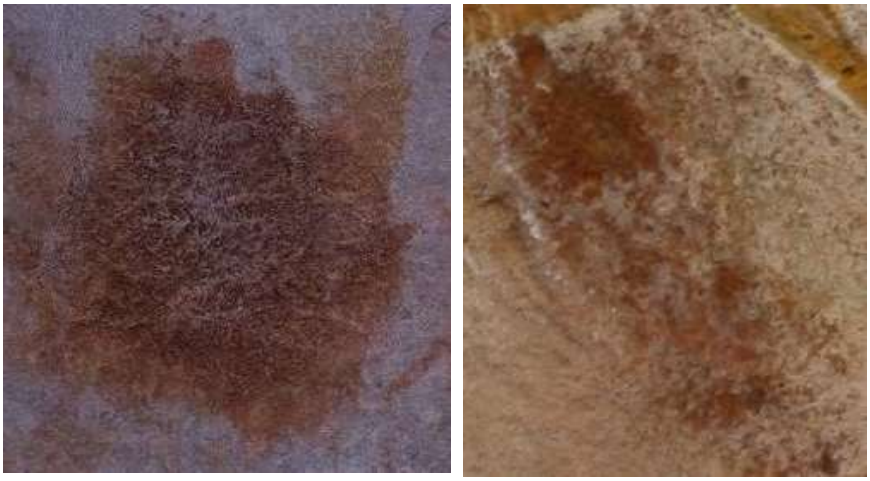


Fig. 6.11. Left. Smoothed 'power point' motif (detail) from the Sevilla trail, Cederberg. Right. Kaoxa's Shelter, Machete Game Farm, Limpopo. Kudu motif (detail). Red emanation from leading kudu appearing to have been deliberately rubbed or smoothed. Photographed by author, 2014

The Relationship Between Motif and Pattern, Colour Aesthetic

Scholars have made specific reference to the conventional kudu imagery that is depicted in northern South Africa and southern Zimbabwe. Eastwood and Eastwood (2006) along with Mguni (2015) have explicitly emphasised the standardised formal attributes of kudu imagery that link directly to symbolic meaning. While these scholars deal with both male and female kudu, this study focuses on the female kudu. The pictorial attributes most significant in conveying analogical percepts include the red inner cavity of the ear and genital region, both mentioned in the technical section of this chapter, and the mating posture of lowered heads and raised tails (Eastwood & Eastwood 2006: 103; Mguni 2015: 75–76). Mguni contends that the 'artist […] exaggerated […] and painted over areas that exceeded the confines of the ears and the vulvas in order to convey specific ritual symbolism' (2015: 75). The female kudu imagery has been closely related to girls' rites of passage and carries embedded meaning associated with the transition from girlhood to young womanhood. While the connotation to female fertility is uncontested with ethnographic and pictorial detail alluding to this association, subtleties of colour deployment within the motif can add further insight to the meaning of patterned variations.



Fig. 6.12. Composite drawing of different representations of kudu after Eastwood and Eastwood 2006: 102

Based on comprehensive surveys of the LSCA or boundaries between Botswana, Zimbabwe and South Africa, Eastwood observed that monochrome kudu are typically depicted in 'red pigment and are identifiable by their large, squarish ears, shoulder humps, robust muzzles and long necks' (Eastwood & Blundell 1999: 20; Eastwood & Cnoops 1999: 108) (**Fig**. **6.12**). Eastwood and Blundell (1999: 20–21) mention variants that include the detailed use of colour modelling in bichrome and polychrome with execution distinctively larger than the monochrome motif:

> In the most recent analysis of 119 sites in the study area, antelope made up 53% (n=475) of all animal depictions (n=-896). In the antelope category, indeterminate antelope made up 70% (n=333). Kudu comprise 52% of the species-specific antelope (n=142), which include bushbuck, eland, gemsbok, impala, reedbuck/waterbuck, sable/roan antelope,

> tsessebe/hartebeest, and wildebeest. In addition to the red monochrome rock paintings of kudu there are many larger, finely-detailed bichrome and polychrome depictions. Large, detailed polychrome paintings are rare for other animal species with the exception of giraffe. (Eastwood & Cnoops 1999: 108)

An additional point of reference to the kudu is that in some instances it is rendered as sexually ambivalent. The coalescing of female and male characteristics according to Eastwood and Blundell (1999: 21) may be indicative of liminality, which has been considered a feature of San rock art more generally (e.g. Lewis-Williams 1981; Solomon 1992; Eastwood & Cnoops 1999). Eastwood and Cnoops (1999: 117) go on to emphasise that:

> […] like the eland, the kudu may, at times, display aspects of sexual anomaly, an ambivalence that makes the kudu an appropriate symbol of liminality. Like the eland, the kudu may function as the negotiator between the sexes, and as the mediator between this world and the spirit world, which the shaman can penetrate using the potency of the kudu. (Eastwood & Cnoops 1999: 117)

It has been extensively discussed that certain facets of imagery contribute individually to the presence or level of *n|om*—the spiritual power that an object, figural or animal grouping possesses in the San artistic tradition. '[E]mphasising or downplaying elements of the subject matter was related to their particular significance in San thought and world view' (Mguni 2015: 77). The spiritual potency of the shaman that physically boils up through his spine has been visually associated with the red-marked manes of various animals such as the bull kudu and giraffe in the northern region and the eland in south-eastern South Africa (Garlake 1995; Mguni 2015). Perhaps this practice of exaggeration of certain visual aspects of imagery through colour extends to the difference between monochrome and polychrome works. Perhaps there is more nuance to the general acceptance that there is a correlation between visual and conceptual complexity. These instances of nuance can be explored aesthetically within the motif/pattern relationship.

The monochrome kudu is most frequently depicted in red with large attenuated ears, but also presents variations to this pattern. The motif protocol uses a specific colour, usually red (but, sometimes yellow, see **Fig. 6.13**) as a unifier in the rendering of this antelope, and the result is usually a flat image that lacks dimensionality. It does, however, often include a level of modulation of form through the use of multiple colours of paint as well as naturally occurring crags in the rock face. This accentuation is typically absent in the monochrome works that are modelled in thick paint that supersedes the underlying timbre of the rock face stratum (**Figs. 6.13, 6.14**). In summation, the kudu motif is often painted in such a way that it appears as if it can almost be peeled off the rock and placed anywhere without fundamentally altering its

appearance as a discrete image, whereas the complex, articulated iterations of kudu tend to be embedded in the rock, and so are more site-specific and idiosyncratic.



Fig. 6.13. Pair of yellow kudu, Northern Province (Limpopo). [Site Id: RSA BOE25] RARI EEC RSA BOE25 1. Photography by Edward Eastwood



Figure 6.14. Mapungubwe region, Kudu motif. Photographed by author, 2016

The pair of kudu analysed in this chapter constitute examples of the polychrome variants. The black-white-red triad appears to be carefully deployed to create a voluminous representation of the animal. The white outline and underpainting creates a silhouette and delicacy of form, capturing something of the essential contours of the kudu. This expression of the motif appears to signal a shift in the presentation of these figures, which are dynamic and individualised from quintessential to exceptional. The move from single hue to complex colouring is a pictorial and visual indicator of elaboration. The entanglement of visual and conceptual complexity, as mentioned earlier, is not a new concept, but the presence of colour exists as a significant dimension of meaning. Singular changes in colour in imagery have been associated with *n*|*om* or spiritual potency (Garlake 1995; Mguni 2015). How then can the colour aesthetic of the entire image[48] inform pictorial correlation with supernatural potency or *n*|*om*? Conceivably, the integration of metaphoric cues from the ethnography will provide further insight. For example, Eastwood and Cnoops (1999: 108) assert that,

> […] [t]here is a focus on certain antelope and animals such as elephant and giraffe that are often painted in more than one colour (cf. Garlake 1987; Pager & Breunig 1993). Many of these images are in non-real contexts that suggest that one of the underlying principles of this regional art was shamanistic (Eastwood 1999). By examining classes of image, patterns of association, and their ranges of variation and associations we can use the imagery as a primary source (cf. Garlake 1995) and then, cautiously and recursively, use the ethnography to temper our interpretations (cf. Wylie 1985) and to illuminate and interpret certain image classes.

[48] While there is no frame to use as a boundary for the artistry of rock art within the context of the rock face, with images that tend to be added to or modified by human or other agents over time, we can attempt to approach the aesthetics of imagery still available more holistically.

Implications of Meaning, Colour Metaphor

kuammanan's house is the rainbow […] kaggen's house is above that

||kabbo (Jantje) (II), 20 September 1872;



Fig. 6.15. Watercolour reproduction, George Stow 129. Klein Aasvogelkop south of Caledon River, west of Rouxville village, Iziko (no number assigned), 681 mm x 514 mm. Animal of mixed description; markings. 'Cave under the great precipice of Klein Aasvogel Kop O.F.S'. Courtesy of Iziko South African Museum

BC_151_A2_1_028 (verso)

The painting by George Stow that opens this section and the quote referencing the 'rainbow' are key visual and ethnographic pathways that are explored in order to access potential colour metaphors. The aesthetic colour analysis of the kudu motif reveals that the colour palette of red (as monochrome or a primary tone of bichrome) can shift in the variant to primarily yellow in a polychrome image. The most significant analogical reference to the colour yellow in the |Xam literature is a direct quote concerning the Mantis (or |Kaggen) and his position in the rainbow, as discussed thoroughly in Chapter 4:

> The rainbow. It is yellow, (on) its place which lies above; a thing which looks red, it lies underneath; while the Mantis is the one who is also yellow; he is the one who lies above; while kuamman-a lies underneath, while the Mantis [the Mantis] lies above, while kuamman-a is the one who lies underneath; while the Mantis is the one whose part which is uppermost, it is yellow; while his part which lies underneath it is that which is red; while his part which lies above, it is the one which is yellow […] the people say, the rainbow stands yonder, and the rain will break. (|Hanǂkass'o, March 1878 quoted in Bleek & Lloyd 1879: 6600–6601, 6603–6604)

The opening quote of this section is a note in the archive folio made by Bleek and Lloyd (1872: 1974v) about ||Kabbo's further specification of |Kuamman-a's 'house' as the 'rainbow', which lies above |Kaggen. There is an emphasis on the placement of colours. The colours of the 'rainbow' that can be viewed through the meteorological occurrence of a light beam refracted through rain evolves as red, orange, yellow, green, blue, indigo and violet, yet this appears at odds with the annotated concept of 'rainbow' described by |Hanǂkass'o as yellow and red. To further complicate our preconceived notion of the rainbow, the designation in this passage of yellow as being located 'above' red, if we take this literally, challenges our visual perception of the rainbow as a fluid progression inwards from red to orange, and then to yellow. While even if the range from red to orange were subtle enough to diffuse directly to yellow, it would still undoubtedly retain the position of red as the outermost layer, and not yellow, as expressed in San literature. These non-naturalistic aspects of colour illustrate Wierzbicka's (2008) idea about colour percepts being more universal than colour concepts as the rainbow is highly conceptualised in any given context, it can also be highly variable in descriptions or depictions.

The description of yellow above and red below, assuming this refers to something viewed in a line of sight parallel to the earth's surface, could be linked to another, more common, coloured feature of the sky which is the gradient visible at sunset as well as sunrise. The influence of the conceptualisation of a rainbow by other physical processes visible in the sky is suggested. The colours of sunrise are primarily the bichrome yellow and red, as described in the above quote and potentially representative of the 'rainbow'. The progression of darker hues can feasibly be described as the marginal indigo of the heavens, or sky. To be more precise, the colour yellow is uppermost to the succession of red, and both are undergirded by an abyss of inky blue heavens above (**Fig. 6.16**). Other natural phenomena that could be related to the |Xam conceptualisation of the rainbow are a solar halo and lunar halo, in which the light of the sun or moon is refracted or bent through ice crystals. The cirrus clouds that accompany these atmospheric phenomena often indicate an oncoming pressure system and are an indicator of approaching precipitation (MacCannell 2018). This natural weather anomaly produces an inverted



Fig. 6.16. Sunset, Mapungubwe, Limpopo basin, South Africa. Photographed by author, 2014

rainbow, or circumzenithal arc (**Fig. 6.17**), that is more aligned with the |Xam description of the rainbow consisting of only two colours with the yellow layer on top of the red. Furthermore, while a traditional rainbow requires both light and moisture to occur during or after a rainstorm, solar and lunar haloes indicate an approaching rainstorm. This solar and lunar pattern or celestial information, referenced through colour prominence, may be linked conceptually to the anticipation of rain (cf. Del Chamberlain 1996; Sassen 1994).

An association in the oral narrative linking |Kaggen (the Mantis) and |Kuamman-a with the rainbow and by extension the concept of rain, invites us to revisit current interpretations. For example, Wessels shows the instability of the term hartebeest, which in |Xam literature is inextricably linked to |Kaggen (Wessels 2010: 139). It moves beyond one-to-one signification to direct or metaphorical associations (Ibid.). Likewise, the ethnography is not used to establish a stable colour code, but rather to investigate principles related to colours as they occur in context. Thus, this study is interested in a colour system, rather than individual colour attributes. The black-white-red triad is one concept that operates to make 'visible' the colour analogies.

While there are specific animals deemed 'rain animals' that are explicitly related to rain/water security, such as the eland, giraffe and tsessebe among others (Dowson 1988, 1994, 1998), the kudu has most



Fig. 6.17. Solar halo distinctly showing an inverted rainbow, or circumzenithal arc with only two colours of the rainbow visible with the yellow above the red as described in |Xam literature, Photographed by author, Cape Town, South Africa, 2019.

frequently been associated with femininity and the female realm. In the case of the kudu motif at Kaoxa's Shelter, the feminine power of sexual maturity is suggested in the reddened underbelly interpreted as red oestrus—a visually poignant attribute. The colour variant (yellow) in the aesthetic motif/pattern is a subtle but critical indicator of an association of the kudu with rain. The kudu is not directly emphasised as a rain animal in the ethnography yet pictorial attributes of the painted imagery including colour are suggestive of the polysemic stature of correlative terms.

The aesthetic deployment of colour and correlative literary references, in this assessment, point to the kudu as a 'rain animal' in its liminal state. The ethnography suggests a direct relationship between !*Khwa*, the rain deity of 'god', and the seclusion regulations of girl initiates (Wessels 2010: 248). This is apparent in |Xam literature through many warnings linking the tenuous time of menarche and the seduction of the rain (L.V.13: 4989; Hewitt 1986: 282; Wessels 2010: 248). For example, narrative commentary and injunctions such as 'menstruating girls invested with the roan's magic power' (L.V.13: 4989), and 'keep away or provoke the rain's wrath' (Wessels 2010: 251), show definitive links between the destructive force of water/rain and female potency during menses. This corresponds directly to the kudu motif under discussion, despite the kudu not being considered a 'rain animal'.

The analysis of the shift between differently coloured versions of the motif can be related to the colour references in the Bleek and Lloyd archive. In the archive, an explicit reference to red and yellow is analogous to the minimal colours that make up the rainbow, and the relationship between |Kaggen and |Kuamman-a. In colour theory based on scientific studies of optics, red and yellow represent a dyadic scheme in that they are separated by only one colour on the colour wheel—in this case, orange. This bilateral colour affiliation suggests duality. The colours lie only one hue apart. Furthermore, according to one account, the rainbow accompanies the 'she rain' (Bleek 1933; Woodhouse 1989: 19), the counterpart to !*Khwa*, or 'he rain'. The 'she rain', which brings the highly anticipated soft rain that was particularly desirable to the San, is in direct contrast to !*Khwa*, the 'he rain'. They are primal binaries that are inextricably connected.

Reverting to the dual nature of the ‘she rain’ (accompanied by rainbows) and the ‘he rain’ (!*Khwa*), both seem to be implicit in the kudu imagery, through the aesthetic motif/pattern amity. The predominately yellow palette of kudu at Kaoxa’s Shelter is a variant of the kudu motif usually designated in red. This change in aesthetic scope signals a potential shift in meaning, as the prevailing interpretation of this motif points to fertility. There are many other critical representations of girls’ initiation rites at Kaoxa’s Shelter that provide contextual structure to the aforementioned association with fertility and potency, but the additional element of ‘status change’ mentioned by Eastwood and Eastwood (2006: 164) is critical:

> Alignment of female kudu in procession signifies ‘animals behaving like people’, and that such a convention may allude specifically to the ‘women as meat’ metaphor. Such symbolism is given additional impetus when combined with the portrayal of a woman’s apron that implies notions of supernatural power, female sexuality and status-change in girls’ puberty rites (Eastwood & Eastwood 2006: 164).

What can we glean then from this dyadic colour choice for kudu representations as a potential variation in meaning concerning fertility and its implications as a duality? A significant point may be in the interstasis, ‘actualisation’ or liminal state between the polarity of the dyadic colour shift from red to yellow. The conceptual distinction of ‘she rain’ (rainbows) and the ‘he rain’ (!Khwa) is integral. A |Xam signifier, according to Wessels (2010: 109), moves beyond a universal driver of meaning to an intertextual relationship apparent in San literature.

It is widely documented that a menarcheal girl possesses a liminal status, which is tenuous due to the potency of her condition: ‘menstruating girls are imbedded with rain’s magic power’ (Bleek & Lloyd L.V.-13: 4989). There are key colour attributes within the imagery, which substantiates this liminal status and the female in direct association with binaries of creator/destruction, hunter/prey:

> A menarcheal girl possesses a unique status. She exists in a liminal zone. […] She is neither adult nor child. She is in danger from !*Khwa*, but also derives a power from him that endangers others. Generally, women are identified with antelope as prey or meat. The menarcheal girl, on the brink of sexual availability, attains in her liminal state the status of hunter, and the men endure the peril that attends their inverted position as prey. (Wessels 2010: 252)

The colour yellow is also a recurring pictorial attribute of hunting imagery and accoutrements such as

cloaks, karosses and quivers, which are often depicted in this colour.[49] Yellow as a key colouring agent in San hunting imagery directly resonates with the liminal status of the menarcheal girl as 'hunter'. Yellow plays an analogical role through |Kaggen's position in the rainbow and could be associated with his dual nefarious and benevolent nature. The colour analysis of the kudu motif suggests that the status of femininity is in flux. The kudu could be the illustrative presentment of a transient state that exists along the spectrum of femininity and masculinity in the dual potentiality of potency that occurs only during major biological transitions, such as puberty: 'During the liminal phase of a girl's initiation rites there is transference of power from the girl, not only to all members of the band, but especially to hunters' (cf. Lewis-Williams 1981: 51; Eastwood and Cnoops 1999: 115).

In respect to the colour red of the binary red/yellow, |Kuamman-a is important because of his affiliation with the rainbow. A metaphoric relationship can be drawn here. While |Kuamman-a may appear peripheral to the kudu motif by way of a mere colour shift, his synthesis with the rainbow is a vital point of engagement:

> It is the rainbow; the people say |kuammam-a to it (i.e. call it |kuamman-a). Therefore, we who are children, we say |kuamman-a to it; While we fell that [feel that (repeated)] the old people are those who say kuamman-a to it. Therefore we say |kuamman-a to it. (|Han‡kass'o, March 1878 L. VIII.-7. 6602–6603; BC151 A21 082 round and square brackets indicate emphasis in the original text)

In this quote |Kuammana, son-in-law of the prolific San trickster character |Kaggen, is associated with the rainbow. The rainbow is explicitly called by his name, an action that is elicited by elders who set a precedent for children. This is a critical form of San signification, as |Kuamman-a is not only associated with the colour red in the rainbow, he embodies the concept of the rainbow. This reference to red is important because it is in direct contrast, yet analogous to yellow, both in the rainbow and conceptually through the familial relationship of |Kaggen and |Kuammana. Red could also stand in for colour/colourfulness more generally.

The written expression of the colours red and yellow suggests a circuitous nature of the relationship between them, yet in the imagery these colours retain more definitive, alternating roles. |Kaggen's often misappropriated actions are usually counterbalanced by |Kuamman-a's adherence to social order. Dorothea Bleek (1929: 305) referred to the quiet nature of |Kuamman-a as opposed to the uneasy energy of |Kaggen. |Kuamman-a is often witness to the impropriety of Kaggen, but by relational kinship is not allowed to make direct reprisal. This clear emphasis of polarity is expressed artistically through an

[49] Caution should be taken with the accuracy of George Stow's subjective artistic renderings (Stow images 009, 042, 078, 082, 093, 106, 140, 143).

association with placement in the rainbow, with repetitive prose that makes a stark allocation of |Kaggen as occupying the yellow aspect of the rainbow with |Kuamman-a set in the red layer.

The two never switch positions in colour placement just as their personalities are well-defined in comparative sequences, although nuance may exist within the individual, for example, |Kaggen's shifting nature between malfeasance and benevolence. However, |Kuamman-a retains a consistent foundational basis for |Kaggen, both analogically and narratively. Analogically this is portrayed through colour specification in the rainbow, with the red aspect of the rainbow (|Kuamman-a) a base and understructure to the yellow upper layer where |Kaggen resides. Narratively, |Kuamman-a is a silent observer to the antics of |Kaggen, and it is only in direct contrast in action and personality that he disavows |Kaggen's behaviour. This is partly due to his antecedent familial positioning as an in-law and may reflect challenges inherent in marital ties of aggregate San communities.

These associative elements of San literary prose present an opportunity for intertextual and nuanced interpretations of visual elements. It is through this analysis of colour categories in the ethnography that one can make links between the power of rain, that retain destructive (!*Khwa*/'he rain') and providential (rainbow/'she rain') properties. It allows for the exploration of metaphoric colour concepts around the kudu motif. It can be suggested that there is an intersection between fertility and liminality through the 'actualised' transitory state of pubescence.

CHAPTER SEVEN – KAOXA'S SHELTER: LOCUST, LEADING A PATH TO THE STARS

[…] she […] made locusts by throwing into the sky the peel of the !*kúïssï* (an edible root) which she was eating

(|Han≠kassʹo 1873 quoted in L.II.–28: 2517;

Bleek & Lloyd 1911: 76; Eastwood & Eastwood 2006: 92)



Figure 7.1. Kaoxa's Shelter, Machete Game Farm, Limpopo. Locusts. Photographed by the Frobenius Working Group, University of the Witwatersrand, SAfA Conference poster presentation (Hayden 2016), Toulouse, France, 2016



Figure 7.2. Kaoxa's Shelter, Machete Game Farm, Limpopo. Rock Panel showing locusts. Photographed by the Frobenius Working Group, University of the Witwatersrand, SAfA Conference poster (Hayden 2016) Toulouse, France 2016

She […] threw up another scented root called !*huin* which made stars, the red (or old) !*huin* making red stars, the white (or young) !*huin* making white stars
(L.II.-28. 2517; BC_151_A2_1_034: 2517 verso note 2)

Locusts, Stars and Transformation

This chapter will consider technical, aesthetic and metaphoric colour concepts in relation to the fine-line locust motif imagery at Kaoxa's Shelter. The locust motif presents an opportunity to investigate colour valence. The locust images at Kaoxa's Shelter are examples of the only recorded instances of such painted figures within the body of San paintings in the southern African region. The three most clearly noticeable of the possible total of 14 locust motifs at the site are the subject of this chapter. The locusts are regularly interpreted as sacred insects in San cosmology and symbolism. We can attest through ethnographic references that these insects were deeply respected by the San and revered as possessing 'magical powers' (Bleek 1935: 8–11; Eastwood & Eastwood 2006: 92). According to |Xam sources, the

locusts originated through the creative power of a girl of the ‘early race’ during her seclusion as required by her puberty rites (Bleek & Lloyd 1911: 76; Eastwood & Eastwood 2006: 92).

The quotes above are linked by a series of common factors that speak to the creation of locusts and stars and include a girl of the ‘early race’ undergoing menarcheal seclusion, a vegetal root, the agency of transformation and the act of intercession. The seclusion of a girl during her puberty rites is a common theme in the art of the San (Eastwood & Eastwood 2006). It is common to denote this liminal time between girlhood and womanhood as powerful and potent (Eastwood & Eastwood 2006: 144–145). The level of potency embodied within the transitioning female is often aligned with creative and destructive forces (Wessels 2010: 249). The duality of malfeasance and benevolence is highly respected and the restrictive measures of puberty rites are enforced to mitigate the charged energy and power of the transitioning female.

Two types of vegetal root are mentioned in the Bleek and Lloyd archive as a key factor in the creation of locusts and stars, !*kúïssï* and !*huin*. There are few other ethnographic references that couple the act of creation with an edible root. It is an element that is used to manifest the creative transformation that the girl is trying to initiate. During menarcheal rites, girls are fed specific items, while others are forbidden (Wessels 2010: 250). Scholars have researched these forbidden foodstuffs in an attempt to understand their relevance to hunting. Dire consequences would befall the male hunters if the female initiate partook of the forbidden food items, as her liminal and powerful state would impact negatively on the hunt. While information is readily used to correlate the concerns of puberty rites, food restrictions and their resulting effects, we rarely see information regarding the allowable edible items and the powerful impact of creativity that is imbedded within them. Both types of edible roots are crucial to the latent creative force that enables the transformation to locust and stars respectively.

The latent creative force of the edible roots brings to the fore the agency of transformation. It is perhaps the potency of the menarcheal girl that creates the platform for transmutation. It is this in-between state of pubescence that sparks the formation of sacred insects and celestial bodies from the vital energy present in a root. This speaks to a larger conceptual framework that could possibly point to the inherent depth of energetic impulses and synaptic systems that lie dormant in the fauna and flora of a given environment.

The act of intercession is an inter-related component of the two opening quotes. Intercession is a numinous concept of mediation on behalf of another that may not readily be apparent in the act of the girl of the 'early race' through her creation of locusts and stars, but it is vital. The roots, without the intercession of the pubescent girl, would not be transformed. Intercession is commonly associated with the sacred prayers a person says on behalf of another, as a presentation of sorts for an outside entity in pleading causation. This petition for the sake of another subdues the self in favour of another. Moreover, intercession typically involves supplication to a higher sacred realm. In the case of the girl of the 'early race', this intercession relies on the creative force within her arising from her elevated level of potency during menses, and draws upon its power. She becomes a part of the divine force that creates, rather than a mere supplicant on behalf of another. This chapter will explore the possibility of a conceptual connection between the creative force of the menarcheal girl and that of the locust motif, conveyed through the use of colour.

Locusts in San Ethnography

The ethnography enumerates specific kinds of locusts such as the Cape locust and other affiliated descriptions (L.VIII.-7. 6600), including the locusts' birds |*harritan* (L.VIII.-15. 7310v) and ||*kerri* (L.VIII.-31. 8763–8765; L.V.-21. 5708–5719 ½). These references to locusts' birds are replete with warnings about the disappearance of the locust and ||*kerri* prompted by socially prohibited behaviour against them. Stories regarding proper interaction with the locust include warnings not to throw stones at the locusts (L.V.-21. 5708–5719 ½; L.VIII.-31. 8754–8758). The following excerpt highlights the associative companionship and protective nature of the ||*kerri,* or locusts' birds, as they await the completion of the maturation process of the locusts and the overall numinous atmosphere around this event:

> Our mothers told us that the locusts' bird is a thing which does not go away, but keeps with the locusts. When the sorcerers opened the stone with which they had closed up the place where the locusts were, the locusts came out and flew. Then the locust bird also wanted to go out, and it went with the locusts. [I]t did not want to go about before the locusts were out. For the locust bird is like the locusts he also waits for the time when the sorcerers shall roll off the stone under which they have shut up the locusts. That stone is what they wait for till the sorcerers take it off. Then they go about. They are like people whom we have put somewhere where they can't get out unless we talk to them, but have to wait for the time when we tell them (to go). And they are also treated as we treat others, when we are taking care of someone and will not let him walk about. The sorcerers do the same with the stone which they put upon the place where the locusts are. We who are not sorcerers do not go and take it off the locusts. If we were to do so, not being sorcerers, we should die if we went to take it off the stone which stands upon the mouth of the locust's hole. For our mother's used to tell us, the

> stone which stands on the place where the locusts are is like a sorcerer who stays where the locusts are. When the sorcerers go to take out the locusts, they charm them with magical doings. They go and take out the locusts as they have at other times done. Therefore, if our mothers saw us take a stone to throw at the locusts, they spoke severely to us. They said we should remember that locusts only go about because of magic doings. They have magical things. If we threw stones at them, their sorcerers would see us throwing stones at them. We should feel the sorcerers shouting at us, because they were angry at our throwing stones at locusts. They would let magic things kill us, because of their anger. They thought when they had made the locusts go about for us, we ought to eat them nicely, and not to play games with them. We should die if we played with the locusts. (L.V.-21. 5708–5719 ½; BC_151_A2_1_070)

There are references to locusts that convey comparable associations with game, such as locust 'flocks' travelling with sorcerers, locusts and the birds that accompany them described as 'fighting things', and 'locust hunting' (L.VIII.-10. 6858–6877). The reference to locusts as 'game' in the two opening quotes refer to actions that have an impact on 'the hunt'. Both instances of creation are cultivated through the actions of a menarcheal female and the potency of her condition. This potency has great impact on the hunting practices of the men and can deter or enable a 'good hunt' (Biesele 1993: 92–93). The edible root that results in the locusts is an allowable food item and works outside of the game meat, which is forbidden and portends a negative outcome on the hunt. Likewise, the stars light the night sky providing illumination for the hunters to mitigate the challenges of extensive trekking over many days. Interestingly, the tandem action to hunting is gathering or cultivation and such associative references include a rainmaker |*kannu* who 'grew locusts' (L.VIII.-7. 6639v–6646v).

The association between locusts and stars in the narrative may also shed light on the visual use of these motifs and the relevance of colour designation. A closer look at the composition and positioning of the locusts will contribute to accessing discursive and aesthetic duplicity in meaning.

Kaoxa's Shelter, Three Remaining Locusts

The locust motif is centrally located but slightly closer to the southern end of Kaoxa's Shelter on an inward curved facet of the upper outcrop that faces north and east (**Fig. 7.3**). The designated portion of the shelter where this locust imagery resides stands out when viewed from a distance. Its dominance is due to the natural colourings on the rock face such as the white east and north-facing elliptical concave



Fig.7.3. Kaoxa's Shelter, Machete Game Farm, Limpopo. Panorama view showing the location of the locust motif within the rock shelter. Photographed by Dr Deborah Sanders, 2014

face and precise vertical lines in red on the east-facing scarp (**Fig. 7.4**).

The use of the triad in the locust motif is not readily visible. This is largely due to its differential preservation. The diminutive size of this painted imagery requires careful inspection, which reveals an intricate rendering of detail and varying hues that produce balance and contrast. There are three locusts located at the corner of the southern approach to the rock shelter as one enters the delineated path (**Fig. 7.5**). Rendered in a vertical line along the rock face, the locusts are placed one on top of the other and are a small sampling of the total of 13 such depictions at Kaoxa's Shelter (Eastwood et al. 1998). The style of the imagery appears to belong to the earliest fine-line tradition, and they also appear



Fig.7.4. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail (**Fig. 7.3**) where the fine-line painting of three locusts occurs within the rock curvature of the shelter. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2016

monochromatic at first glance because of the primary use of red and scant use of yellow pigment. However, the paintings can be described as bichrome images in yellow and red, and potentially polychrome, as there are subtle hints of white paint.

In the three most visible examples, each locust utilises the colour pairing of red and yellow. In terms of conventional colour theory, red and yellow are two of the three primary colours. Their relational value on the colour wheel is therefore an indication of their singular pigment primacy to mix with other values to

create the various colours we identify with today. Red and yellow convey an indelible relationship, as slight variance of tonal value denotes interchange. As explored above in relation to kudu imagery, these two colours form a dyadic scheme that may suggest duality.

While a total of 13 locusts have been documented at this site, most of these figures are no longer visible. The three locusts under discussion occur, as previously stated, on the part of the panel facing east (**Fig. 7.5**). However, the field guide *The Rock Paintings of Machete*,[50] noted seven small additional locusts on the north-facing aspect of the same panel (**Fig. 7.6**) (Eastwood et al. 1998). The Limpopo-Shashi training project documented three more locusts at the base of the panel under discussion, facing inwards towards the crevasse of the outcrop on which a distinctive large animal with a bifurcated projection emerging from



Fig.7.5. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail showing the fine-line painting of three locusts positioned within the rock curvature of the shelter. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2014

its back is placed (**Fig. 7.9**). Despite close scrutiny of the panel during my own fieldwork, these 10 other locusts could not be located.

[50] The field guide was produced by the Limpopo-Shashi training project, a collaboration between the Palaeo-Art Field Services (Limpopo Province), the University of Venda and the University of Botswana.

In both areas where locusts were recorded previously but are no longer visible, a white calcite crust that covers the surface of the rock may be obscuring the locust imagery. Over the course of this research, infrared photography as a counter-intrusive measure was used to see beneath the surface of the calcite. The findings were reported at a SAfA (Society of Africanist Archaeologists) conference in Toulouse, France, in 2016 (Hayden 2016). While some under-layer imagery was detected, the results were inconclusive, and more testing with this technique is required. This digital technique does reinforce the possibility of colour layering or *imprimatura*. Infrared photography is a useful tool regularly implemented by conservators and curators to ascertain the creative process of the artist by looking at the preliminary layers of design underneath the surface of a painting (Attas et al. 2003). This technology may prove useful in rock art because it presents a non-invasive tool for accessing palimpsest or layered levels of imagery. The use of an art-centred tool such as infrared photography could address the development of the imagery, including art historical domains such as creative process and artist technique, as well as alterations over time. In this way, infrared photography may assist in bridging the gap in establishing stylistic variance and evolution when coupled with other methods. Digital enhancement could also be applied to the blank sections of rock where the locusts may have been located and different techniques could be used in tandem. This avenue of inquiry in future research might help to locate the missing ten locusts.



Fig. 7.6. Kaoxa's Shelter, Machete Game Farm, Limpopo. Panorama view showing the location of the seven missing locusts on the north-facing scarp the rock face. Photographed by Dr Deborah Sanders, 2014

Thus, of a total of 13 locusts previously documented, only three remain clearly visible. The three recorded earlier on the inner face of the same panel are currently undetectable with the naked eye, and seven more examples previously recorded on the northern scarp are also undetectable (**Fig. 7.10**). There is a large black insect-like motif that may be a locust positioned at the beginning of the delineated path at the southern approach to the shelter. While this possibility awaits full examination, it would be a treasured find and extend the documented 13 locusts at the site to a total of 14.

Eastwood (2008: 92) highlights the unique status of the locust motif in southern African rock art. The colour significance of the locust motif has not been considered in the interpretation (Ibid.), despite a direct correlation recorded in the Bleek and Lloyd archive between colour and stages of development for the locust (Bleek & Lloyd 1879: 8752–8753). The inclusion of colour in the interpretive approach and its correlation with the development of an insect considered to possess supernatural powers can provide insight into known metaphoric associations of San animals with lifestyle, and suggests a colour designation linked to stages of maturity and transformation.

While this imagery is unique to this site, it is one of the few images where we can suggest a connection with an ethnographic reference to colour. Relevant to this discussion is a |Xam story of a girl from the 'early race', who was undergoing puberty rites and who created the locusts:

> […] [She] threw up a scented root […] called !*huin* which became stars; the red […] !*huin* making red stars, the white (or young) !*huin* making white stars [. . .] she also made locusts by throwing into the sky the peel of the !*kúïssï* (an edible root) which she was eating. (Bleek & Lloyd 1911: 76; Eastwood & Eastwood 2008: 92)

This excerpt contains an analogy between the creation of the stars, which involves two colours of the triad (white and red), and the creation of the locust. The emphasis in the ethnography on the 'darkness' of night (Bleek & Lloyd 1979: 2513) may suggest the colour black, and thus complete the black-white-red triad in the star-sky configuration. According to Bleek and Lloyd's |Xam interlocutors, stars in Orion's Belt are named in correlation with springbok hunting and are key indicators that the game animals of the earth imitate the movement of the stars (Riley 2007: 306).



Fig. 7.7. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail. Locust. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2014



Fig.7.8. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail. Locusts. Photographed by Dr Deborah Sanders, 2014

Locusts were respected by the |Xam and were seen to possess supernatural powers (Bleek & Lloyd 1935: 8–11; Eastwood & Eastwood 2008: 92). Several excerpts from the Bleek and Lloyd notebooks suggest analogous indicators of potency for the dual creation of the stars and locusts, together with the rare but undeniable indication of colour. What role does colour play in these texts? What role does it play in the painting? Can one establish a meaningful connection between the two? I will deepen my analysis guided by these questions. The challenges of using ethnography from a different region and mediated through text and translation are apparent for interpretations positing a 'pan-San' context. This examination delves into the use of story patterning and other metaphoric devices. The relationship between text and painting will probe the relevance of ethnography and the notion of a 'pan-San' world-view. This approach employs ethnography cautiously. It is guided by the idea that meaning can be gleaned from the archival material, and particularly when combined with other sources.

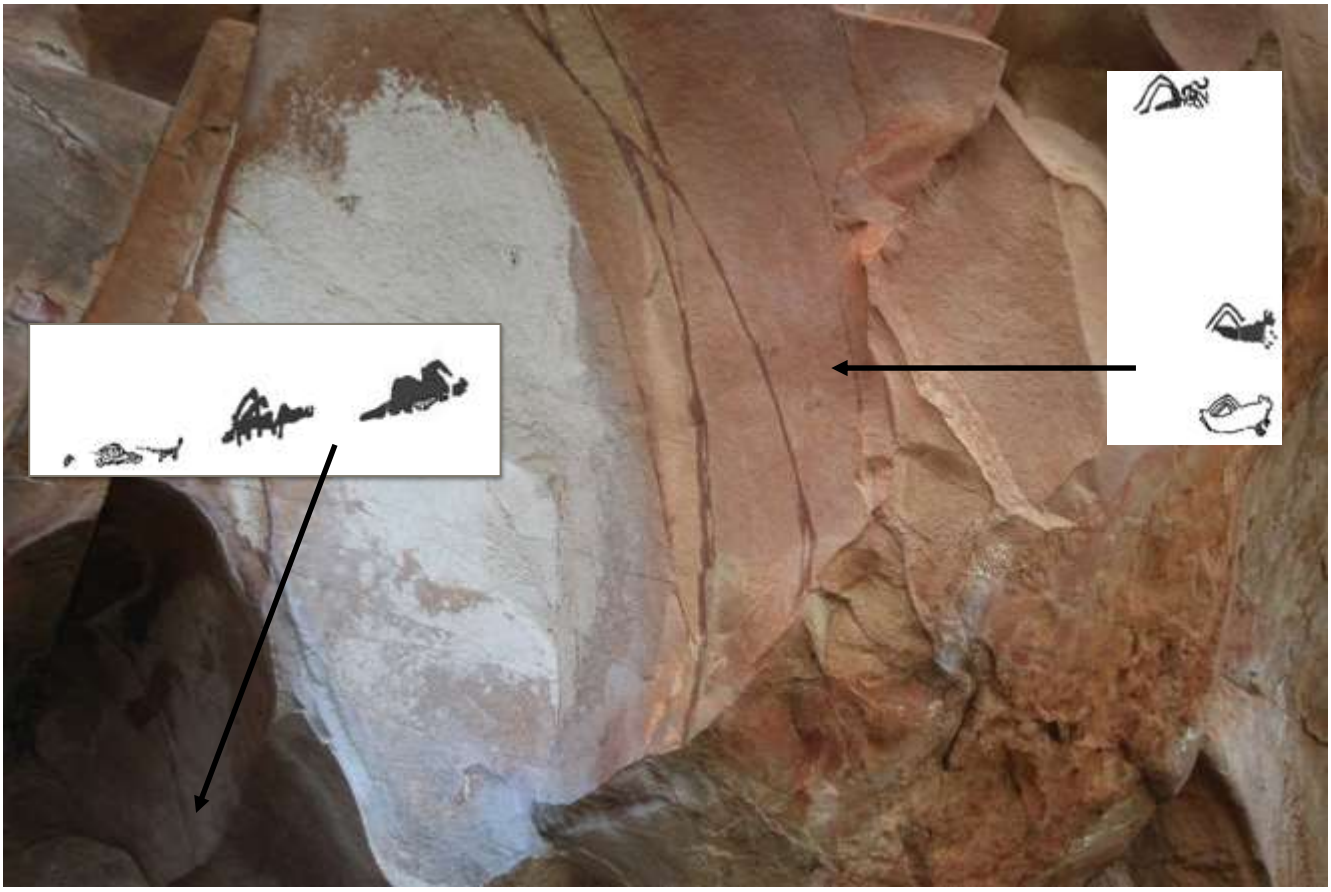


Fig.7.9. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail showing the fine-line paintings of the three locusts under review. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2016

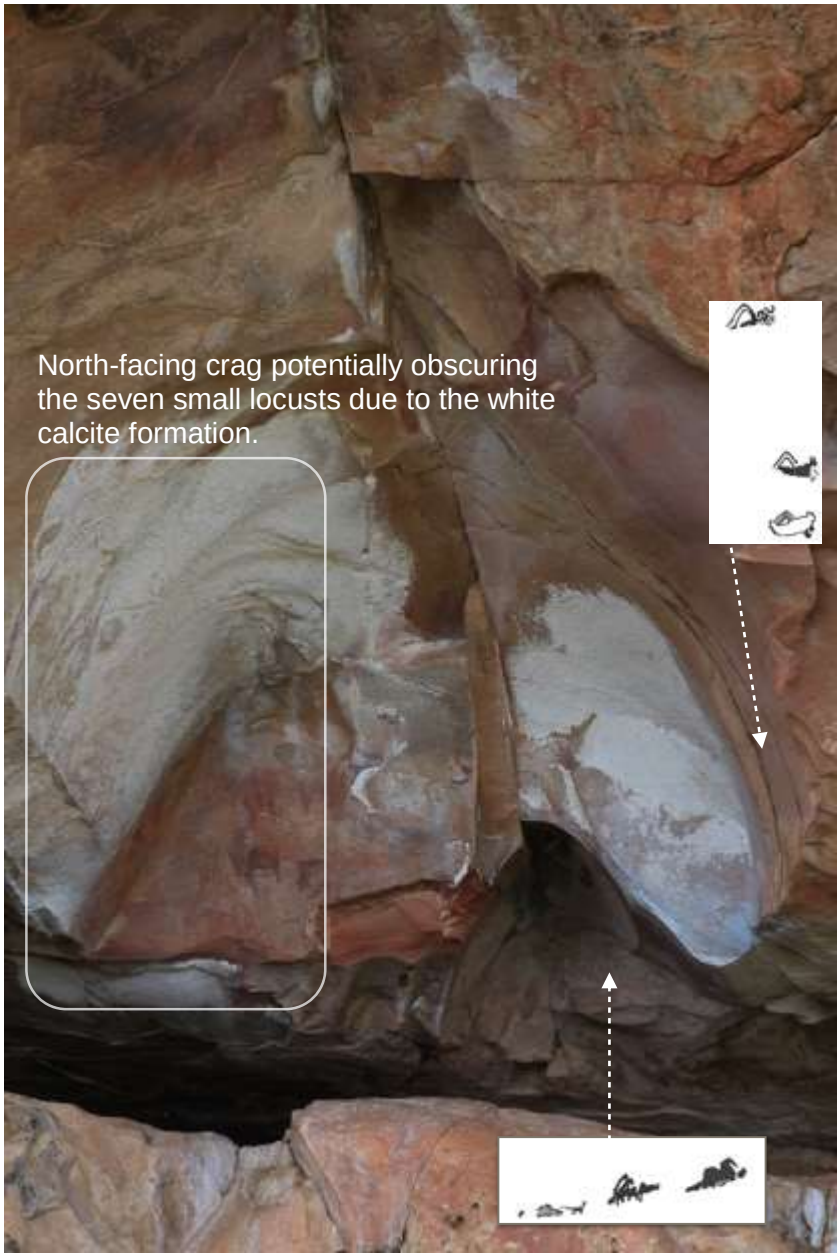


Fig.7.10. Kaoxa's Shelter, Machete Game Farm, Limpopo. Inset detail showing the location of visible and missing locusts documented by the Palaeo-Art Field Services. Top right. Fine-line painting of the three visible locusts. Bottom right. Three missing locusts potentially under the white calcite previously recorded and sketched. Top left. Missing seven small locusts possibly obscured by calcite run. Photographed by the Frobenius Working Group, University of the Witwatersrand, 2016

Colour Shift, Recasting the Emergence of 'Light'—Technical Use of Colour

How did the production of the varying tonal values of red pigment affect the production of yellow pigment? And were there associative measures between the manufacturing of various media? Perhaps the production of red in its various configurations was associated with the production of yellow through complementary mixing? In essence, the question remains around the relationship between the collection of ingredients and manufacture paint in the red and yellow registers, respectively. While processes of colour mixing are speculative (and require forensic studies) in view of the limited evidence available, it is likely that red and yellow were produced in association with each other, based on what we know from colour theory where red and yellow are regarded as complementary hues used for medium nuance and range. These two colours are useful in the creation of imagery because of their contrast. Although not quite 'complementary' colours indicative of the conventional 'red/yellow/blue' colour model in modern colour theory, they are sufficiently contrasting as to validate and challenge each other, a relationship that is termed dyadic (as discussed in Chapter 6). In the context of colour use, red and yellow can create compositional harmony as they are close in tonal value.

The technical application of paint for the locust motif analysis thus relies on the three locusts presently visible at the site and textual evidence drawn from the 1998 site field report (Eastwood et al. 1998). The three locusts still visible include two rendered in red and one in yellow. The yellow locust contrasts with those designated in red, and the field guide makes special note of this yellow locust (Eastwood et al. 1998: Panel 7) which might denote its uniqueness. All three are painted one on top of the other with the uppermost locust close to a natural red vein in the rock face. The upper two locusts are rendered predominantly in a dark to medium red with the bottom locust painted in what appears to be a pure yellow.

There is the use of complementary colouring in all three locusts. Upon closer inspection of the two red locusts, it is possible to discern the use of yellow in minimal yet precise allocation. The upper locust, near the natural red vein on the rock face, has a distinct yellow emphasis on the rear of the abdomen (**Fig. 7.11**). The entomological term *ovipositor* for this region of the body in insect physiology refers to a tubular organ in females through which eggs travel to be deposited, underground in the case of the locust (Choe 2019: 6, 7, 118). In conjunction with this biological functioning part of the locust, there are relative and corresponding references in the San ethnography surrounding this depositing and incubation period. Significantly, the stone that covers the hole of the deposited eggs of the female locust is seen as auspicious and under the domain of the 'sorcerer' or shaman in |Xam ethnography (L.V.-21. 5708–5719 ½). This is suggested in the passage excerpted from Dia!kwain (quoted above and selectively re-quoted here):

> When the sorcerers opened the stone with which they had closed up the place where the locusts were, the locusts came out and flew […] the sorcerers shall roll off the stone under which they have shut up the locusts. […] when we are taking care of someone and will not let him walk about. The sorcerers do the same with the stone which they put upon the place where the locusts are. We who are not sorcerers do not go and take it off the locusts. If we were to do so, not being sorcerers, we should die if we went to take it off the stone which stands upon the mouth of the locust's hole. For our mothers used to tell us, the stone which stands on the place where the locusts are is like a sorceror who stays where the locusts are. When the sorcerers go to take out the locusts, they charm them with magical doings. […] We should die if we played with the locusts. (L.V.-21. 5708–5719 ½; BC_151_A2_1_070)

This technique is repeated on all three locusts, yet in the case of the predominately yellow locust, the colour emphasis on the abdomen, or potentially the ovipositor, is rendered in the complementary colour red (**Fig. 7.11**). The upper locust in the vertical three also appears to have pronounced antennae or another unidentifiable protrusion from the head or thorax region of the body. The spiracles on the underbelly of the abdomen are explicitly rendered, a detail that is omitted from the other two examples. The final analysis of the technical application of colour involves a consideration of the triad through both design and symbolism. Accent colours that complement the primary colour of the imagery are strategically placed.

The locust motifs at this site show no signs of intentional rubbing or scoring of the pigmented surface of the imagery, based on what can be learnt from the three visible pictorial examples that remain. Additionally, the surface on which they are painted is fairly smooth save for the finely pitted irregularity common to a rocky escarpment, except for the shallow hollows or steps found near the imagery. In terms of their placement in relation to natural colour features of the rock, there is one locust depiction that is near a fine natural red vein on the rock wall. The lower extremities of the hind legs of the locust have been placed on the exterior of the natural red colouring (**Fig. 7.13**). These red natural veins crisscross over the open face of a large faceted crag that is accentuated by a thick white calcium formation. The natural veins are precise with a gestural quality and appear almost painted in that they mimic in an eloquent sway the inner concave of the rock face, meandering across its surface (**Fig. 7.14**). The lines contain a natural mixture of reds that flow from dark maroon to red to pinkish red, accented in just the right areas to convey the three-dimensionality of a rounded rope or vine. Additional naturally occurring accents in white may be further calcite runs throughout the central surface and marginal outline. While the exact geological origin of this natural colouring has not been formally investigated, its visual properties and physical presence may have influenced the placement of the locusts nearby. Perhaps this vein links visually to the red lines of potency discussed previously and its connotation to potency.

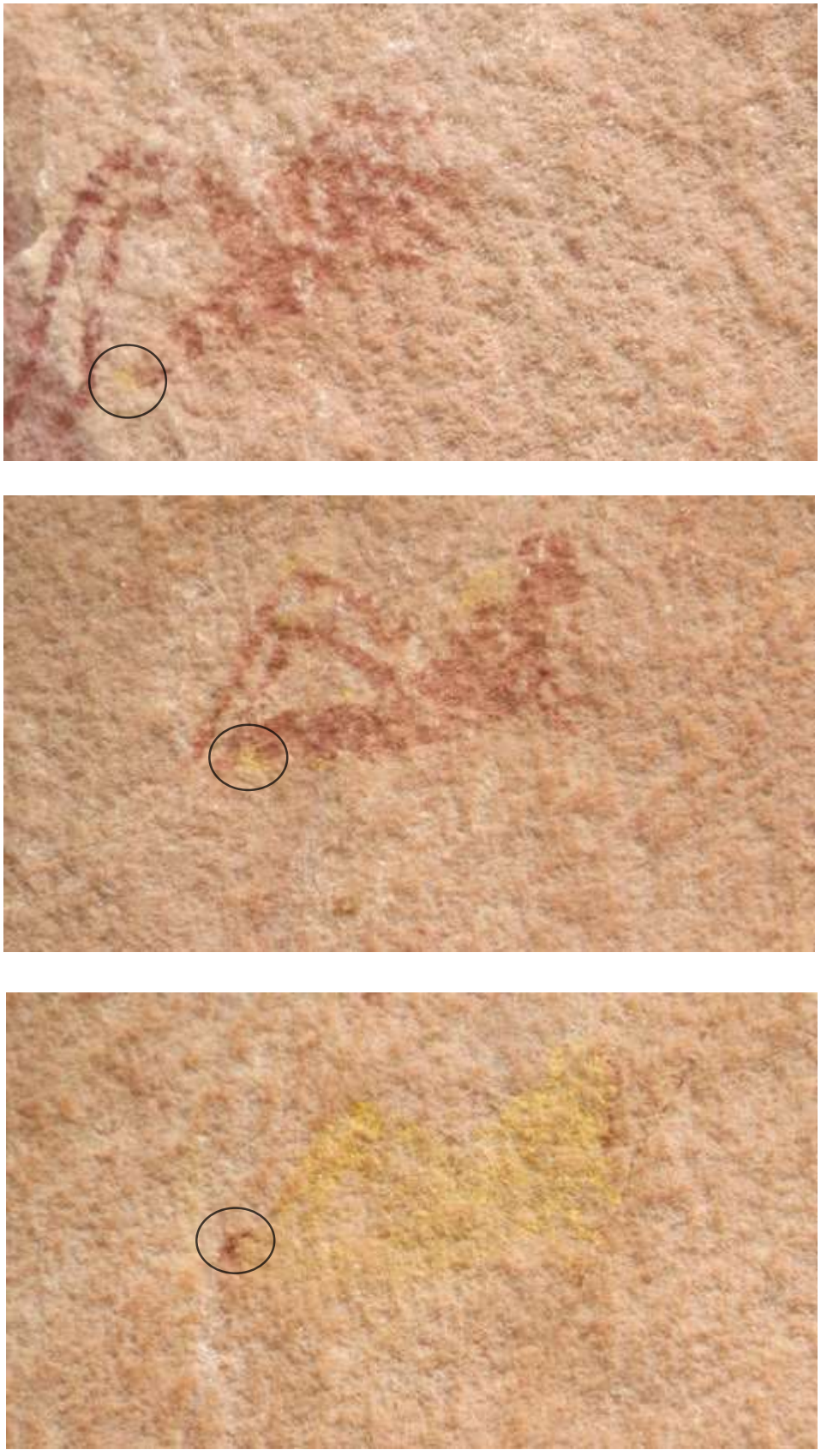


Fig. 7.11. Kaoxa's Shelter, Machete Game Farm, Limpopo. Detail. Top. Visible yellow accent on red locust. Centre. Locust accented in yellow Bottom. Yellow locust with red accent. Photographed by Dr Deborah Sanders, 2014



Fig. 7.12. Kaoxa's Shelter, Machete Game Farm, Limpopo. Detail. Locust imagery partially superimposed to natural red colour veins present in the rock face, Photographed by Dr Deborah Sanders, 2014



Fig.7.13. Kaoxa's Shelter, Machete Game Farm, Limpopo. Locust panel showing natural red coloured veins and calcite on the rock face. Photographed by Dr Deborah Sanders

The Relationship Between Motif and Pattern, Colour Aesthetic

The unique depiction of the locust imagery at Kaoxa's Shelter has facilitated a reliance on the remaining visual representations available at the site and previous field records. This information was used to determine the aesthetic motif and variant pattern. According to the field records, the yellow locust is the only one singled out because of its colour (**Fig. 7.15**) (Eastwood et al. 1998: Panels 6, 7):

> Panel 6: At the base of the panel are three images of locusts
> Panel 7: This panel faces both east and north and curves around the rock face. In the part facing east are depictions of a long-legged animal and three locusts. The lower image is painted yellow. On the north-facing aspect are seven small paintings of locusts.

There is special mention of the yellowness of the locust in panel seven. Although the locusts, except the

one specifically designated as yellow, are not explicitly described as being red, it is possible given the previously recorded information of their visual representation at the site. This data along with the designation of this site as the only one in southern Africa with locust imagery allows further conjecture that special notation of colour for the yellow locust that it is likely a variant of the predominantly red rendering of the locust motif.

Other attributes of the motif include the circular marking on the abdomen, or ovipositor, apparent in all three remaining locusts and usually rendered in a contrasting colour. Other aspects of deviation are limited by the visually obscured imagery. While all three locusts utilise the colour red, albeit in varying saturation levels, only the bottom two locusts use a complementary colour to relay dimension and perspective from within the imagery itself. The first locust in the vertical pictorial arrangement uses its dyadic complementary yellow for accentuation of the ovipositor. There is additional nuance in the placement of the complementary colour for the bottom two locusts. The red locust has the accent colour yellow on the ovipositor, the central bend of the two hind legs and the base of intersection of the head and thorax, creating a subtle yet profound basis of symmetry centrally and in perspective (**Fig. 7.16**). On the yellow locust, the complementary hue red has been placed on the ovipositor and secondarily as a thin outline on the frontal precipice of the head and first half of the thorax-underbelly (**Fig. 7.15**). It should be noted that additional pictorial attributes may have vanished due to paint loss in the intervening time since these figures were painted.

The designation in red with complementary markers is the more common form of the locust imagery. The rendering in yellow represents a derivative of the motif with inversion of the colours and could signal a shift in meaning.



Fig. 7.14. Kaoxa's Shelter, Machete Game Farm, Limpopo. Detail. Locust rendered in red. Photograph courtesy of Dr Deborah Sanders, 2014

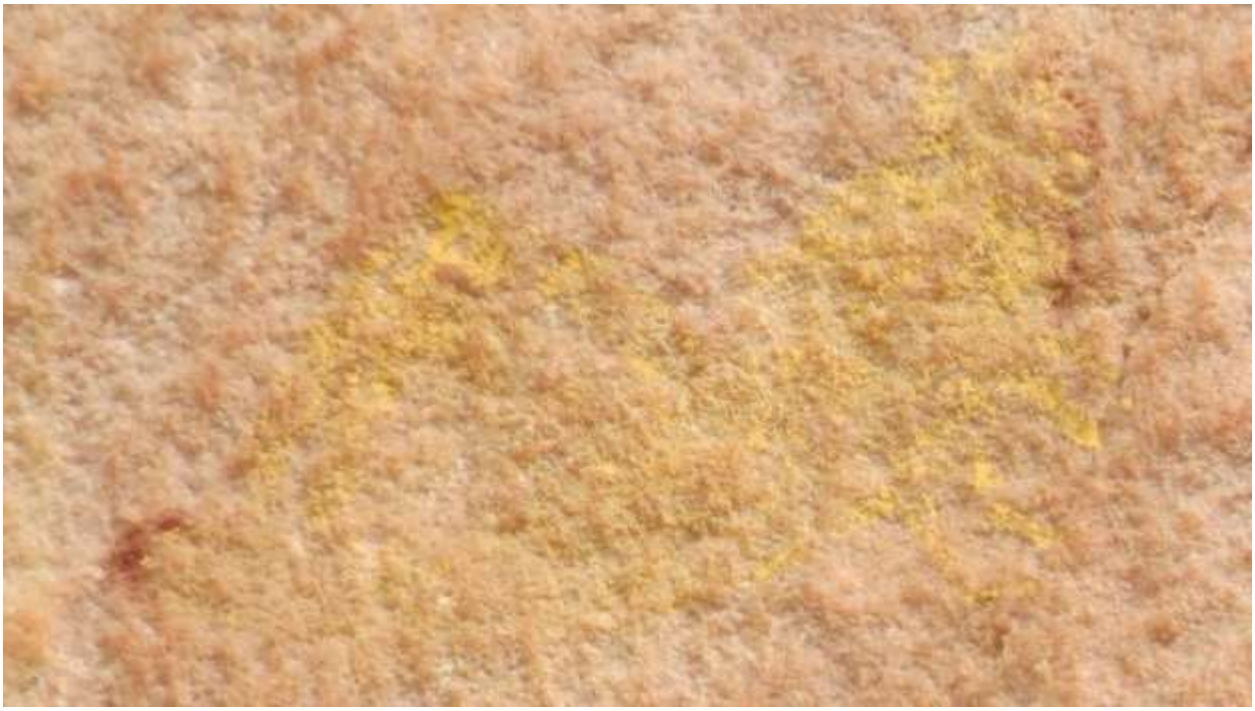


Fig. 7.15. Kaoxa's Shelter, Machete Game Farm, Limpopo Province. Locust rendered in yellow. Photograph courtesy of Dr Deborah Sanders, 2014

This analysis of the aesthetics of the locust imagery reveals some deviation from the standard motif through a colour change reminiscent of the kudu imagery, and the patterned variant of the giraffe motif. The three of my examples of polychrome fine-line imagery at Kaoxa's Shelter show an explicit change from a motif most commonly depicted in one colour, to a less common variant in another colour. From an aesthetic point of view there are innumerable ways for the expression of a motif to be organised pictorially in a composition. An analysis of one patterned extension of that motif begins to draw meaning from the point of divergence. In all three examples, that point of distinction comes through colour and a potential relationship to potency (see quote below). A recurrent communicative visual device may be pointing to a shift in conceptual design and its associative meaning. The next stage of analysis investigates metaphoric correspondences located in the San ethnographic and narrative archive.

Implications of Meaning, Colour Metaphor

|Kaggen, who occupies the yellow position in the rainbow, has often, as extensively discussed, been associated with the universal trickster character, an ambiguous figure who can swing indiscriminately from the profane to the sacred or divine (Guenther 1989; Lewis-Williams 2000). And while this universal archetype is a global phenomenon, how can elements of his association with the binary characterisation of the rainbow inform contextual meaning? Perhaps, as Wessels has evinced, elements within the narrative can generate meanings from intertextual relationships already present in |Xam signifying practice (Wessels 2010: 166). In other words, aesthetic structures might be obtained directly from close visual examination of the art in conjunction with what we know of the indigenous knowledge systems of the San. Based on this notion, I begin to deconstruct some of the key parameters surrounding the rainbow literary analogy and fundamental aesthetic elements to infer plausible metaphoric associations.

Pictorially, the colour yellow in the locust motif is applied systematically to the ovipositor, or rear abdomen, and to the full body of one locust with its ovipositor accented in red. The colour yellow also appears to represent the variant of the locust motif signalling a modification in meaning or representation, yet somehow related to the original. In this case, it would be related to other visual and literary contextual information. From a visual standpoint, Kaoxa's Shelter has many pictorial attributes that correlate to girls' puberty rites, such as women's aprons (Eastwood et al. 1998: Panel 5). Likewise, the opening quote for this section highlights a significant literary reference and analogical verism to the sacred and dangerous ambiance of locust egg pods and plausibly, girl initiates during seclusion. There is a specific association of the developing locusts underground and people who are isolated for an allotted time.

There is an explicit analogy made regarding the locust egg pod, which is deposited into the earth for the incubation preceding maturation, and the seclusion of people, potentially the transition or liminal phase of girls' rites. The extensive references in the Bleek-Lloyd archive include the following species of locusts:

Common Milkweed Locust (**Fig. 7.15**) (*Phymaleus morbillosus*, *!na,* |*kabba*-|*khwa*) [red, black and yellow]; Common Cape Locust (*Acanthacris ruficornis ruficornis*,|*kabba*-|*kha*) [tan, brown]; Brown Locust or Desert Locust (*Locustana pardalina* or *Schistocerca gregaria*, *!hau, !hou*, among others cf. McGranaghan 2014: 5 Table 1) [Brown Locust: tan, brown, black; Desert Locust: tan and black or yellow and black]. All locust species have developmental phases that are pertinent to the discussion on the metaphoric inferences that may be imbedded within this motif. The reference quoted appears to refer to the egg pod that is excreted from the abdomen of the female locust into suitably soft ground soil. Once the egg pod has been placed into the ground, the female seals the incubation hole with dirt, and plugs it shut to ensure that the pod is not desecrated (Choe 2019). Often, females will lay eggs in close vicinity to one another. The egg pod remains in the soil for an incubation period of approximately two seasons, but if weather conditions are unfavourable the pod will lay dormant until more suitable weather patterns are available (Ibid.).

The importance of the rear abdomen or ovipositor in the function of fertility for locusts is evoked aesthetically in the colouring of the painted motif. On all three locust paintings the tip of the ovipositor is emphasised through complementary colour rendering, wherein the allocation of yellow in two instances integrates with the red main body, and in the other case, a red emphasis for the mostly yellow body. The biological function of the locust morphology is conveyed through an emphasis on colour.

Additionally, the association and explicit correlation between locust behaviour and the sequestration of a female initiate during girls' rites is articulated in the ethnography: '[t]hey are like people whom we have put somewhere where they can't get out unless we talk to them, but have to wait for the time when we tell them (to go)' (L.V.-21. 5708–5719 ½; BC_151_A2_1_070). The conceptual notion of separation for the specific purpose of transformation is also reflected in the fertility practices of the locust. The maturation of the locust, and plausibly of the girl initiate, are analogous. For instance, a female initiate experiencing her transition from childhood to womanhood duly marked through the commencement of her menses undergoes a period of transformation described by Eastwood and Eastwood:

> Girls' rites follow the typical pattern of separation (preliminal phase), transition (liminal phase), and reincorporation (postliminal phase). At the onset of her first menstruation a girl is confined to a specially built hut, and remains there for the duration of her menstruation and for sometime afterwards. The young woman is redolent with *n*|*om*; she is powerful and elemental. Menstrual blood contains powerful potency. Women's menstruation is called *tsau n*|*om* by the !Kung. This extraordinary supernatural power is very much respected by the San. It affects social relationships, the coming of rain, and hunting—matters of life and death in the Kalahari San's survival strategy. It is important that the girl undergoing her puberty rituals adheres strictly to the prescribed rules during her seclusion and subsequent reincorporation into the community. During this time the girl may not touch men or their weapons because of the

> negative effects of her transitional state. In her seclusion house she lies wrapped in a skin kaross (blanket) and it is here that she receives instruction from her mentor or mentors, usually elder kinswomen. (2006: 135, after Van Gennep 1960; Turner 1967)

There are three main areas that elucidate the metaphoric parallels present in the locust motif. The clear analogical association of San seclusion practices for girls' rites and the incubation of locusts; the colour reference to |Kaggen (the Mantis) and the colour yellow in tandem with the ambiguous notion of the profane or sacred binary; and the aesthetic colour modelling between the convention and the variant.



Fig. 7.16. Common Milkweed Locust (*Phymaleus morbillosus*, South Africa. Photographed by Gregorie Dubois, licensed under CC BY-NC-SA 2.0

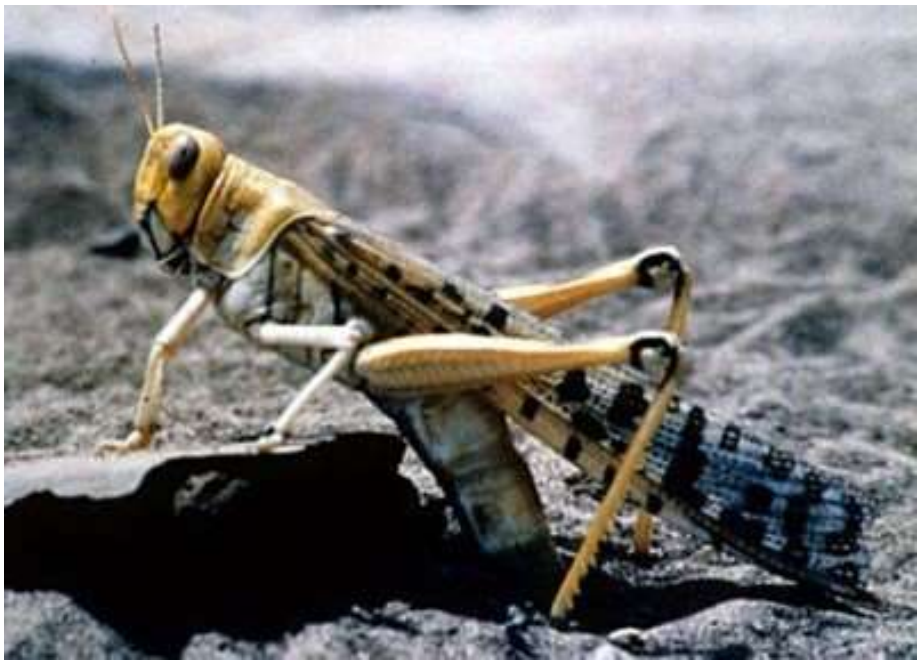


Fig. 7.17. A desert locust (*Schistocerca gregaria*) laying eggs, Photographed by IITA Image Library is licensed under CC BY-NC-SA 2.0

These point to the interpretive translation of the locust motif as a pictorial index of fertility. The potency of this virulence may be further emphasised in the yellow variant, and if congruent with the |Kaggen classification of polarity, might encompass the beneficial and malevolent duality. This ambiguous nature is also prevalent in the menstruating girl, and great measures are taken in ritual seclusion to mitigate her liminal phase and dual capability of creation and destruction.

The locust motif retains a distinct shift in colour from the motif to the variant and corresponds to ethnographic references specific to colour (Bleek & Lloyd 1879; Bleek 1911). The intersection of various dialectical strands referring to binaries and liminality include ‘she rain’/‘he rain’ and |Kaggen (red)/|Kuamman-a (yellow). This analysis combines the distinct technical and aesthetic appropriation of the colour yellow with the morphology of the locust ovipositor and a direct ethnographic reference to the analogous nature of locust egg maturation and girls’ puberty rites involving seclusion. This points to the semantic relationship between the visual output of the locust motif and the concept of ‘liminality’. This reflection on colour adds to the earlier interpretations of the locust motif as respected with supernatural powers and a metaphor for feminine potency.

SECTION II OVERVIEW

The previous three chapters (5 to 7) present a layered site study of fine-line motifs, located at Kaoxa's Shelter, which hasn't before been the subject of close visual analysis. Kaoxa's Shelter contains a vast and colourful panel with an unusually diverse array of different animal species. Here the integrated formalist-ethnographic approach is applied to a curated selection of animal motifs with interesting colour attributes.

Chapter 5 examines a polychrome giraffe. The giraffe is considered in relation to two other examples of giraffes at other sites in the region, and all three figures are explored in relation to mentions of giraffes in the ethnography and their associations with spiritual potency and weather, in particular clouds and rain. The giraffe at Kaoxa's Shelter is the more stylized of the three, and also incorporates small rounded cupules that are a natural feature of the rock's surface, and which evoke hide markings through their texture as well as colour. A subtle gradient from dark red to red-orange across the belly of the animal produces a sense of rounded volume, suggesting pregnancy. Through its subtle colour attributes the giraffe thus harnesses different kinds of power, and embodies in several ways themes of transience and fertility. The analysis shows that this example suggests correspondence between a conceptual triad of water/rain/potency and a visual triad of black/white/red.

A panel with kudu is the subject of Chapter 6. It begins with an overview of the widespread links in anthropological and rock art scholarship between kudu and women's fertility. The subtle colour features of a particular panel are examined comprising two female kudu painted next to one another and portrayed primarily in yellow. Whereas most kudu in the region are painted in red, yellow is a frequent alternative, which establishes a relationship between these two colours. Red and yellow form a dyadic colour scheme, meaning that they are near to one another in a general colour spectrum but are different enough to create a contrast. Similarly, they feature in the ethnography as respective attributes of the characters |Kaggen and |Kuamman-a, who have familial links. These two colours are also linked in ethnographic accounts of rainbows, and this study proposes therefore an association with changes in weather and other celestial phenomena. These are transformations that are also cycles; they are potentially auspicious as well as dangerous. The entanglement of these two colours seems therefore to allude to a shift from one state of being to another across different contexts. Considered in the context of the kudu panel, and kudu imagery more widely, it reinforces a reading in terms of the process of transition from girl to woman. It suggests that a red/yellow schema can convey transformative potential and associated liminality.

Chapter 7 turns to the locust imagery at Kaoxa's Shelter. Several locusts are depicted in red with some yellow marking particular points of emphasis on the insects' bodies, including the ovipositor, which has the effect of highlighting the locusts' fertility through their ability to deposit eggs into the ground. One of the locust motifs is inverted, with yellow forming the primary colour and red used for emphasis, pointing

once again to the duality through similarity and contrast of red and yellow. Excerpts from the Bleek and Lloyd archive establish a metaphorical parallel between the incubation of locust eggs and seclusion practices for girls in their transition to women. The red/yellow scheme, explored in Chapter 6 in relation to kudu imagery, seems to operate in a similar way across different subject matter, invoking potency, liminality and transformation, but in a way that is adapted/inflected in relation to the specific visual and symbolic features of what is being depicted.

The forthcoming Findings and Conclusion (Chapter 8) pulls together key outcomes from the chapters collectively. Through the numerous examples discussed, the art's coloured aspects animate similar topics appearing in the ethnography and vice versa. The black-white-red triad (encompassing yellow in its dyadic relationship to red) is useful as a guide for this exploration, enabling perceptual and analogical dimensions of colour to be combined with conceptual and metaphorical dimensions. These associations reveal practices of creative expression rooted in key social values within San communities. As a result, this study has developed a cluster of affiliations for each colour that feed into a relational structure for the colours all together. The chapter also looks to the future, proposing that the formalist-ethnographic approach has potential to be developed further, and could also be fruitfully combined with exciting new areas of rock art analysis using forensic techniques.

CHAPTER EIGHT – FINDINGS AND CONCLUSION



Fig. 8.1. Kaoxa's Shelter, Machete Game Farm, Limpopo. Left. Polychrome imagery of the giraffe; Centre. Kudu; and Right. Locusts. Photographed by author

Thesis: Colour valence examined through the use of black-white-red triad in San Rock paintings enhances our knowledge on the role of colour within the indigenous knowledge systems of the San.

This study tested the thesis stated above by examining San rock paintings in three regions of South Africa. Field study was undertaken at Kaoxa's Shelter, Mapungubwe, located in the Limpopo Shashe Convergence Area (LSCA). The LSCA is a culturally rich region that is home to fine-line paintings of San hunter-gatherers. The colour complexity of the San rock paintings in the area initiated this study and remains under-researched. The LSCA of northeastern South Africa, southeastern Botswana and southwestern Zimbabwe provides a remarkable opportunity to explore the convergence of cultures and the creative expression still available in the landscape.

A formalist-ethnographic approach was used for this study. One of the outcomes of the formalist approach to San rock paintings is highlighting the richness of colour in its compositional arrangement. Colour analogies in the ethnography have revealed correlation with occurrences of atmospheric and social cohesion. Semiotics provided a useful theoretical tool for the translation of meaning through the process of an indexical translation of a sign. The translation or interpretation of San rock paintings has effectively occurred within the index of materiality, an important aspect of which is colour. Through a formalist-ethnographic approach undergirded by semiotic theory and an emphasis on materiality, this study provides a useful strategy for analysing San rock art. The integration of art historical theory and

interpretive methods with rock art studies and approaches is productive, and could be developed further in future studies.

Colour has been a key component to the analysis of San rock painting. The black-white-red triad has served as a module for interpretation that bridges an interdisciplinary gap between anthropological studies and art history. It has shown that the triad is a relational framework that operates visually as well as conceptually, with parallels between colour use and key social values revealed by anthropological studies of the past such as societal harmony and balance. The black-white-red triad has also been newly associated with transformation and transmutation based on |Xam archival material. The colour yellow, or 'bright' has been recognised as an important counterpart to the colour red in the black-white-red triad. The |Xam colour terms and colour categories developed through this study formulate a rich resource for ascertaining potential colour metaphors which can be further developed for intertextual and related ethnographic relevance.

Considering the expansiveness that this inquiry centred on colour has opened up, the project also highlights the many areas of colour analysis that remain ripe for further development and continued research. The procurement and sourcing of white and yellow pigments remains an underdeveloped area of research. It is clear that some white pigments are obtained from ground ostrich egg shells and/or animal droppings (hyena, among others). While extensive studies have not been conducted on the procurement of white paint, current studies do not indicate that its sourcing involves the reverence sometimes associated with red pigment. Yellow has been found to be a significant auxiliary to the black-white-red triad, particularly in its dyadic relationship to red. It originates also from iron oxide ochre from which the red pigment is obtained. The ochre, a naturally occurring mineral, varies in colour from brown/purple to red to yellow. As with the white pigment, there are as yet no substantive studies highlighting ritualistic procurement of this pigment in its yellow form. The area of colour engagement with the rock face too requires more attention. The power of colour as a fundamental material property of rock and rock painting warrants further examination as well.

A key component for the interpretation of specific San rock painting motifs has been possible through colour analysis. The colour layering of the paint patch motif revealed the significance of the materiality of the paint medium. The relationship between the 'threads of light' motif and the 'bleeding threads' variant revealed a colour shift and aesthetic designation alluding to a parallel shift in meaning. The 'swift people' motif embodied a colour complement red-yellow and tonal-linear distinctions signalling metaphors for the duality of ethereal and physical.

The study of colour at Kaoxa's Shelter through the kudu, giraffe and locust motifs have illuminated its potential use as a conceptual analogy for the cyclical nature of life, and in essence, living things. The

kudu motif colour analysis links conceptually to fertility and initiation which align with other widely accepted initiate imagery present at Kaoxa's Shelter. The giraffe motif is a polychrome example at Kaoxa's Shelter and the colour analysis has shown its connection to weather. The locust motif imagery is rare and its colour designation on the rock face has linked it to transformation and fertility. All three motifs exhibit colour analogies related to the numinous place of liminality, and often indicated through shifts in colour in the imagery. Polar states of being can only be obtained through the transitive space that exists between the manifestation of two opposites. For instance, male and female exist as dual nature, potentially present at the same time within the same entity. The true spark of creative force, however, lies in the transitive stage between states. This is the transmutation that is neither male nor female but numinous, a quality that transpires to cycle from one state to the next. After an analytical review based in formalist principles, colour appears to be the powerful medium through which this intangible state of interstasis is made tangible through the deliberate use of pigment.

The research was based on a close visual examination of the fine-line traditions of San rock paintings of the kudu, giraffe, and locust motifs. To provide a comparative analysis, field studies were also completed at two sites featuring the fine-line tradition of the San in the Western Cape. The motifs that were examined in the Western Cape, were the 'paint patch' motif and the 'swift people' motif. Secondary research was completed on the 'threads of light' motif located in the Eastern Cape. The three sites were instrumental in developing analysis of the selected motifs at the primary site, Kaoxa Shelter. The findings are detailed below:

(a) The paint patch motifs explored at the Sevilla Trail in the Western Cape are predominately done in red or yellow, with few instances of black. The black-white-red triad is evident through a combination of natural and weathered rock surface colours (black, white) and paint colour (black, red, yellow). The use of yellow or 'bright' is a critical hue in addition to the black-white-red triad at this site.

(b) The 'swift people' motif at Ezeljagdspoort in the Western Cape is an example of the use of the black-white-red. The colour yellow (bright) is an important colour in association with the black-white-red triad.

(c) The 'bleeding threads' motif at Fetcani Glen, Eastern Cape is demonstrative of the black-white-red triad. The triad acts as a device for compositional balance as the rock face (dark, black) in concert with the duality (red, white) of the imagery, and natural features, calcite run (white).

(d) Kaoxa's Shelter contains a colourful palette with both bichrome and polychrome images.

(e) In the giraffe motif at Kaoxa's Shelter, the colour originates from a palette of pure red, black and white to an application of tempered tones. The tempered tones result in the clear black-white-red aspects of the triad, but rendered in modulated hues of maroon, light-red and grey. This use of black-white-red signals transformation.

(f) The giraffe motif at Kaoxa's Shelter is polychrome and indicative of the black-white-red triad. The spots are a pattern variant of the motif. There is colour layering as one observes colours positioned on top of each other. The giraffe spots are non-naturalistic, or non-representational.

(g) In the kudu motif at Kaoxa's Shelter, the colour originates from a palette of pure yellow, red, black and white to a modulated polychrome palette of the triad with neutralised tones of mustard-yellow, orange-red, cream-yellow and dark-grey. There is use of the black-white-red triad.

(h) The kudu motif shows signs of interaction and intentional rubbing or smearing and may signal this practice as evident outside of the Western Cape.

(i) Three locust motifs were analysed at Kaoxa Shelter as bichrome. They exhibited the colours of maroon, red-orange and pure yellow. An accent of the dyadic yellow occurs in the case of the red locusts, and red accent on the yellow locust. The most prominent colour relationship in this motif is between red and yellow.

(j) The black white red triad is evident in the three locust motifs in the temperance of the pure hue or colour in the initial colour scheme. The physical plane of the rock face is colourful and often mimics the colours of the triad.

Ethnographically the use of the black-white-red triad has been closely affiliated with initiation (Turner 1967: 88). In this study, the triad has been most commonly associated with transformation when all three colours are used. As a colour grouping these hues have been shown to signal 'actualisation' or becoming. The colours within the triad, as separate hues, have also informed their relationship as a unit. For instance, black and white rendered as singular hues, in this study, have often been used formalistically to alter other hues or create dimensionality, compositional balance and harmony. Additionally, black and white have been used in their singular context through natural occurrences of shade, contour and calcite formation as a vehicle of material engagement with the rock surface and perhaps, invariably the three-tiered cosmos of the San. The red hue, and its dyadic counterpart yellow, has been shown to signal fertility in select motifs at Kaoxa's Shelter. Formal colour designations in red or yellow in the oestrus of the kudu motif, womb of the giraffe motif and ovipositor of the locust motif are all associated with fertility. As a result of these findings this candidate proposes a cluster of associations for black

(shade/materiality/balance), white (tint/materiality/balance) and red (fertility/vectors of spiritual travel/potency). These singular associations inform a relational structure for the colours all together and communicates the scope of balance (black/white) in the spectrum of transience (red) and the overarching duality of stability and liminality. This also relates in a wider perspective to the life-death cycle at the foundation of many indigenous cultures replicated in nature and the harmony of a polemic binary (black/white) and the penumbra or transitive state (red) between the two.

Colour enriches and extends our current understandings of the relationship between the art and the ethnography through metaphoric patterning. This study makes the case for heuristic usefulness of the triad as a relational framework. The black-white-red triad relates to the system of social values discernible in other aspects of San society through aesthetic resonance with the oral literature. It reinforces what studies have already shown such as performative interface and interaction, pigment potency, prose as a platform for an investigation on the creative process and increased awareness around materiality. The triad is a useful framework linking aesthetic and social values and contributes in a new a way to the structural analysis of San paintings based on colour. The complexity of colour analysis was mitigated through a core grouping of colours with affiliate complementary and dyadic properties used as a platform for colour varieties. Although its presence may be subtle, the black-white-red triad also invites further art historical discourse through a formalist-ethnographic approach.

Future Engagement with Colour Analysis

The integration of ethnography with an art historical approach through formalism is an effective way to study San rock art. Colour is a critical element in a formalist analysis and subsequently vital to the translation of San rock paintings. Aspects of the material meaning of San paintings can be derived through an examination of colour. The materiality of the paintings is critical for the translation of social and cultural significance. As a component of materiality, the black-white-red triad is a creative compositional device integral to cultural ideologies in many regions of Africa. In the paintings of the San the black-white-red triad has a contextual affiliation with balance and transformation as evidenced in the ethnography.

There are many areas that remain ripe for further development and continued research. The procurement and sourcing of white and yellow pigments remains an underdeveloped area of research. More research in this area could reveal the exact procurement location for the paintings in the LSCA. Pigment analysis is also an important area for future research on the materials used to prepare the paint.

The area of colour engagement with the rock face requires more attention. The idea of the rock face as a veil or traversable membrane is widely recognised (Lewis-Williams & Dowson 1990; Whitley et al. 1999:

234; Lewis-Williams 2002: 115; Hampson 2013: 364). However, the power of colour as a fundamental material property of rock and rock painting, and its plausible role in the transition from one world or dimension to another, warrants further examination.

A significant outcome of this study on San rock paintings is highlighting the richness of colour in its complex compositional arrangement. Colour details that appear to express ideas reflected in the ethnography, support the notion of colour valence and extend our understanding of the San creative process.

Annexure I. |XAM ORAL LITERATURE COLOUR REFERENCES

RADIANT HUE: EXPLORING THE SIGNIFICANCE OF THE BLACK-WHITE-RED TRIAD IN SOUTHERN AFRICAN SAN ROCK ART

Table 1. *Colour as a Metaphor*, |Xam Oral Literature Colour References[51]

Collection Reference	**Colour Reference**	**Summary**	**Colour Attributes**	**Metaphoric Implications**
Bleek & Lloyd 1879: 6600–6601, 6603–6604 **LL.VIII.7.6600–6604** Bleek & Lloyd	*The rainbow. It is yellow, its place which lies above; a thing which looks red […] while the Mantis is the one who is also yellow; he is the one who lies above; while kuamman-a lies underneath […] the Mantis is the one whose part which is uppermost, it is yellow; while his part which lies underneath it is that which is red […] the people say, the rainbow*	This quote speaks of the designated positioning of |Kaggen and his son-in-law Kwamman-a. It may allude to social hierarchy, as |Kuamman-a is often seen as adjunct or 'anomalous position in |Kaggen's family' (Lewis-Williams 1998: 203; Wessels 2010: 88) to an established family structure—a carnivore married	Yellow (uppermost), Red underneath), location of colours in the rainbow	Adjectival and Categorical usage *Intertextual association: Rain, hunting springbok

[51] This is an abbreviated list of |Xam colour references derived from the Bleek and Lloyd archive and does not constitute a comprehensive enumeration of all references to colour in the ethnographic record. These colour references were generated specifically for this study and are an attempt to collate colour attributes and categorical cross-referencing with an aim to build upon this resource in the future.

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
LL.II.22.1965–2042,1974v	*stands yonder, and the rain will break. (|han#kass'o, March 1878)* *Kuammanan's house is the rainbow; kaggen's house is above that. (IIkabbo, 20 September 1872)*	into a vegetarian family unit (Lewis-Williams, 1998: 203,204; Wessels 2010: 88). It is also associated with the 'breaking of rain' and the seeking of springbok. BC_151_A2_1_082 6604		
Bleek & Lloyd 1911: 76 (BC_151_A2_1_034_2517 **LL.II.28.2516–2520, 2516v**	*She threw up a scented root (eaten by some Bushmen) called !huin, which became stars; the red (or old) !huin making red stars, the white (or young) !huin making white stars. This root is, ||kabbo says, eaten by baboons and also by the porcupine.*	Young maiden isolated potentially during rite of passage creates stars to light the way for hunters at night.	Red (old), White (young)	Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
Lucy Lloyd notebook 13 January 1875 BC_151_A2_1_052_4074 **LL.V.3.4071–4074**	*Little bees when chewed are white like milk. They are still in their cells; these latter are red.*	The development of bees.	White (little bees), Red (latter [older?])	Culmination of time, potential stages of maturation, growth, or evolution
Lucy Lloyd notebook August 1879 BC_151_A2_1_106_8753 **LL.VIII.31.8755**	*[…] for the benne [locust with newly developed wings] is red like the earth. The grown-up locust is black.*	The development of locusts.	Red (*benne*, intermediate stage) Black (adult locust)	Culmination of time, potential stages of maturation, growth, or evolution
BC151 E4.2.1 Page 37/ January 1873 Venus	*!gabbuken !game-ta !gabbuken The Day-Break's great tani?* *!goro- ta or goro-ttwai This last name refers to the Bushwomen singing to the stars*	The Bushwomen singing to the stars with their throats, making it set.	White (illumination), Red (sun set, passage of time)	Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
	with their throats, making it set. *//oin-si-Tkunken The Sun illuminates it, making it white. When the sun has set, it again becomes red.*			
Lucy Lloyd notebook BC_151_A2_1_116 September (started) – 25 November 1880 9602–9607, 9605v–9607v, 9609v–9616v **LL.XI&XII.8. 9602–9607, 9605v–9607v, 9609v–9616v**	*|xue was little and not handsome, and resembled the moon, and (was) red, very red, like the sun, and the people were afraid. [A2_1_116_09606.JPG opposite]*	*|xue journeys to his country (and his mother's and father's country) and searches for his father. He hears two people coming, so he becomes many !naxane leaves. The people see |xue's fire and search for him and |xue changes into !naxane fruit. The people want to eat the fruit, but |xue becomes many butterflies and the people run away. |xue changes back to a*	Red (little, moon / very red like sun) Black (butterfly) White (mother's milk)	Transformation *Intertextual association: Rain

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		|xue-child and lies down, crying for the people to pick him up. The people hide from |xue. |xue stops being the Sun but becomes a little fly, and then a large black butterfly. He calls for the women to pour their (women's) milk into his eye, but they pour badly and |xue can only see from one eye. |xue 'works' rain to fall on the women. He sounds a |ou's horn (the |ou is a small buck, probably a steenbok) and 'works' fire and the fire burns for many months. |xue climbs a palm tree and sleeps at the top of it. |xue's wife chops the tree down despite his protests. [This		

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		story was supposed to 'be continued' (page 9616v) but appears not to have been.]		
Lucy Lloyd notebook October-November 1871 BC_151_A2_1_014 565–624, 811–882 **LL.II.5.565–624, LL.II.8.811–882**	'Red gift' poison. [pg. 815]	*A story describing how the Mantis is tricked by the Great Tortoise (L II.-5. 565–624, 8. 811–882). This is followed by a discourse on the degrees of understanding possessed by*	Red (describing colour of poison)	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		various animals (L II.-8. 822–892).		
2 September – October 1873 Lucy Lloyd notebook BC_151_A2_1_04 1 3150–3159, 3165–3236v **LL.II.35.3150–3159, 3165–3236v**	p.3193v: *The sun's light used to be white in the day and red at night, like fire.* [explanatory text 3193 opposite]	*The children of the First Bushmen (who preceded the Flat Bushmen in their country) throw up the sleeping Sun into the sky, or the children of the !khwe |na ssho !ke, ordered by their mothers, throw the sleeping Sun into the sky (a second version of the story).* *The Sun, a man from whose armpit brightness proceeded, lived formerly on earth; but only gave light for a space around his house. Some*	White (day), Red (night)	Practical use, descriptive Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		children belonging to the First Bushmen (who preceded the Flat Bushmen in their country) were therefore sent to throw up the sleeping Sun into the sky; since then, he shines all over the earth.		
29 December 1873 – January 1874 Lucy Lloyd notebook BC_151_A2_1_047 3701–3737 **LL.IV.3.3701–3737.**	And it (the chameleon) came down from the bush; the bush it had stood upon it. It walked coming down from the bush; and it walked upon the ground, and the children ran along by it. And it became white.* Notation (verso)* (like the rainclouds)	*How an old woman asked a Chameleon for rain, and knew, from its way of looking, that rain would fall; as it indeed did that very night. In the Katkop dialect, by ǂkásin, who heard it from his mother (L IV.-3. 3701–3737). The family smells the rain coming and find rain-plants which*	White (chameleon, rain clouds)	Practical use, descriptive Culmination of time, potential stages of maturation, growth, or evolution *Intertextual association: Rain

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
	Notation (verso)* When they saw that the chameleon became white, they knew that it was really going to rain; they were not afraid of the rain but their hearts were satisfied… [3704–3705]	*the old woman throws on the ground to make moisture and the two children find and cook a great tortoise and eat it.*		
Dorothea Bleek notebook BC151_A3_016 January – March 1921 and 1922 267–339 **DB.V.267–339**	[…] they smeared themselves with black, they put on karosses they smeared the head with fat caps they put on. . .	*p.298v–303v: 25.2.21. Anni u. Visitors and dancing, this is the first part of a lengthy account of death and spirits - 'we believe in ǁgauwa the first people told us of it', on 'first men' and magicians who meet them: about death and seeing the dead, on being fetched by the dead, becoming spirits,*	Black (used for skin) Yellow (ǁgauwa's servant)* *The image of //gauwa varies. The present image accords with the traditional images in some respect … //Gauwa is short. He has the form of man but can appear in other forms. The colour yellow is	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		*on 'obstinate' people, cutting and dancing, doctoring and sorcerers, on smearing with black and putting on karosses, singing, the ǁ*gauwa's servant, *the 'yellow one' and 'the brown one', on the 'bull dance', the dance 'when cut' is called a 'magic dance'. This goes into an account of praying to the moon, about the moon, what the old people say, it cuts its navel.*	associated with him (Marshall 1999: 25, 26).	
Dorothea Bleek notebook BC151_A3_016 January – March 1921 and 1922 267–339 **DB.V.267–339**	*When the sun is very big and red at sunrise - the doctors say they know about it, people ask if it is dead. The elands[?] fall that was like the sun is.*	*p.316: On having twins, on childlessness, the treatment of the woman, if the first wife is childless he does not put her aside but keeps her and takes another, if the first wife is friendly they*	Red (sun, death)	Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		all stay together in one house, this is not common practice 'not many people do it', on the eclipse of the moon which is called magic, it decays, they were afraid, the doctors say they know about it, they worry about the death of the sun if it is big and red at sunrise.		
Dorothea Bleek notebook BC151_A3_016 January – March 1921 and 1922 267–339 **DB.V.267–339**	*She was black she was not like a [?] she was a evil [?] the eyes were red…*	*p.332v–333: On sorcery & the !gi dance: something winged, black & evil seen when they were dancing the !gi dance, a description, it ran away, it only talks with the old men, only comes when they dance, 'the sorcerers were not afraid'.*	Black (mysterious), Red (eyes)	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
Wilhelm Bleek notebook BC_151_A1_4_002 1871, 1872, March 1873 (notes added) 379–390, 421–428, 429–460, 501–514, 515–526, 528–590, 1497–1590, 1591–1683, 1698–1711, 1725–1758 **WBII.379–390,421–428; WBIII.429–460, 501–514, WB.IV.515–526, 528–590, WB.XVL.1497–1590, WB.XVII.1591–1683, WB.XVIII.1698–1711, 1725–1758**	*[…] for she is red. The old […]* [374] Thus the moon is red from the Devil's veldschoen it is, it is red, it is cold […] [382] *[…] he is red because he is [illegible] by, me he comes out of the darkness[…]* [440] *Shorter version (LII.-24. 482–486), and a longer version (BII. 379–390, 421–428, III. 429–433)	*The origin of the Moon is an episode in the story of the Mantis and his pet eland. When the Suricats, who were present at the cutting up of the eland, ill-treated the mantis, he found upon a bush another eland's gall-bladder, and this (as mentioned above) he pierced and broke, thereby creating a darkness into which he sprang; but, being inconvenienced by it, he took off one of his shoes and threw it into the sky, with the order that it should become the moon. Thus, the moon is red, because the shoe of the Mantis was covered with the red dust of the Bushmanland, and*	Black (darkness, eland's gall-bladder), Red (moon, shoe of the Mantis, red dust of Bushmanland)	Practical use, descriptive Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
		cold, because it is only leather.		
Lucy Lloyd notebook BC_151_A2_1_021 3 – 24 June 1872 1432–1499, 1500–1548 **LL.II.2.292–293, LL.II.15–16.1432–1499, 1500–1548**	*The Day-Heart child she is black; old woman very old […]* [1437–1438] …*The Day-Heart child says that old woman very old. Her head is white.* [1438] Various references to 'red flesh' of animals and stars, appears to be descriptive use	*The Stars are divided into night stars and dawn stars... The 'Dawn's Heart' (the star Jupiter) has a daughter, who is identified with some neighbouring star preceding Jupiter (at the time when we asked, it was Regulus or Alpha Leonis). Her name is the 'Dawn's–Heart–child', and her relation to her father is somewhat*	Black (Day-Heart's child), Red (flesh), White (face, limbs)	Practical use, descriptive.

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
	Various references to 'white face', and other body parts that are white, appears to be descriptive use	*mysterious. Besides a short statement of the nature of the Dawn's-Heart and of his child (L II.-2. 292 and 293), we have two long pieces. The first of these begins with a short narrative of only eleven columns, and then gives a very long discourse from the Dawn's–Heart to his daughter, which treats not only of their own history and that of the lynx-mother, but also of the Sun, Moon, and Stars, and of the habits of different animals.*		
Lucy Lloyd notebook BC_151_A2_1_043	*p.3336v: The hare with a red and black tail is also called ≠nabbe.*	The physical description of the hare's tail.	Red, Black (tail of a hare)	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
11 October 1873 (started) **LL.II.37.3336v**				
Lucy Lloyd notebook BC_151_A2_1_052 23 January 1875 (started) 4155 **LV.3.4155v**	*kkóro túrrie !ka the name of a red stone which I showed DH. His mother told him this name for it.* [4155 verso, notes]	*p.4155v: The name of a red stone (told to Dia!kwain by his mother).*	Red (stone)	Practical use, descriptive
Lucy Lloyd notebook BC_151_A2_1_089 August 1878 7272v–7276v 7279, 7380 **LL.VIII.14.7272v–7276v, LL.VIII.14.7275–7276, 7279–7380**	*[…] is that which is black; people say (having mined it with?) anoint their heads with it; while […] is red, and people rub their flesh with it; when they have pounded it, they pound it, pound it, pound it they rub their flesh with it. They pound […]*	*The Bushmen anoint their heads with //hára (which is black and sparkling), mixed with fat, and rub their bodies with ttò. (L VIII.-14. 7272 rev.,-7276 rev., note). Ttò or 'Roode Klip' is dug out from the mountain side. Precautions to be*	Black stone (*//hára*), Red stone (*ttò)*	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
	they anoint their heads, while they have first pounded […] they first rub their flesh with […] And they pound […] they anoint their heads. *//hára and ttò mentioned in original text, but not quoted in translation	*taken against sorcerers upon these occasions. (L VIII.-14. 7275 and 7276, 7279 and 7380). A description of stones called ǁhara and ttò. ǁhara is black and the people pound it together with fat and anoint their heads with it. Ttò is red and is pounded and rubbed onto their flesh.* *An account of how ttò (rooiklip) is obtained: 'When the people collect ttò, they pound it and then anoint themselves with the mixture as protection against the sorcerers at the ttò mine'.*		

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
Lucy Lloyd notebook 22 September 1878 **LL.VIII.19.7639–7642**	*These things (i.e. the dots in the middle go the top line of No. 4) they are these which resemble that which people are? to do to our heads, with ttò. They put dots with the finger of the right hand on our heads, they come to put dots?*	*Remarks concerning copy of *Chipping, No. 4. (L VIII.-19. 7639–7642). The dots resemble those that the people paint onto other people's heads with ttò (rooiklip, or haematite). The objects in figures 3 and 7 (of the same chipping) resemble mat sieves.* *Chipping refers to rock art	Red, (*ttò*), *rooiklip* and haematite	Practical use, descriptive, specifically in reference to rock art
Lucy Lloyd notebook 2 September-October 1873 BC_151_A2_1_041 3193v **LL.II.35.3193v**	*p.3193v: The sun's light used to be white in the day and red at night, like fire.*	Description of the sun's light during the day and night.	White (day), Red (night)	Practical use, descriptive Culmination of time, potential stages of maturation, growth, or evolution

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
Lucy Lloyd notebook Bleek & Lloyd 1871: 294–295 **LL.I.291–294**	*[…] they two are stars which (are) red […]*	*A female Star who is red marries a male Star who is also red, and they have a Star child. This is because they are the Stars.*	Female Star (Red), male Star (Red)	Practical use, descriptive
Lucy Lloyd notebook BC_151_A2_1_089 National Library of South Africa Image: NLLB_D_!n154 24 January 1880 **LL.VIII.14.7272v–7276v, LL.VIII.14.7279–7380**	ǁ*hara, the name of a ground plant, the roots of which are eaten by elephants.*	Also term for the colour black.	Ground plant (Black), also used for stone (Black)	Practical use, descriptive

Collection Reference	Colour Reference	Summary	Colour Attributes	Metaphoric Implications
Iziko South African Museum Image: Iziko_SAMLB_!nBook4_010 **Drawing** 22 June 1881	*Fruit, older and younger (red when ripe).*	Explanation regarding the maturity or ripeness of fruit.	Ripe (Red)	Practical use, descriptive Culmination of time, potential stages of maturation, growth, or evolution

Annexure II. |XAM COLOUR TERMS

RADIANT HUE: EXPLORING THE SIGNIFICANCE OF THE BLACK-WHITE-RED TRIAD IN SOUTHERN AFRICAN SAN ROCK ART

Table 2.|Xam Colour Terms

Colour Term	|Xam Translation	Collection Reference	Intertextual Association
Black	*Thoäka*	LL.VIII.24.8170 LL.VIII.7.6601	also blue
Blue	*Thoäka* *Tkaïnya kau* *||Khoä Thoäka*	LL.VIII.24.8170 LL.VIII.7.6601 LL.VIII.7.6601	also black
White	*!Kúïta*	LL.VIII.24.8170	singular colour term
Red also Red	*!Kiya* *||xaú ki !kiya*	LL.VIII.24.8170v LL.VIII.24.8170v	singular colour term
Yellow	*#kainya*	LL.VIII.24.8170v LL.VIII.7.6601	also green

Colour Term	|Xam Translation	Collection Reference	Intertextual Association
Green	*#kainya*	LL.VIII.24.8170 LL.VIII.7.6601	also yellow
Purple	*Thóken- Thóken*	LL.VIII.7.6601	singular colour term
Grey/Lavender	*!Káken-!kó*	LL.VIII.7.6606	singular colour term
Pinkish brown	*u !Kiya hé* *Tí|ken ē hi* *||Kái ||Kái*	LL.VIII.7.6606	*!Kiya* (red) *u-* (for *-ish*)
Greenish blue Blue Greens Light Blues	*T kainya* *!|ho !|hó ä* *T kainya T koäka*	LL.VIII.7.6606	also, blue- also green
Blackish	*u Tkoäka*	LL.VIII.7.6606	*u-* (for *-ish*)
Bright, light Light, sparkle	*Kiya* *xaiten*	LL.II.18.1669 LL.II.18.1660 LL.VIII.14.7275v	also red

Colour Term	|Xam Translation	Collection Reference	Intertextual Association
Glitters Shimmers	*Ka Kaiten* *Xarrāken(?)*	8805 (rev) LL.VIII.14.7275v	singular colour term
Shining Shine	*Ka Kani* *#xiya*	LL.VIII.16.7384v	singular colour term
Striped	||*Ke* ||*Kètten*	LL.VIII.7.6605v	singular colour term
Checked	|| *Kgim T Khauwa*	LL.VIII.7.6605v	singular colour term
blood	||*xauken*	LL.V.19.5525	singular colour term
also red	||*xauki* ||*xauiki* ||*xaui ki*	LL.VIII.24.8170	spelling variance in archive



Fig. 1A. Kaoxa's Shelter, Machete Game Farm. Photographed by Dr Deborah Sanders, 2014



Fig. 2A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Photographed by Dr Deborah Sanders, 2014



Fig. 3A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Detail. Craggy rock walls at entrance. Photographed by Dr Deborah Sanders, 2014



Fig. 4A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Detail. Shelter overhang showing placement of painted imagery. Photographed by Dr Deborah Sanders, 2014

Kaoxa's Shelter is located on the private Machete Game Farm (MacWhirter) adjacent to the north-western boundary of the Mapungubwe National Park. The Shelter is in the vicinity of the Mapungubwe Cultural Landscape, declared a World Heritage Site in 2003 in recognition of its rich repository of cultural artefacts. The larger region includes areas of north-eastern South Africa, south-eastern Botswana and south-western Zimbabwe and is known as the Limpopo-Shashe confluence area (LSCA). The confluence of these two major rivers is today observed as an expanse of eroded and sandy soil traversed by serene and placid rivers that converge as one against a backdrop of mixed bushveld and mopane scrub. The junction of these three countries, South Africa, Botswana and Zimbabwe, occurs at the meeting of the Shashe river south of the Shashe Dam in Zimbabwe with the Limpopo river flowing from the south-eastern coast of the Indian Ocean. After traversing north-west across Mozambique, the Limpopo continues west as a natural border between South Africa and Zimbabwe, meeting the Shashe flowing from the north and together continuing west until a southern slope eventually spills into the Molatedi Dam south of the Madikwe Nature Reserve. The confluence of these rivers provided fertile ground for large-scale societies to flourish, providing markets and trading centres for goods travelling along ancient trade routes connected via east Africa to the Arabian Peninsula, India and China. San hunter-gatherers, Khoekhoe herders and Iron Age farmers inhabited the region, with the land today remaining rich with archaeological evidence of their presence.

Kaoxa's Shelter is located about three kilometres from the front entrance of the Mapungubwe National Park and can be reached by road. The gate leading to the shelter lies off the main highway and is clearly marked but kept locked. It is accessible by prior arrangement. Once through the gate of the private farm, scattered trees in the bushveld provide shelter for the animals one encounters while following the walking trail leading to the shelter. The research trip to Kaoxa's Shelter in the winter of 2014 took place after a spate of unseasonably heavy rain, which left the terrain thick with bush. The walk from the terraced rest area led across a slight incline lined with massive slabs of rock. The hike was fragrant with the smell of fever berry trees lining the well-trodden path that winds around towering balancing monolithic sandstone rocks.

Close to the shelter, one encounters a pair of monumental rough-hewn boulders at the meeting point where the sandstone ridge envelops a slight crevasse. The shelter opening is accentuated by vertical panels of inward-facing sloped spherical rock walls that recall vaulted archways of Gothic medieval cathedrals, marblesque in texture (**Fig. 1A**). Although the detail of the rock paintings is not visible from a distance, the smooth surface of the exposed sandstone shimmering in the light of the sun invites a closer look. A clearly delineated footpath flanked with well-placed informational text panels prepares the visitor to enter the space (**Fig. 2A**).

Kaoxa's Shelter is cited regularly as a unique site where painted and engraved rock arts occur simultaneously. Three iterations of artistic style can be observed here, from the fine-line tradition traditionally attributed to San hunter-gatherers to the finger painting of the Khoekhoe to the engravings of early Iron Age farmers. In every tradition represented, stylistic rendering distinguishes each sequence, yet all incorporate the physical attributes of the natural environment in a unique way. The triad black-white-red occurs as a polyphonic cacophony of colour. The triad is splendidly displayed in the polychrome imagery and also as a complementary/contrasting element to one colour in the bichrome figures, or as a counterpoint to the hue of a single colour in a monochromatic scheme.

This triad is evident throughout the environs of Kaoxa's Shelter and the surrounding escarpment. The outcrop of rock that juts from the earth's foundation replicates this triad in the water erosion trails (**Figs. 4A, 5A, 6A**). Hues of red, black and white are among the craggy openings and cracks of the rough outer surface of the shelter's overhang and the interior surfaces of polished rock where the paintings are placed. Similar areas of water erosion colouring are present in rock formations across the greater Mapungubwe National Park region (**Figs. 7A, 8A**).



Fig. 5A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Rock wall showing water erosion trail. Photographed by Dr Deborah Sanders, 2014



Fig. 6A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Overhang showing water erosion trail to the right of the painted panel. Photographed by Dr Deborah Sanders, 2014



Fig. 7A. Mapungubwe National Park. Photographed by author, 2014



Fig. 8A. Mapungubwe National Park. Photographed by author, 2014



Fig. 9A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Polychrome giraffe motif and natural undulation of the rock face. Photographed by Dr Deborah Sanders, 2014



Fig. 10A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Animal imagery near natural occurring crack on rock face. Photographed by Dr Deborah Sanders, 2014



Fig. 11A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Top left to bottom right. Rock features including nobular spherical manifestations, undulating rock, stratified lattice across the rock face, and small spherical indentations. Photographed by Dr Deborah Sanders, 2014



Fig. 12A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Sequence showing progression from frontal rock face to inner cavity of shelter showing chronological moving from limited early fine-line tradition to white finger abstractions. Photographed by Dr Deborah Sanders, 2014



Fig. 13A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Linear depiction from southern approach to north end of shelter showing imagery sequence from fine-line tradition to herder finger painting and enigmatic abstractions. Photographed by Dr Deborah Sanders, 2014



Fig. 14A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Sequence progression from frontal rock face to inner cavity of shelter showing chronology from limited early fine-line tradition to white finger abstractions. Photographed by Dr Deborah Sanders, 2014



Fig. 15A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Fine-line painting tradition depiction of giraffe, wildebeest and indeterminate animal. Photographed by Dr Deborah Sanders, 2014

The geological development of the Tshipise Basin, where Kaoxa's Shelter is located in the aeolian Clarens Formation, reveals evidence of episodic water saturation (Bordy 2008: 2). These wetter phases during the Lower Jurassic Clarens Formation of southern Africa may have led to the enigmatic horizontal and undulating surface irregularities and sediment deformations we see today (Bordy 2008: 3–5). Often, polychrome images of animals that are associated with spiritual potency are depicted near such enigmatic irregularities in the rock face (**Fig. 9A**). Perhaps there is a connection between the geological sediment formation and the placement of polychrome imagery. Imagery depicted near these natural occurrences is varied (**Fig. 10A**). While the time period between the development of the Clarens Formation and the likely adaptation of the rock surface for image-making by San hunter-gathers is vast, the exploitation of geological formations wrought by weathering associated with rain is an intriguing aspect of an artistic practice predicated on the harnessing of this natural force.

Another common feature of the shelter's rock surface associated with its geological morphology is the various bioturbation sandstone attributes that are visible, including nodular spherical manifestations, stratified lattice extrusions, circular surface indentations and enigmatic undulations (**Fig. 11A**). While disturbances in the sediment are features of biological design, the spatial reference for the imagery cannot be overlooked as an aspect crucial to compositional placement and interpretation.

While the intriguing geological features of Kaoxa's Shelter present interesting avenues for further investigation, the shelter displays the imagery in an apparently chronological sequence. There are three distinctive styles that move from the southern approach to the shelter to the northern end in what appears to be a linear fashion (**Fig. 12A**). The overlapping imagery also appears to follow a chronological sequence, moving from the earliest fine-line tradition with overlapping imagery in both fine-line and more recent herder finger paintings. While the artistic style appears to move chronologically from the southern approach to the northern end, the overlapping imagery appears to sequence from an older fine-line tradition as the first layer to subsequent layers in fine-line and Khoekhoe herder finger painting, with the final top layer depicted in concentric abstract symbols. Interestingly, as one moves further back into the depths of the cave, the imagery sequence follows fine-line tradition at the outer edge of the rock shelter face, moving further back into the cave where herder finger painting with overlapping geometric abstractions is found (**Fig. 13A**).

As seen in a panel from the first quarter of the southern approach corner (left), the aforementioned sequencing from north to south shows three animals distinctively crafted in the fine-line tradition. As well, it shows the overlapping stratigraphy of imagery with the unidentified buck in a potential amalgamation of late fine-line and early Khoekhoe herder finger painting style in the uppermost level (**Fig. 15A**). It is worth noting that the natural geological variations play a role in the design as the animals interact compositionally with the fracture on the rock face (**Figs. 11A**, **15A**).

Polychrome Imagery

The focus of this study at Kaoxa's Shelter is centred around the polychrome imagery of the San hunter-gatherer fine-line tradition. The majority of the scholarship on this particular Shelter of the Limpopo Province has largely focused on the Khoekhoe herder imagery and its relationship to the initiation rites and rituals of males and females. Kaoxa's Shelter has been designated as significant due to its plethora of animal species and its status as the only known site in southern Africa featuring locust imagery.

There is a lack of scholarship around the fine-line tradition of the San. The fine-line tradition present at this site is overlooked for the more popular sites in the southeastern region, particularly in the uKhahlamba-Drakensberg where the imagery is considered exemplary and of the finest aesthetic quality. The extraordinary examples of polychrome and bichrome imagery at Kaoxa's Shelter are worthy of further study. There are key examples of polychrome fine-line tradition at Kaoxa's Shelter which include a giraffe and buck shown using this study's black-white-red triad, along with two kudu depicted in yellow, black and white (**Fig. 16A**). The triad is easily visible on the giraffe with red and black used as contour and contrasting hues throughout the body of the animal, white serving as accent on the spots, and a layered black centre creating dimension. The triad is more difficult to identify on the buck, as the bichrome red and black is discernible with the white acting as a subtle element of highlight along the ears and slope of the neck. This colouring should not be confused with paint loss and surface irregularities along the black pigment outlining the general shape of the animal. The kudu clearly shows a remarkable modelling of form in yellow and white, with subtle additions of black along the spine and as accent in conjunction with white on the hooves



Fig. 16A. Koaxa's Shelter, Machete Game Farm, Limpopo. Left to right. Polychrome imagery of giraffe, buck and kudu. Photographed by Dr Deborah Sanders, 2014

This study recognises the presence of purposeful and careful detail in the artistic rendering of the polychrome images, with special attention to the representational muscular structure of the animals. Colour is used as a modelling tool for creating dimension and realism. Its secondary purpose may denote possible symbolism of potency.

As the eland holds special spiritual value in the uKhahlamba-Drakensberg, the kudu remains a key



Fig. 17A. Male Kudu, Mapungubwe National Park. Photographed by author, 2014

component of imagery in the Limpopo Province and surrounding region. Kudu are beautiful animals which, based on the skill exemplified by artists of this region, could have been easily represented with their naturally occurring distinctive colouring. The kudu typically have vertical white lines that traverse the grey (males) or reddish brown (females/calves) hind quarters to the black and white contrasting colour of their undercoat (**Fig. 17A**). An extraordinary metaphoric device has been employed in the incorporation of the distinct patterning of the ear cavity of the kudu, conveying the black-white-red triad. The painted detail in the imagery may be an analogy for the kudu's acute sense of hearing and sensitivity to the slightest vibration. This design might indicate a symbolic reference.

One of the most intriguing aspects of the polychrome imagery at Kaoxa's Shelter are the locusts. At first glance these insects seem to blend in with the natural colouring of the rock face. The diminutive nature of these works requires careful inspection which reveals intricate rendering of detail and varying hues that produce balance and contrast. There are three locusts located at the corner of the southern approach to the rock shelter (**Figs. 18A, 19A, 20A**). Rendered in a vertical line along the rock face, the locusts are

placed one on top of the other and are a small sampling of the total 13 depictions in the shelter. While the style of the imagery is clearly from the earliest fine-line tradition, the locusts appear monochromatic at first glance. Instead, they are bichrome images, potentially polychromatic once there is a distinction between white paint and potential flaking/loss has been established. It is important to continue investigating the symbolism of San cosmology in reference to the locust, particularly the connection with the tale of an isolated female initiate throwing the locust into the heavens which turn into stars.



Fig. 18A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Red locust imagery near water erosion trail with yellow detail at back tip of thorax and possible white accent along body. Photographed by Dr Deborah Sanders, 2014



Fig. 19A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Red locust imagery with yellow detail along the back of head, legs and stigmata banding on the abdomen. Photographed by Dr Deborah Sanders, 2014

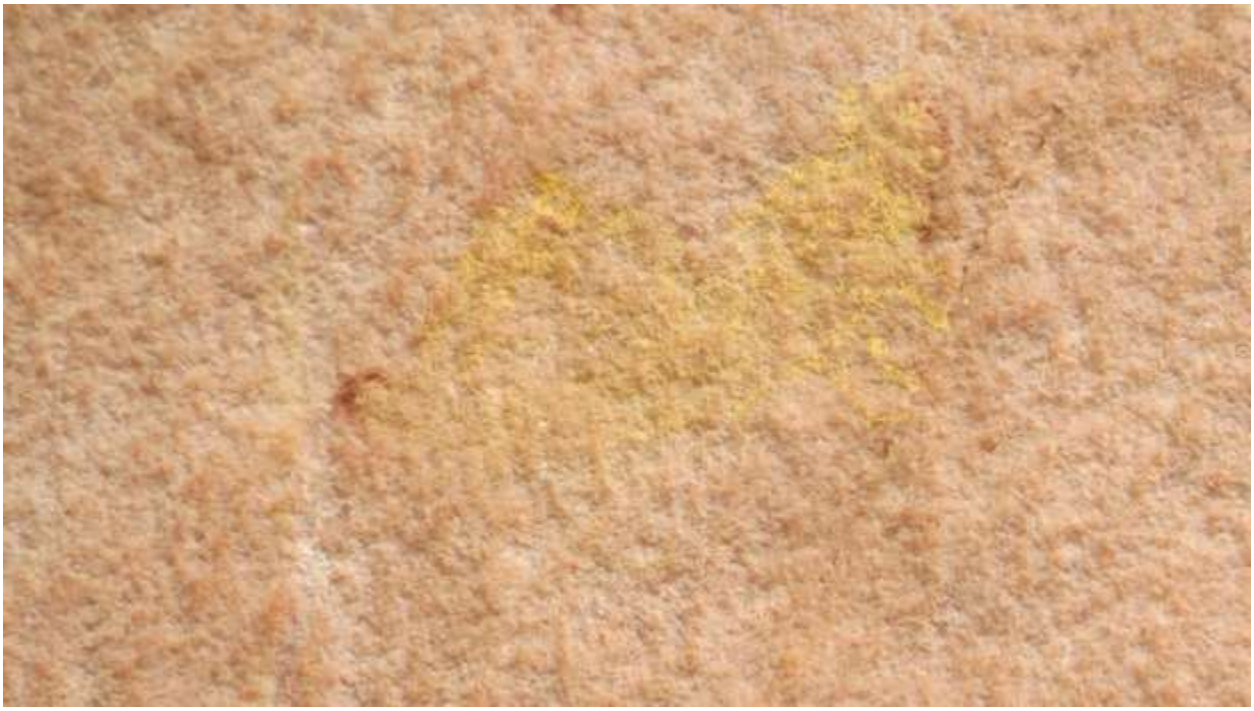


Fig. 20A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Yellow locust showing red frontal detail and outline along back of thorax. Photographed by Dr Deborah Sanders, 2014

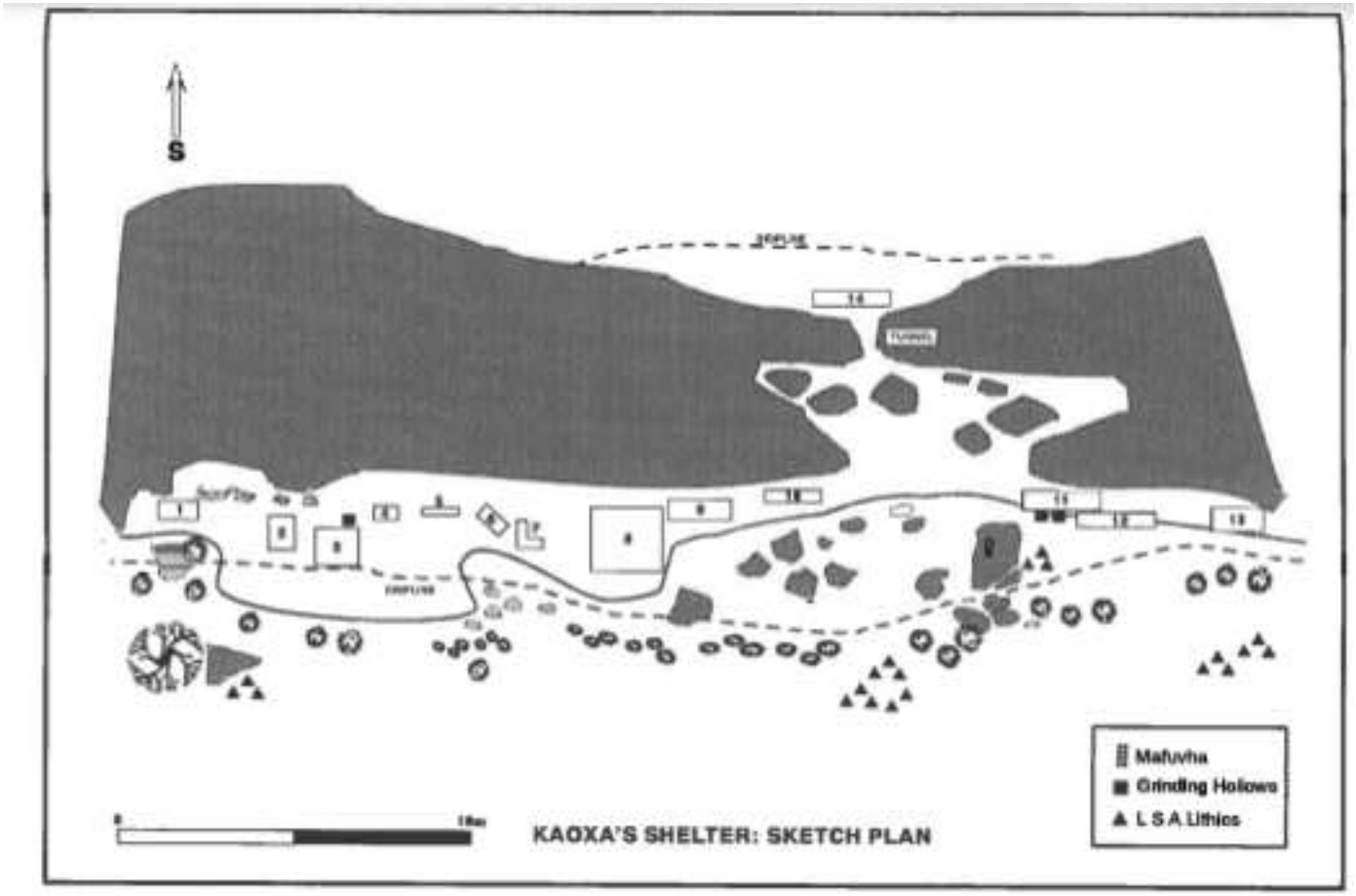


Fig. 21A. Kaoxa's Shelter, Machete Game Farm, Limpopo. Sketch plan (Eastwood et al. 1998).



Fig. 22A. *Kaoxa's Shelter* (schematic), Adéle Prins, Mixed media, 2016.



Fig. 23A. *Kaoxa's Shelter*, Adéle Prins, Mixed media, 2016.

REFERENCES

Albers, J. 1963. Interaction of color. New Haven, CT, and London, United Kingdom: Yale University Press.

Albers, J. 1964. *Josef Albers: Homage to the square*. New York, Museum of Modern Art.

Alberti, B. & Bray, T. 2009. Animating archaeology: Of subjects, objects and alternative Ontologies. *Cambridge Archaeological Journal* 19(3): 337–343.

Alexander, J.E. 1837. *Narrative of a voyage of observation among the colonies of western Africa, in the flag-ship Thalia; and of a campaign in Kaffir-land, on the staff of the commander in chief, in 1835*. London: Henry Colburn.

Anderson, A.A. 1884. Notes on the geography of south-central Africa, in explanation of a new map of the region. *Proceedings of the Royal Geographical Society* (6): 19–36.

Anderson, A.A. 1887. *Terra, on a hitherto unsuspected second axial rotation of our Earth*. London: Reeves and Turner.

Anderson, A. A. 1888. *Twenty-five years in a wagon: sport and travel in South Africa*. London: Chapman and Hall.

Anderson, E.P. 2003. *Folk-taxonomies in Early English*. Madison, WI.: Fairleigh Dickinson University Press, and London: Associated University Presses.

Anderson, C., Dunlop, A., & Smith, P.H. (eds) 2015. *The matter of art: Materials, practices, cultural logics C. 1250-1750*. Manchester, UK: Manchester University Press.

Appiah, A., & Gates Jr., H. L. (eds.) 2010. *Encyclopedia of Africa* (Vol. 3). Oxford: Oxford University Press.

Aristotle, P. 1911. *The basic works of Aristotle, ed. Richard McKeon*. Transl. Ingram Bywater. New York: Random House, 1941 (1459).

Arnheim, R. 1974. *Art and visual perception: A psychology of the creative eye*. Berkeley: University of California Press.

Arp, H.C. 1958. The Hertzsprung-Russell diagram. *Astrophysics II: Stellar structure/ strophysik II: Sternaufbau*. Berlin: Springer, 75–133.

Arsenault, D., 2004. From natural settings to spiritual places in the Algonkian sacred landscape: An archaeological, ethnohistorical and ethnographic analysis of the Canadian Shield rock art sites, in C. Chippindale & G. Nash (eds), *The figured landscapes of rock-art: Looking at pictures in place*. Cambridge: Cambridge University Press, 218–317.

Attas, M., Cloutis, E., Collins, C., Goltz, D., Majzels, C., Mansfield, J.R., & Mantsch, H.H. 2003. Near-infrared spectroscopic imaging in art conservation: Investigation of drawing constituents. *Journal of Cultural Heritage* 4(2): 127–136.

Back Danielsson, I.M., Fahlander, F. & Sjöstrand, Y. 2012. 'Imagery beyond representation', in I.M. Back Danielsson, F. Fahlander, & Y. Sjöberg (eds), *Encountering imagery: Materialities, perceptions, relations*. Stockholm: Stockholm University. 1–12.

Bahn, P., & Bahn, P.G. 1998. *The Cambridge illustrated history of prehistoric art*. Cambridge: Cambridge University Press.

Bahn, P.G. 2003. Location, location: What can the positioning of cave and rock art reveal about Ice Age motivations. In: A. Pastoors & G.C. Weniger (eds), *Cave art and space: Archaeological and architectural perspectives*. Wissenschaftliche Schriften des Neanderthal Museums: Mettmann, 11–20.

Barber, K. 1991. *I could speak until tomorrow: Oriki, women, and the past in a Yoruba town*. Edinburgh: Edinburgh University Press.

Barber, K. 1999. Obscurity and exegesis in African oral praise poetry. In: D. Brown (ed), *Oral literature and performance in Southern Africa*. Athens: Ohio University Press, 27–49.

Barnard, A. 1992. *Hunters and herders of southern Africa: A comparative ethnography of the Khoisan peoples*. Cambridge: Cambridge University Press.

Barnett, J.R., Miller, S., & Pearce, E. 2006. Colour and art: A brief history of pigments. *Optics & Laser Technology* 38(4): 445–453.

Barrett, E., & Bolt, B. 2013. *Carnal knowledge: towards a 'new materialism' through the arts*. London, United Kingdon: I. B. Tauris.

Barrett, S. & Stulik, D. 1995. An integrated approach for the study of paintings. In: A. Wallert, E. Hermens, & M. Peek (eds), *Historical painting techniques, materials, and studio practice*. Preprints of a symposium held at the University of Leiden, The Netherlands, 26–29 June, 1995. Marina Del Rey, CA.: Getty Conservation Institute.

Bassett, S.T. 2015. A rock art jewel. *AG Africa Geographic*, https://africageographic.com/stories/rock-art-busman-painting-drakensberg-south-africa/

Batchelor, D. 2000. *Chromophobia*. London: Reaktion Books.

Baumgarten, A.G. 1986. *Aesthetica* (1750). Hildesheim: Olms.

Berlin, B., & Kay, P. 1969. *Basic colour terms: Their universality and evolution*. Berkeley: University of California Press.

Berlin, B., Maffi, L., Merrifield, W.R., & Cook, R. 2009. *The world colour survey*. Stanford, CA.: CSLI Publications.

Bernatchez, J.A. 2008. Geochemical characterization of archaeological ochre at Nelson Bay Cave (Western Cape Province), South Africa. *The South African Archaeological Bulletin*, 3–11.

Berndt, R.M., & Berndt, C.H. 1992. *The world of the first Australians: Aboriginal traditional life, past and present*. Canberra: Aboriginal Studies Press.

Biesele, M.A. 1975. *Folklore and ritual of Kung hunter-gatherers*. Doctoral dissertation. Harvard University.

Biesele, M. 1978. Sapience and scarce resources: Communication systems of the !Kung and other foragers. *Social Science Information* 17(6): 921–947.

Biesele, M. 1980. 'Old K"xau'. In: J. Halifax (ed), *Shamanic voices: A survey of visionary narratives*. Harmondsworth: Penguin, 54–62.

Biesele, M. 1993. *Women like meat: The folklore and foraging ideology of the Kalahari Ju/'hoan*. Johannesburg: Wits University Press.

Blackmun, B., & Schoffeleers, M. 1972. Masks of Malawi. *African Arts* 5(4): 36–88.

Bleek, W.H.I., & Lloyd, L.C. 1879. *Lucy Lloyd |Xam notebooks*. *The digital Bleek and Lloyd*. Book VIII-31, 8752–8753. Retrieved from http://lloydbleekcollection.cs.uct.ac.za.

Bleek, W.H.I., & Lloyd, L.C. 1911. *Specimens of Bushman folklore*. London: George Allen.

Bleek, D.F. 1923. *The mantis and his friends: Bushman folklore*. Cape Town: Maskew Miller.

Bleek, D.F. 1929. Bushman folklore. *Africa: Journal of the International African Institute* 2(3): 302–313.

Bleek, D.F. 1933. Customs and beliefs of the |Xam Bushmen. Part Five: The Rain. *Bantu Studies* 7(3): 297–312.

Bleek, D.F. 1935. Beliefs and customs of the |Xam Bushmen: From material collected by Dr. W.H.I. Bleek and Miss L.C. Lloyd between 1870 and 1880. *Bantu Studies* 9(1): 1–47.

Bleek, D.F. 1956. Bushman dictionary. New Haven: American Oriental Society.

Blundell, G. 2001. *African rock art of the southern zone*. *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art.

Blundell, G., & Eastwood, E.B. 2001. Identifying Y-shape motifs in the San rock art of the Limpopo-Shashi confluence area, southern Africa: New painted and ethnographic evidence: research in action. *South African Journal of Science* 97(7–8): 305–308.

Blundell, G., Chippindale, C., & Smith, B. (eds). 2016. *Seeing and knowing: Understanding rock art with and without ethnography*. Johannesburg: Wits University Press.

Bonneau, A., Brock, F., Higham, T., Pearce, D.G., & Pollard, A.M. 2011. An improved pretreatment protocol for radiocarbon dating black pigments in San rock art. *Radiocarbon* 53(3): 419–428.

Bolt, B. 2004. *Art beyond representation: The performative power of the image*. London: I.B. Tauris.

Bonneau, A., Pearce, D.G., & Pollard, A.M. 2012. A multi-technique characterization and provenance study of the pigments used in San rock art, South Africa. *Journal of Archaeological Science* 39(2): 287–294.

Bordy, E.M. 2008. Enigmatic trace fossils from the aeolian lower Jurassic Clarens Formation, Southern Africa. *Palaeontologia Electronica* 11: 16a–16p.

Brenzinger, M. 2015. *The* ǀ*Xam term* ǀ*kȁïnya becomes the colour term "green": negotiation of meanings over 79 years*. Conference paper. Managing and promoting special collections Africa: The Bleek-Lloyd collection and beyond, University of Cape Town, Abstract.

Brunton, S., Badenhorst, S., & Schoeman, M.H. 2013. Ritual fauna from Ratho Kroonkop: A second millennium AD rain control site in the Shashe-Limpopo confluence area of South Africa. *Azania: Archaeological Research in Africa* 48(1): 111–132.

Burwick, F. 1986. *The damnation of Newton: Goethe's colour theory and romantic perception*. Berlin: Walter de Gruyter.

Chazan, M., Berna, F., Horwitz, L.K., Morris, D., & Watts, I. 2016. The emergence of art and language: A perspective from the deep history of Wonderwerk Cave. Conference paper. The Pasts and Presence of Art in South Africa: Technologies, Ontologies and Agents, University of Cambridge Centre of African Studies, 27–29.

Chippindale, C., & Taçon, P. S. (eds). 1998. *The archaeology of rock-art*. Cambridge: Cambridge University Press.

Choe, J. C. 2019. *Encyclopedia of animal behavior*. London: Academic Press.

Clottes, J., Menu, M., & Walter, P. 1990. La préparation des peintures magdaléniennes des caverns Ariégoises. *Bulletin de la Société Française* 90: 426–432.

Clottes, J. 1997. Art of the light and art of the depths. In: M. Conkey, O. Soffer, D. Stratmann, & N. Jablonski (eds), *Beyond art: Pleistocene image and symbol*. Berkeley, California: University of California Press, 203–216.

Cole, N. 2005. Review of colouring the past: The significance of colour in archaeological research. *Australian Archaeological Association* 60: 76–78.

Coote, J. 1992. Marvels of everyday vision: the anthropology of aesthetics and the cattle keeping Nilotes. In: J. Coote & A. Shelton (eds*), Anthropology, art and aesthetics*. Claredone Press, 245-273.

Coote, J., & Shelton, A. (eds). 1992. *Anthropology, art, and aesthetics*. Oxford University Press.

Cowling, R.M., Richardson, D.M., & Pierce, S.M. (eds). 2004. *Vegetation of southern Africa*. Cambridge: Cambridge University Press.

Cunningham, A.B., & Davis, G.W. 1997. Human use of plants. In: R.M. Cowling, D.M. Richardson, & S. M. Pierce (eds), *Vegetation of Southern Africa*. Cambridge: Cambridge University Press, 477–501.

D'Alleva, A. 2005. *Methods and theories of art history*. London: Laurence King.

Dabrowski, M. 1995. Kandinsky compositions: The music of the spheres. *MoMA* (19): 10–13.

Danto, A.C. 1981. *The transfiguration of the commonplace: A philosophy of art*. Harvard University Press.

David, B., Clayton, E., & Watchman, A. 1993. Initial results of PIXE analysis on northern Australian ochres. *Australian Archaeology* 36(1): 50–57.

Davis, W. 1985. Present and future directions in the study of rock art. *The South African Archaeological Bulletin* 40(141): 5–10.

Davis, W. 1990. The study of rock art in Africa. In: P.T. Robertshaw (ed), *A History of African Archaeology*. London: J. Currey, 271–295.

Davis, W. 1996. The deconstruction of intentionality in archaeology. In: W. Davis, *Replications: Archaeology, art history and psychoanalysis*. Pennsylvania: Pennsylvania State University Press, 114–116.

Day, J. (ed). 2013. *Making senses of the past: toward a sensory archaeology*, SIU Press.

Deacon, J. 1986. 'My place is the Bitterpits': The home territory of Bleek and Lloyd's |Xam San informants. *African Studies* 45(2): 135–155.

Deacon, J., & Foster, C. 2005. *My heart stands in the hill*. Cape Town: Struik.

Deacon, J., & Mazel, A. 2010. uKhahlamba Drakensberg and Mapungubwe: Contrasts in South Africa's World Heritage rock art sites. *Adoranten*, 5–23.

Del Chamberlain, V. 1996. The sky is an ethnographic treasure trove. *Archaeoastronomy* 12: 1–24.

Derrida, J. 1976. *Of grammatology*. Transl. G.C. Spivak. Baltimore: Johns Hopkins University Press.

Dictionary, O.E. 2018. art n. 1, *OED Online*. Oxford, U.K.: Oxford University Press.

Dolgin, J.L., Kemnitzer, D.S., & Schneider, D.M. 1977. *Symbolic anthropology: A reader in the study of symbols and meanings*. New York: Columbia University Press.

Dowson, T.A. 1988. Revelations of religious reality: The individual in San rock art. *World Archaeology* 20(1): 116–128.

Dowson, T. A. 1994. Reading art, writing history: Rock art and social change in southern Africa. *World Archaeology* 25(3): 332–345.

Dowson, T.A. 1998. Rain in Bushman belief, politics and history: The rock art of rain-making in the south-eastern mountains, southern Africa. In: C. Chippindale & P.S. Taçon (eds), *The archaeology of rock-art*. Cambridge: Cambridge University Press, 73–89.

Dowson, T.A. 2007. Debating shamanism in southern African rock art: Time to move on... *The South African Archaeological Bulletin* 62(185): 49–61.

Drewal, H.J. 1997. Art or accident: Yoruba body artists and their deity Ogun. In: S.T. Barnes (ed), *Africa's Ogun: Old world and new*. Bloomington & Indianapolis: Indiana University Press, 235–260.

Duckworth, C. 2009. Color, perception and value: New perspectives on early glass. Conference paper. Theoretical Archaeology Group. The Color of Things: Debating the Role and Future of Color in Archaeology. Stanford University, CA., 1–3 May tag-usa.org.

Dubow, S. 2006. *A commonwealth of knowledge: Science, sensibility, and white South Africa*. Oxford: Oxford University Press.

Duffey, A. 2002. Pierneef and San rock art. *de arte* 37(66) 20–41.

Eaton, N. 2013. *Colour, art and empire: Visual culture and the nomadism of representation*. London: IB Tauris.

Eastwood, E.B. 1997. Further Comments on Mpato Shelter, south-western Zimbabwe, and the use of green/blue pigments. *The Digging Stick* 14(1): 5–6.

Eastwood, E.B. 1999. Red lines and arrows: Attributes of supernatural potency in San rock art of the Northern Province, South Africa, and south-western Zimbabwe. *The South African Archaeological Bulletin* 54(169): 16–27.

Eastwood, E.B. 2003. A cross-cultural motif in San, Khoekhoe and Northern Sotho rock paintings of the central Limpopo Basin, southern Africa. *The South African Archaeological Bulletin* 58(177): 14–26.

Eastwood, E. 2005. From girls to women: Female imagery in the San rock paintings of the central Limpopo Basin, southern Africa. *Before Farming: The Archaeology and Anthropology of Hunter-Gatherers* 2005(3): 1–25.

Eastwood, E.B., Cnoops, C., Ramudzuli, R., Chauke, T., & Motsumi, O. 1998. The rock paintings of Machete: A field guide, The Limpopo-Shashi Training Project-Palaeo-Art Field Services. University of Venda and University of Botswana. Unpublished.

Eastwood, E.B., & Cnoops, C. 1999. Capturing the spoor: Towards explaining kudu in San rock art of the Limpopo-Shashi confluence area. *The South African Archaeological Bulletin* 54(170): 107–119.

Eastwood, E.B., & Blundell, G. 1999. Re-discovering the rock art of the Limpopo-Shashi confluence area, southern Africa. *Southern African Field Archaeology* 8(1): 17–27.

Eastwood, E.B., Ouzman, S., & MacWhirter, D. 2000. Kaoxa's Shelter. The first public rock art site in the Limpopo-Shashi confluence area of South Africa. *The Digging Stick* 7(1): 1–6.

Eastwood, E.B., & Eastwood, C. 2006. *Capturing the spoor: An exploration of southern African rock art*. Claremont, Cape Town: New Africa Books, Ltd.

Eliade, M. 1972. *Shamanism: Archaic techniques of ecstasy*. New York: Routledge.

Elkins, J. 1999. *The Domain of Images*. New York: Cornell University Press.

Ellenberger, V. 1953. *La fin tragique des Bushmen: les derniers hommes vivants de l'âge de la pierre*. Paris: Amiot Dumont.

England, N.M. 1968. *Music Among the Ǯũ'wa-si of South West Africa and Botswana*. Doctoral dissertation. Harvard University.

Erlandson, J.M., Robertson, J.D., & Descantes, C. 1999. Geochemical analysis of eight red ochres from western North America. *American Antiquity* 64(3): 517–526.

d'Errico, F., Henshilwood, C., Vanhaeren, M., & Van Niekerk, K. 2005. Nassarius kraussianus shell beads from Blombos Cave: Evidence for symbolic behaviour in the Middle Stone Age. *Journal of Human Evolution* 48(1): 3–24.

Fahlander, F. 2012. Articulating stone. The material practice of petroglyphing. In: I.M. Back Danielsson, F. Fahlander, & Y. Sjöberg (eds), *Encountering Imagery: Materialities, Perceptions, Relations*. Stockholm: Stockholm University 97–116.

Fichner-Rathus, L. 2011. *Foundations of art and design: An enhanced media edition*. Farmington Hills, MI.: Cengage Learning.

Forsey, J. 2004. Metaphor and Symbol in the interpretation of art. In *Symposium* (8)3: 573–586.

Fourie, L. 1926. Preliminary notes on certain customs of the Hei-//om Bushmen. *Journal of the South West Africa Scientific Society* 1: 49–63.

Frank, P. 2009. *Prebles' artforms: An introduction to the visual arts*. New Jersey: Prentice Hall.

Frank, P. 2011. *Prebles' artforms: An introduction to the visual arts*. New Jersey: Prentice Hall.

Frank, P. 2014. *Prebles' artforms: An introduction to the visual arts*. New Jersey: Prentice Hall.

Frichot, H. Gabrielsson, C. and Metzger (eds). 2016. *Deleuze and the City*. Edinburgh University Press.

Gage, J. 1990. Colour in western art: An issue? *The Art Bulletin* 72(4): 518–541.

Gage, J. 1995. Colour and culture. In: T. Lamb & J. Bourriau (eds), *Colour: Art and science*. Cambridge: Cambridge University Press, 175–193.

Gage, J. 1999. *Colour and meaning: Art, science, and symbolism*. Berkeley: University of California Press.

Gage, J. 1999. What meaning had colour in early societies? *Cambridge Archaeological Journal* 9(1): 109–126.

Garlake, P. 1995. *The hunter's vision: The prehistoric art of Zimbabwe*. London: British Museum Press.

Gates Jr., H.L. 2014 (1988). *The signifying monkey: A theory of African American literary criticism*. New York: Oxford University Press.

Geiger, L. 1880. *Contributions to the History of the Development of the Human Race*, vol. 12. Trübner & Company.

Gell, A. 1992. The technology of enchantment and the enchantment of technology. In: J. Coote & A. Shelton (eds), *Anthropology, art and aesthetics*. Oxford: Oxford University Press, 40–63.

Gell, A. 1998. *Art and agency: An anthropological theory*. Oxford: Clarendon Press.

Gemtou, E. 2010. Subjectivity in art history and art criticism. *RUPKATHA: Journal on Interdisciplinary Studies in Humanities* 2(1): 2–13.

Gheorghiu, D. 2012. Metaphors and allegories as augmented reality: The use of art to evoke material and immaterial subjects. In: I.M. Back Danielsson, F. Fahlander, & Y. Sjöberg (eds), Encountering imagery: Materialities, perceptions, relations. *Stockholm studies in archaeology* 57: 177–86.

Gibbs Jr., R.W. (ed). 2008. *The Cambridge handbook of metaphor and thought*. Cambridge: Cambridge University Press.

Gibson, A. 1981. Regression and color in abstract expressionism: Barnett Newman, Mark Rothko and Clyfford Still. *Arts Magazine* 55(7): 144–153.

Gilbert-Rolfe, J. 1981. Color as metaphor. *RES: Anthropology and Aesthetics* 2(1): 104–106.

Gladstone, W.E. 1858. Homer's perception and use of colour. *Studies on Homer and the Homeric Age* 3: 458–499.

Goldhahn, J. 2010. Emplacement and the hau of rock art. In: J. Goldhahn, I. Fuglestvedt, & A. Jones (eds), *Changing Pictures: rock art traditions and visions in northern Europe*. Oxbow Books: Oxford, 106 126.

Goldhahn, J., Fuglestvedt, I. & Jones, A. (eds). 2010. *Changing Pictures: Rock art traditions and visions in northern Europe*. Oxbow Books: Oxford.

Golson, J. 1984. *Kuk and the development of agriculture in New Guinea: Retrospection and introspection*. Department of Prehistory, Canberra: Australian National University.

Grewers, R., Booth, C., & Chauke, A. 2008. Rock art site management plan, Kaoxa's Shelter-Machete: Mapungubwe National Park and World Heritage Site 2009-2014. South Africa: South African National Parks, Retrieved from sahra.org.za.

Griaule, M., & Sougez, E. 1950. *Arts of the African native*. London: Thames & Hudson.

Guenther, M. 1989. Bushman folktales: Oral traditions of the Nharo of Botswana and the |Xam of the Cape. *Studien zur Kulturkunde* 93: 1–166.

Halifax, J. 1991 (1976). *Shamanic voices: A survey of visionary narratives*. New York: Arkana.

Halkett, D. J. 1982. *From Doorn to dusk: Spatial patterning of archaeological sites in a kloof*. Doctoral dissertation. University of Cape Town.

Hall, K., Meiklejohn, I., Arocena, J., Prinsloo, L., Sumner, P., & Hall, L. 2007a. Deterioration of San rock art: new findings, new challenges. *South African Journal of Science* 103(9–10): 361–362.

Hall, K.J., Meiklejohn, I., Arocena, J. 2007b. The thermal responses of rock art pigments: implications for rock art weathering in southern Africa. *Geomorphology* 91: 132–145.

Halverson, J., Abrahamian, L.H., Adams, K.M., Bahn, P.G., Black, L.T., Davis, W., & Maynard, P. 1987. Art for art's sake in the Paleolithic [and Comments and Reply]. *Current Anthropology* 28(1): 63–89.

Hamilakis, Y. 2014. *Archaeology and the senses: human experience, memory, and affect*. Cambridge University Press.

Hampson, J.G. 2010. Rock art regionalism, identity, and heritage: Case studies from the Texas Trans Pecos and South Africa. *La Pintura* 36(3): 4–9.

Hampson, J.G. 2011. Rock art regionalism and identity: Case studies from Trans-Pecos Texas and Mpumalanga Province, South Africa, Azania. *Archaeological Research in Africa* 46(3): 389–389.

Hampson, J.G. 2013. The materiality of rock art and quartz: A case study from Mpumalanga Province, South Africa. *Cambridge Archaeological Journal* 23(3): 363–372.

Hampson, J.G. 2016. *Rock art and regional identity: A comparative perspective*. New York: Routledge.

Hampson, J., Challis, W., Blundell, G., & De Rosner, C. 2002. The rock art of Bongani Mountain Lodge and its environs, Mpumalanga Province, South Africa: An introduction to problems of southern African rock-art regions. *The South African Archaeological Bulletin* 57(175): 15–30.

Hardin, C.L., & Maffi, L. (eds). 1997. *Colour categories in thought and language*. Cambridge: Cambridge University Press.

Harris, E.C. 1975. The stratigraphic sequence: A question of time. *World Archaeology* 7(1): 109–121.

Harris, E.C. 1979. The laws of archaeological stratigraphy. *World Archaeology* 11(1): 111–117.

Hausman, C.R. 1989. *Metaphor and art: Interactionism and reference in the verbal and nonverbal arts*. Cambridge: CUP Archive.

Hayden, M.H. 2016. Radiant hue: Exploring the significance of the black-white-red triad in San rock art at Kaoxa's Shelter, South Africa. Poster presentation. 23rd Biennial Meeting of the Society of Africanist Archaeologists, Toulouse, France, 27 June–2 July 2016.

Hayden, M.H. 2020. A discourse on colour: assessing aesethetic patterns in the 'swift people' panel at Ezeljagdspoort, Western Cape, South Africa. In: C. Wingfield, J. Giblin & R. King (eds), *The pasts and presence of art in South Africa: Technologies, ontologies and agents*. Cambridge: McDonald Institute for Archaeological Research. University of Cambridge Press, pp 127-139.

Heidegger, M. 1993. *Martin Heidegger: Basic writings from Being and Time (1927) to The Task of Thinking (1964)*. San Francisco: Harper.

Helskog, K., 1999. The shore connection: Cognitive landscape and communication with rock carvings in northernmost Europe. *Norwegian Archaeological Review* 32: 29–63.

Henare, A., Holbraad, M., & Wastell, S. (eds). 2007. *Thinking through things: theorizing artefacts ethnographically*. Routledge: London, 1–31.

Henshilwood, C.S., d'Errico, F., Yates, R., Jacobs, Z., Tribolo, C., Duller, G.A., Mercier, N., Sealy, J., Valladas, H., Watts, I., & Wintle, A.G. 2002. Emergence of modern human behaviour: Middle Stone Age engravings from South Africa. *Science* 295(5558): 1278–1280.

Henshilwood, C.S., & Dubreuil, B. 2009. Reading the artifacts: Gleaning language skills from the Middle Stone Age in southern Africa. In R Botha & C Knight (eds), *The Cradle of Language*. Oxford: Oxford University Press, 44–60.

Henshilwood, C.S., & d'Errico, F. 2011. Middle Stone Age engravings and their significance to the debate on the emergence of symbolic material culture. In: C.S. Henshilwood & F. d'Errico (eds), *Homo symbolicus: The dawn of language, imagination and spirituality*. Amsterdam: John Benjamins, 75–96.

Henshilwood, C.S., d'Errico, F., Van Niekerk, K.L., Coquinot, Y., Jacobs, Z., Lauritzen, S.E., Menu, M., & García-Moreno, R. 2011. A 100,000-year-old ochre-processing workshop at Blombos Cave, South Africa. *Science* 334(6053): 219–222.

Henshilwood, C.S., d'Errico, F., Van Niekerk, K.L., Dayet, L., Queffelec, A., & Pollarolo, L. 2018. An abstract drawing from the 73,000-year-old levels at Blombos Cave, South Africa. *Nature* 562 (7725): 115–118.

Heyd, T. 1999. Rock art aesthetics: Trace on rock, mark of spirit, window on land. *The Journal of Aesthetics and Art Criticism* 57(4): 451–458.

Heyd, T., & Clegg, J. 2004. *Re-thinking aesthetics and rock art*, Unpublished paper presented to the Rock Art Society of India, International Rock Art Congress, Agra, 28 November to 2 December 2004.

Heyd, T., & Clegg, J. (eds). 2005. *Aesthetics and rock art*. Aldershot: Ashgate.

Hodgskiss, T., & Wadley, L. 2017. How people used ochre at Rose Cottage Cave, South Africa: Sixty thousand years of evidence from the Middle Stone Age. *PloS one* 12(4): 1.

Hollmann, J. 1993. Preliminary report on the Koebee rock paintings, western Cape Province, South Africa. *The South African Archaeological Bulletin* 16-25.

Hollmann, J.C. (ed). 2004. *Customs and beliefs of the |Xam Bushmen*. Johannesburg: Wits University Press.

Hollmann, J.C. 2005a. Swift-people: Therianthropes and bird symbolism in hunter-gatherer rock-paintings, Western and Eastern Cape provinces, South Africa. *South African Archaeological Society Goodwin Series* 9: 21–33.

Hollmann, J.C. 2005b. Using behavioural postures and morphology to identify hunter-gatherer rock paintings of therianthropes in the Western and Eastern Cape provinces, South Africa. *The South African Archaeological Bulletin* 60(182): 84–95.

Hollmann, J.C. & Crause, K. 2011. Digital imaging and the revelation of 'hidden' rock art: Vaalekop Shelter, KwaZulu-Natal. *Southern African Humanities* 23: 55–76.

Hollmann, J.C. 2013. Exploring the Gestoptefontein-Driekuil complex (GDC): an ancient women's ceremonial centre in North West Province, South Africa. *South African Archaeological Bulletin* 68(198): 146.

Hollmann, J.C. 2014. 'Geometric'motifs in Khoe-San rock art: depictions of designs, decorations and ornaments in the Gestoptefontein-Driekuil Complex, South Africa. *Journal of African Archaeology* 12(1): 25–42.

Hovers, E., Ilani, S., Vandermeersch, B., Barham, L., BelferCohen, A., Klein, R., Knight, C., Power, C., Watts, I., McBrearty, S. and Marshack, A. 2003. An early case of color symbolism: ochre use by modern humans in Qafzeh Cave. *Current Anthropology* 44(4): 491–522.

How, M.W. 1962. *The mountain Bushmen of Basutoland*. Pretoria: J.L. van Schaik.

Ingold, T. 2013. *Making: Anthropology, archaeology, art and architecture*. Routledge.

Jacobson-Widding, A. 1979. *Red-White-Black as a mode of thought: A study of triadic classification by colours in the ritual symbolism and cognitive thought of the peoples of the Lower Congo*. Uppsala: Acta Universitatis Upsaliensis.

Janson, H.W. 1974. *History of art*. London: Thames and Hudson.

Janson, H.W. 2010. *Janson's history of art: The western tradition*. London: Pearson.

Johnson, M. (ed). 1981. *Philosophical perspectives on metaphor*. Minneapolis: University of Minnesota Press.

Jolly, P. 1986. A first-generation descendant of the Transkei San. *The South African Archaeological Bulletin* 41(143): 6–9.

Jones, A., & MacGregor, G. 2002. *Colouring the past: the significance of colour in archaeological research*. Berg.

Jones, A.M., & Alberti, B. 2013. Archaeology after interpretation. In: A. Benjamin, A. Meirion Jones, & J. Pollard (eds), *Archaeology After interpretation: Returning materials to archaeological theory*. New York: Routledge, 15–35.

Jones, A.M., & Cochrane, A. 2018. *The archaeology of art: Materials, practices, affects*. Routledge.

Kahan, L., Page, D., & Imperato, P.J. (eds). 2009. *Surfaces: Colour, substances, and ritual applications on African sculpture*. Indianapolis, Indiana University Press.

Katsarou-Tzeveleki, S. 2009. Colorful images of the Greek Neolithic. Conference paper, Theoretical Archaeology Group, The Color of Things: Debating the Role and Future of Color in Archaeology, Stanford University, CA., 1–3.

Kandinsky, W. 1913. *Rückblicke, Kandinsky 1901-1913*. Kandinsky Complete Writings on Art, 355–382.

Kandinsky, W. 1913. *Kandinsky 1901-1913*. Berlin: Der Sturm.

Kant, I. 2001. *Critique of the power of judgment*. Cambridge: Cambridge University Press.

Katz, R. 1982 Boiling energy: *Community healing among the Kalahari !Kung*. Cambridge MA.: Harvard University Press.

Katz, R., Biesele, M., & Denis, V.S. 1997. Healing makes our hearts happy: *Spirituality and cultural transformation among the Kalahari Ju|'hoansi*. Rochester, Vermont: Inner Traditions.

Kay, P., & McDaniel, C.K. 1978. The linguistic significance of the meanings of basic colour terms. *Language* 54: 610–646.

Kay, P., & Kempton, W. 1984. What is the Sapir-Whorf hypothesis? *American Anthropologist* 86(1): 65–79.

Kay, P., Berlin, B., & Merrifield, W. 1991. Biocultural implications of systems of colour naming. *Journal of Linguistic Anthropology* 1(1): 12–25.

Kearney, R. 2007. Paul Ricoeur and the Hermeneutics of Translation. *Research in Phenomenology* 37(2): 147–159.

Keeney, B.P. (ed). 1999. *Kalahari Bushmen healers*. Philadelphia: Ringing Rocks Press.

King, A.G. 1998. *Superpositioning and the art of Fallen Rock, Junction Shelter, Didima Gorge, KwaZulu-Natal*. BSc (Hons) dissertation. University of the Witwatersrand.

Kleiner, F. 2009. *Gardner's art through the ages: The western perspective*. vol. 2, Farmington Hills, MI.: Cengage Learning.

Kleiner, F. 2013. *Gardner's art through the ages: The western perspective*, vol. 1, Farmington Hills, MI.: Cengage Learning.

Kreamer, C.M., Roberts, M.N., Harney, E., & Purpura, A. 2007. Inscribing meaning: Writing and graphic systems in African art. *African Arts* 40(3): 78–91.

Kreamer, C.M., & Childs, A.L. (eds). 2014. *Conversations: African and African American artworks in dialogue from the collections of the Smithsonian National Museum of African Art and Camille O. and William H. Cosby, Jr*. Washington, DC.: National Museum of African Art, Smithsonian Institution.

Lahelma, A. 2007. 'On the back of a blue elk': recent ethnohistorical sources and 'ambiguous' Stone Age rock art at Pyhänpää, Central Finland. *Norwegian Archaeological Review* 40(2): 113–137.

Landy, D. 1978. Body and Mind in Zulu Medicine: An Ethnography of Health and Disease in Nyuswa-Zulu Thought and Practice. Harriet Ngubane. *Medical Anthropology Newsletter* 10(1): 16–17.

Leeuwenburg, J. 1970. A Bushman legend from the George district. *The South African Archaeological Bulletin* 25(99/100): 145–146.

Lemaitre, S. 2012. Thunderbirds and horned snakes: Cosmogony at Canadian rock art sites. In: F. Fauconnier & S. Lemaitre (eds), *Rock art in the Americas: Mythology, cosmogony and rituals*. British Archaeological Report. International Series 2448, Oxford: Archaeopress, 21–30.

Le Quellec, J.L. 2008. What's new in the Sahara, 2000-2004. In: P. Bahn N. Franklin & M. Strecker (eds), *Rock art studies: News of the world III*. Oxford: Oxbow Books, 52–88.

Lewis-Williams, J.D. 1972. The syntax and function of the Giant's Castle rock-paintings. *The South African Archaeological Bulletin* 27(105/106): 49–65.

Lewis-Williams, J.D. 1981a. *Believing and seeing: Symbolic meanings in southern San rock paintings*. London: Academic Press.

Lewis-Williams, J.D. 1981b. The thin red line: Southern San notions and rock paintings of supernatural potency. *South African Archaeological Bulletin* 36(33): 5–13.

Lewis-Williams, J.D. 1983. *The rock art of southern Africa*. Cambridge: CUP Archive.

Lewis-Williams, J.D. 1986. Cognitive and optical illusions in San rock art research. *Current Anthropology* 27: 171–178.

Lewis-Williams, J.D. 1987. A dream of eland: An unexplored component of San shamanism and rock art. *World Archaeology* 19(2): 165–177.

Lewis-Williams, J.D. 1995. Seeing and construing: The making and 'meaning' of a southern African rock art motif. *Cambridge Archaeological Journal* 5(1): 3–23.

Lewis-Williams, J.D. 1996. Image and counter-image: The work of the Rock Art Research Unit, University of the Witwatersrand. *African Arts* 19: 34–43.

Lewis-Williams, J.D. 1998. Quanto?: The issue of 'many meanings' in southern African San rock art research. *The South African Archaeological Bulletin* 53(168): 86–97.

Lewis-Williams, J.D. (ed). 2000. *Stories that float from afar: Ancestral folklore of the San of southern Africa* (No. 5). Cape Town: David Philip, New Africa Books.

Lewis-Williams, J.D. 2002. *A cosmos in stone: Interpreting religion and society through rock art*, vol. 1. Walnut Creek, CA.: Altamira Press.

Lewis-Williams, J.D. 2003. *Images of mystery: Rock art of the Drakensberg*. Cape Town: Double Storey.

Lewis-Williams, J.D. 2006. The evolution of theory, method and technique in southern African rock art research. *Journal of Archaeological Method and Theory* 13(4): 341–375.

Lewis-Williams, J.D. 2010a. *Conceiving God: The cognitive origin and evolution of religion*. London: Thames & Hudson.

Lewis-Williams, J.D. 2010b. The imagistic web of San myth, art and landscape. *Southern African Humanities* 22: 1–18.

Lewis-Williams, J.D., & Blundell, G. 1997. New light on finger-dots in southern African rock art: Synesthesia, transformation and technique. *South African Journal of Science* 93: 51–54.

Lewis-Williams, J.D., Blundell, G., Challis, W., & Hampson, J. 2000. Threads of light: Re-examining a motif in southern African San rock art. *The South African Archaeological Bulletin* 55(172): 123–136.

Lewis-Williams, J.D., & Challis, S. 2011. *Deciphering ancient minds: The mystery of San Bushman rock art*. London: Thames & Hudson.

Lewis-Williams, J.D., & Dowson, T.A. 1989. *Images of power: Understanding Bushman rock art*. Johannesburg: Southern Book Publishers.

Lewis-Williams, J.D., & Dowson, T.A. 1990. Through the veil: San rock paintings and the rock face. *The South African Archaeological Bulletin* 45(151): 5–16.

Lewis-Williams, J.D., Dowson, T.A., & Deacon, J. 1993. Rock art and changing perceptions of southern Africa's past: Ezeljagdspoort reviewed. *Antiquity* 67(255): 273–291.

Lewis-Williams, J.D., & Pearce, D.G. 2004. *San spirituality: Roots, expression, and social consequences*. Walnut Creek, CA.: Altamira Press.

Lewis-Williams, J.D., & Pearce, D.G. 2009. Constructing spiritual panoramas: Order and chaos in southern African San rock art panels. *Southern African Humanities* 21: 41–61.

Lewis-Williams, J.D., & Pearce, D.G. 2015. San rock art: Evidence and argument. *Antiquity* 89(345): 732–739.

Lombard, M. 2007. The gripping nature of ochre: The association of ochre with Howiesons Poort adhesives and Later Stone Age mastics from South Africa, *Journal of Human Evolution* 53 (4): 406–419.

Loubser, J.H. 1997. The use of the Harris diagrams in recording, conserving and interpreting rock paintings. *International Newsletter on Rock Art* 18: 14–21.

Lucie-Smith, E. 1984. *Dictionary of art terms*. New York: Thames and Hudson, Inc., 128, 162.

Lucy, J.A. 1997. The linguistics of 'colour'. In: Hardin, C.L., & Maffi, L. (eds), *Colour categories in thought and language*. Cambridge: Cambridge University Press, 320–346.

Lyons, J. 1995. A colour in language. In: T. Lamb & J. Bourriau (eds), *Colour: Art and science* 194–224.

MacCannell, D. 2018. *Rainbows: Nature and culture*. London: Reaktion Books.

Maggs, T.M., & Sealy, J. 1983. Elephants in boxes. *South African Archaeological Society Goodwin Series* 4: 44–48.

Manhire, A.H., Parkington, J.E., & Mazel, A.D. 1986. Cattle, sheep and horses: A review of domestic animals in the rock art of southern Africa. *South African Archaeological Society Goodwin Series* 5: 22–30.

Margoliouth, D.S. (ed). 1911. *The poetics of Aristotle*. London: Hodder & Stoughton.

Marshall, L. 1957. N!ow. Africa: *Journal of the International African Institute* 27(3): 232–240.

Mazel, A.D., & Watchman, A.L. 1997. Accelerator radiocarbon dating of Natal Drakensberg paintings: Results and implications. *Antiquity* 71: 445–49.

Mazel, A.D., & Watchman, A.L. 2003. Dating rock paintings in the uKhahlamba-Drakensberg and the Biggarsberg, KwaZulu-Natal. *South Africa, Southern African Humanities* 15: 59–73.

Mellars, P. 2005. The impossible coincidence. A single-species model for the origins of modern human behaviour in Europe. *Evolutionary Anthropology: Issues, News, and Reviews* 14(1): 12–27.

McGranaghan, M., Challis, S., & Lewis-Williams, D. 2013. Joseph Millerd Orpen's 'A glimpse into the mythology of the Maluti Bushmen': A contextual introduction and republished text. *Southern African Humanities* 25: 137–166.

Mguni, S. 1997. *The evaluation of the superpositioning sequence of painted images to infer relative chronology: Diepkloof Kraal Shelter as a case study*. Doctoral dissertation. University of Cape Town.

Mguni, S. 2015. *Termites of the gods: San cosmology in southern African rock art*. Johannesburg: Wits University Press.

Mikdadi, S. 2000. The magic of signs and patterns in North African art. *Heilbrunn Timeline of Art History*. New York: The Metopolitan Museum of Art. www.metmuseum.org/toah/hd/nasp/hd_nasp.htm (accessed October 2014).

Milbourne, K., & Baltimore Museum of Art. 2007. *Meditations on African art: Colour*. Baltimore: Baltimore Museum of Art.

Mitchell, P. 2001. Andrew Anderson and the nineteenth century origins of southern African archaeology. *Southern African Humanities* 13: 37–60.

Mitchell, P., & Smith, B. (eds). 2009. *The eland's people: New perspectives in the rock art of the Moloti-Drakensberg Bushmen: Essays in memory of Patricia Vinnicombe*. Johannesburg: Wits University Press.

Mithen, S.J. 2005. *The singing Neanderthals: The origins of music, language, mind, and body*. Cambridge, MA.: Harvard University Press.

Mooney, S.D., Geiss, C., & Smith, M.A. 2003. The use of mineral magnetic parameters to characterize archaeological ochres. *Journal of Archaeological Science* 30(5): 511–523.

Morphy, H. 1989. From dull to brilliant: the aesthetics of spiritual power among the Yolngu. *Man* 21–40.

Morphy, H. 2007. *Becoming art: exploring cross-cultural categories*. Oxford: Berg.

Morphy, H., & Perkins, M. (eds). 2009. *The anthropology of art: a reader*. John Wiley & Sons.

Nagel, A. 2010. *Colors, gilding and painted motifs in Persepolis: Approaching the polychromy of Achaemenid Persian architectural sculpture, c. 520-330 BCE*. Doctoral dissertation. University of Michigan.

Nettleton, A. 1985. The visual significance of southern San painting. Conference paper. Proceedings of the First Conference of the South African Association of Art Historians. Department of Fine Art and History of Art, University of Natal, Pietermaritzburg, 1–3 July.

Nettleton, A. 1995. Collections, exhibitions and histories: Constructing a new South African art history, Greater Johannesburg Transitional Metropolitan Council. *Africus* 65: 68–69.

Nettleton, A. 2005. Der Mond als Schuh: Zeichnungen der San. *African Arts* 38(1): 92–94.

Nettleton, A. 2011. Primitivism in South African art. In: L. Van Robbroeck (ed), *The visual century: South African art in context*, vol. 2. Johannesburg: Wits University Press, 141–162.

Ngubane, H. 1977. *Body and mind in Zulu medicine. An ethnography of health and disease in Nyuswa-Zulu thought and practice*. London: Academic Press Inc.

Nhundu, A. 2015. The effects of global warming on the rock art in the uKhahlamba-Drakensberg Park World Heritage site, South Africa. In: J. Runge (ed), *Changing climates, ecosystems and environments within arid southern Africa and adjoining regions*, 191–208.

Ouzman, S. 1997. *Hidden in the common gaze: Collective and idiosyncratic rock paintings at Rose Cottage Cave, South Africa*. Bloemfontein: Researches-Nasionale Museum, vol. 13, 225–256.

Ouzman, S. 2005. The magical arts of a raider nation: Central South Africa's Korana rock art. *South African Archaeological Society Goodwin Series* 9: 101–113.

Ouzman, S. 2016. Flashes of brilliance: San rock paintings of heaven's things. In: G. Blundell, C. Chippindale & B. Smith (eds), *Seeing and knowing: Understanding rock art with and without ethnography*. Johannesburg: Wits University Press, 11–31.

Pager, H.L. 1971. *Ndedema*. Graz: Akademische Druck.

Pager, H.L. 1975. *Stone age myth and magic as documented in the rock paintings of South Africa*. Graz: Akademische Druck-u. Verlagsanstalt.

Pager, H., & Breunig, P. 1993. *The rock paintings of the Upper Brandberg: Amis Gorge*, vol. 1. Cologne: Heinrich-Barth-Institut.

Parkington, J. 1989. Interpreting paintings without a commentary: Meaning and motive, content and composition in the rock art of the western Cape, South Africa. *Antiquity* 63(238): 13–26.

Parkington, J. 2002. Men, women, and eland: Hunting and gender among the San of southern Africa. In: S. M. Nelson & M. Rosen-Ayalon (eds), *In pursuit of gender: Worldwide archaeological approaches*. Walnut Creek, CA.: Altamira, 93–117.

Parkington, J. 2003. *Cederberg rock paintings*, vol. 2. Clanwilliam: Living Landscape Project.

Pastoureau, M., & Cruse, M.I. 2001. *Blue: The history of a color*. Princeton, NJ.: Princeton University Press.

Pastoureau, M. 2017. *Red: The history of a color*. Princeton, NJ.: Princeton University Press.

Pastoureau, M. 2014. *Green: The history of a color*. Princeton, NJ.: Princeton University Press.

Pastoureau, M. 2009. *Black: The history of a color*. Princeton, NJ.: Princeton University Press.

Pearce, D.G. 2001. *Harris matrices in southern African rock art: Towards a chronology of the San rock art of the north-eastern Cape*. BSc (Hons) dissertation. University of the Witwatersrand.

Pearce, D.G. 2002. Changing men, changing eland: sequences in the rock paintings of Maclear District, Eastern Cape, South Africa. *American Indian Rock Art* 28: 129–138.

Pearce, D.G. 2006. A comment on Swart's rock art sequences and use of the Harris matrix in the Drakensberg: Notes and comments. *Southern African Humanities* 18(2): 173–188.

Pearce, D.G. 2010. The Harris matrix technique in the construction of relative chronologies of rock paintings in South Africa. *The South African Archaeological Bulletin* 65(192): 148-153.

Pearson, J.L. 2002. *Shamanism and the ancient mind*. Walnut Creek, CA.: Altamira Press.

Peirce, C.S.S., & Peirce, C.S. 1998 (1982). *Writings of Charles S. Peirce: 1857-1866*. Indiana University Press.

Petru, S. 2006. Red, black or white? The dawn of colour symbolism. *Documenta Praehistorica* 33: 203–208.

Petru, S. 2010. The power of colour. IFRAO Congress, L'art pléistocène dans le monde. Tarascon-sur Ariège, 6–11.

Preucel, R.W. 2010. *Archaeological Semiotics* (Vol. 5). John Wiley & Sons.

Prins, F.E. 1990. Southern Bushmen descendants in the Transkei: Rock art and rainmaking. *South African Journal of Ethnology* 13(3): 110–116.

Prinsloo, L.C., Tournié, A., Colomban, P., Paris, C., & Bassett, S.T. (2013) In search of the optimum Raman/IR signatures of potential ingredients used in San/Bushman rock art paint. *Journal of Archaeological Science* 40(7): 2981–2990.

Regier, T., Kay, P., Gilbert, A.L., & Ivry, R.B. 2010. Language and thought: Which side are you on, anyway. In: B. Malt & P. Wolff (eds), *Words and the mind: How words capture human experience* Oxford Scholarship Online, 165–182. https://oxford.universitypressscholarship.com/view/10.1093/acprof:oso/9780195311129.001.0001/acprof-9780195311129

Reichel-Dolmatoff, G. 1978. *Beyond the Milky Way: Hallucinatory imagery of the Tukano Indians*. Los Angeles: UCLA Latin American Center.

Reichel-Dolmatoff, G. 1979. Desana shaman's rock crystals and the hexagonal universe. *Journal of Latin American Lore* 5: 117–128.

Reichel-Dolmatoff, G. 1985. Tapir avoidance in the Colombian northwest Amazon. In: G. Urton (ed), *Animal myths and metaphors in South America*. Salt Lake City: University of Utah Press, 107–143.

Reichel-Dolmatoff, G. 1988. *Goldwork and shamanism: An iconographic study of the Gold Museum*. Medellín: Compañía Litográfica Nacional S.A.

Reichel-Dolmatoff, G. 1997. *Rainforest shamans: Essays on the Tukano Indians of the Northwest Amazon*. Devon: Themis Books.

Reynolds, F. 2009. Regenerating substances: Quartz as an animistic agent. *Time and Mind: The Journal of Archaeology, Consciousness and Culture* 2(2): 153–166.

Riley, E. 2007. The Hunting Ground's Doings:/Xam Narratives of Animals, Hunting and the Veld. In: P. Skotnes (ed), *Claims to the Country: The Archives of Lucy Lloyd and Wilhelm Bleek.* Johannesburg: Jacana Media, 290-311.

Robinson, D. 2004. The mirror of the sun: surface, mineral applications and interface in Californian rock art. In: N. Boivin and M. A. Owoc (eds), *Soils, Stones and symbols: archaeological and anthropological perspectives on the mineral world*. London: UCL Press.

Rosand, D. 1988. *The meaning of the mark: Leonardo and Titian (No. 8)*. University of Washington Press.

Rose, R. 1957. *Living magic: The realities underlying the psychical practices and beliefs of the Australian Aborigines*. London: Chatto & Windus.

Rosenberg, H. 1962. *The Tradition of the New*. London: Thames & Hudson.

Richards, A. 2013. *Chisungu: A girl's initiation ceremony among the Bemba of Zambia*. London: Routledge.

Ricoeur, P. 1976. *Interpretation theory: Discourse and the surplus of meaning*. Fort Worth: Texas Christian University Press.

Ricoeur, P. 1977. *The rule of metaphor: The creation of meaning in language*. Trans. R. Czerny, K. McLaughlin & J. Costello, Toronto: University of Toronto Press.

Ricoeur, P. 2006. *On translation*. London & New York: Routledge.

Rudner, I.E. 1982. Khoisan pigments and paints and their relationships to rock paintings. *Annals of the South African Museum* 187: 1–281.

Russell, T. 1997. *Sequencing rock paintings: The application of the Harris matrix to rock art at Main Caves North, Giant's Castle Game Reserve, KwaZulu-Natal*. BSc (Hons) dissertation. University of Cape Town.

Russell, T. 2000. The application of the Harris matrix to San rock art at Main Caves North, KwaZulu-Natal. *The South African Archaeological Bulletin* 55(171): 60–70.

Sapir, E. 1921. *Language. An introduction to the study of language*. New York: Harcourt Brace.

Sapir, E. 1951. The status of linguistics as a science. In: D.G. Mandelbaum (ed), *Selected Writings of Edward Sapir*. Berkeley: University of California Press, 160–166.

Sassen, K. 1994. Possible halo depictions in the prehistoric rock art of Utah. *Applied Optics* 33(21): 4756–4760.

Schoonraad, M. 1960. Preliminary survey of the rock-art of the Limpopo valley. *The South African Archaeological Bulletin* 15(57): 10–13.

Sjöstrand, Y., Back Danielsson, I.M. & Fahlander, F. (2012) Imagery beyond representation. In: I.M. Back Danielsson, F. Fahlander & Y. Sjöberg (eds), *Encountering imagery: Materialities, perceptions, relations*. Stockholm: Stockholm University, 1–12.

Skeates, R. 2010. *An archaeology of the senses: prehistoric Malta*. Oxford University Press.

Skotnes, P. 1991. *Sound from the thinking strings: A visual, literary, archaeological and historical interpretation of the final years of |Xam life*. Cape Town: Axeage Private Press.

Skotnes, P. 1994. The visual as a site of meaning: San parietal painting and the experience of modern art. In: T.A. Dowson & J.D. Lewis-Williams (eds), *Contested images: Diversity in southern African rock art research*. Johannesburg: Wits University Press, 315–330.

Skotnes, P. (ed). 1996a. *Miscast: Negotiating the presence of the Bushmen*. Cape Town: University of Cape Town Press.

Skotnes P. 1996b. The thin black line: Diversity in the paintings of the southern San and the Bleek and Lloyd Collection. In: J. Deacon & T.A. Dowson (eds), *Voices from the past: /Xam Bushmen and the Bleek and Lloyd collection*. Johannesburg: Wits University Press, 234–244.

Skotnes, P. (ed). 2007. *Claim to the country: The archive of Lucy Lloyd and Wilhelm Bleek*. Cape Town & Johannesburg: Jacana.

Skotnes, P. 2010. Stars are small dark-coloured things that live in holes in the ground. In: D.L. Block, K. C. Freeman & I. Puerari (eds) *Galaxies and their masks: A conference in honour of K.C. Freeman*. FRS, New York, NY: Springer, 1–22.

Slingsby, P. 2013. *Rock art of the Western Cape. One: The Sevilla Trail and Traveller's Rest*. Cape Town: FontMaker.

Smith, M.A., & Pell, S. 1997. Oxygen-isotope ratios in quartz as indicators of the provenance of archaeological ochres. *Journal of Archaeological Science* 24(9): 773–778.

Smith, M.A., Fankhauser, B., & Jercher, M. 1998. *The changing provenance of red ochre at Puritjarra rock shelter, central Australia: Late Pleistocene to present*. In Proceedings of the Prehistoric Society, vol. 64, Cambridge University Press, 275–292.

Solomon, A. 1992. Gender, representation, and power in San ethnography and rock art. *Journal of Anthropological Archaeology* 11(4): 291–329.

Solomon, A. 1995. *Rock art incorporated: An archaeological and interdisciplinary study of certain human figures in San art*. Doctoral dissertation. University of Cape Town.

Solomon, A. 1997. The myth of ritual origins? Ethnography, mythology and interpretation of San rock art. *The South African Archaeological Bulletin* 52(165): 3–13.

Solomon, A. 1998a. Ethnography and method in southern African rock art research. In: C. Chippindale & P.S. Taçon (eds), *The archaeology of rock art*. Cambridge: Cambridge University Press, 268–282.

Solomon, A. 1998b. *The essential guide to San rock art*. Cape Town: David Philip, New Africa Books.

Solomon, A. 1999. Magic, diversity and the ethnographic contexts of San rock paintings in southern Africa. Conference paper, IRAC Conference 1999, viewed April 2015, http://www.antiquityofman.com/anne_solomon.html

Solomon, A. 2000. Pigment and paint analyses and their potential in San rock art research. *Pictogram* 11 (2): 12–15.

Solomon, A. 2006. Roots and revolutions: A critical overview of early and late San rock art research. *Afrique & Histoire* 6(2): 77–110.

Solomon, A. 2008. Myths, making, and consciousness. *Current Anthropology* 49(1): 59–86.

Solomon, A. 2013. The death of trance: Recent perspectives on San ethnographies and rock arts. *Antiquity* 87(338): 1208–1213.

Stanford, W.E. 1910. Statement of Silayi, with reference to his life among the Bushmen. *Transactions of the Royal Society of South Africa* 1(2): 435–440.

St. Fleur, N. 2018. Oldest known drawing by a human is found in South Africa. *The New York Times* 13: A10.

Swart, J. 2004. Rock art sequences in uKhahlamba-Drakensberg Park, South Africa. *Southern African Humanities* 16(1): 13–35.

Taçon, P.S. 1991. The power of stone: Symbolic aspects of stone use and tool development in Western Arnhem Land, Australia. *Antiquity* 65: 192–207.

Taçon, P.S. 2008. Rainbow colour and power among the Waanyi of northwest Queensland. *Cambridge Archaeological Journal* 18(2): 163–176.

Tanner, J., & Osborne, R. 2007. Introduction: Art and agency and art history. In: R. Osborne & J. Tanner (eds), *Art's Agency and Art History*. Malden, MA.: Blackwell, 1–27.

Tanner, J. 2006. *The invention of art history in Ancient Greece: Religion, society and artistic rationalization*. Cambridge University Press.

Thackeray, A.I., Thackeray, J.F., & Beaumont, P.B. 1983. Excavations at the Blinkklipkop specularite mine near Postmasburg, Northern Cape. *The South African Archaeological Bulletin* 38(137): 17–25.

Theobald, R. 1972. *Habit and habitat*. Engelwood Cliff, NJ: Prentice-Hall.

Thomas, E.M. 1959. *The harmless people*, Harmondsworth: Penguin.

Thompson, R.F. 1984. *Flash of the spirit: African and Afro-American art and philosophy*. New York: Vintage.

Tomásková, S. 1997. Places of art: Art and archaeology in context. In: M. Conkey, O. Soffer, D. Stratmann & N. Jablonski (eds), *Beyond art: Pleistocene image and symbol*. San Francisco: The California Academy of Science, 265–287.

Tournié, A., Prinsloo, L. C., Paris, C., Colomban, P., & Smith, B. 2011. The first in situ Raman spectroscopic study of San rock art in South Africa: procedures and preliminary results. *Journal of Raman Spectroscopy* 42(3): 399–406.

Townley, S. 2015. A Rock Art Jewel. *Africa Geographic*. https://africageographic.com/stories/rock-art busman-painting-drakensberg-south-africa/

Turner, V.W. 1967. *The forest of symbols: Aspects of Ndembu ritual*. Ithaca & London: Cornell University Press.

Turner, V.W. 1968. *The drums of affliction: A study of religious processes among the Ndembu of Zambia*. Oxford: Oxford University Press.

Turner, V.W. 1980. Social dramas and stories about them. *Critical Inquiry* 7(1): 141–168.

Turner, V. 2013 (1966) Colour classification in Ndembu ritual. In: M Banton (ed), *Anthropological approaches to the study of religion*. London: Routledge, 47–84.

Ucko, P.J., & Rosenfeld, A. 1967. *Palaeolithic cave art*. McGraw-Hill.

Van Gennep, A. 1960. *The rites of passage*. Chicago: Phoenix Books [1908].

Vansina, J. 2014. *Art history in Africa*. Oxford: Routledge.

Venter, G. 2011. *Surface preparation and the effects on rock art deterioration*. Doctoral dissertation. University of Pretoria.

Veth, P., Stern, N., Mc Donald, J., Balme J., & Davidson, I. 2011. The role of information exchange in the colonization of Sahul. In: R. Whallon,W. A. Lovis & R. Hitchcock (eds), *Information and its role in hunter-gatherer bands*. Los Angeles: The Cotsen Institute of UCLA, 203–220.

Vinnicombe, P. 1975. The ritual significance of eland (Taurotragus oryx) in the rock art of southern Africa. In: E. Anati (ed), *Les religions de la préhistoire: Actes du Valcamonica* symposium, Capo de Ponte: Centro Camuno di Studi Preistorci, 379–400.

Vinnicombe, P. 1976. *People of the eland: Rock paintings of the Drakensberg Bushmen as a reflection of their life and thought*. Pietermaritzburg: University of Natal Press.

Vogel, S.M. 2007. *Primitivism revisited: After the end of an idea*. New York: Sean Kelly Gallery.

Walker, N.J. 1998. Botswana's prehistoric rock art. In: P. Lane, A. Reid & A. Segobye (eds), *Ditswa mmung: The archaeology of Botswana*. Gaborone: The Botswana Society, 206–232.

Waraksa, E.A. 2009. Seeing red: Color as a ritual cue on Egyptian female figurines. Conference paper. Theoretical Archaeology Group, The Color of Things: Debating the Role and Future of Color in Archaeology, California: Stanford University, 1–3.

Watts, I. 2002. Ochre in the Middle Stone Age of southern Africa: Ritualised display or hide preservative? *The South African Archaeological Bulletin* 57(175): 1–14.

Watts, I., Chazan, M., Wilkins, J., Barham, L., Coulson, S., Kuhn, S.L., & Power, C., 2016. Early evidence for brilliant ritualized display: Specularite use in the Northern Cape (South Africa) between ~500 and ~300 ka. *Current Anthropology* 57(3): 287–310.

Wendt, W.E. 1976. 'Art Mobilier' from the Apollo 11 cave, South West Africa: Africa's oldest dated works of art. *The South African Archaeological Bulletin* 31(121/122): 5–11.

Wessels, M. (ed). 2010. 'Bleek and Lloyd Collection. Archive of /Xam Bushman oral literature', in *Encyclopedia of South African arts, culture and heritage (ESAACH)*, http://esaach.org.za/index.php?title=Bleek_and_Lloyd_Collection

Whitley, D.S. 2000. *The art of the shaman: Rock art of California*. Salt Lake City: University of Utah Press.

Whitley, D.S., Dorn, R.I., Simon, J.M., Rechtman, R.B., & Whitley, T.K. 1999. Sally's rock shelter and the archaeology of the vision quest. *Cambridge Archaeological Journal* 9(2): 221–247.

Wierzbicka, A. 1990. The meaning of colour terms: Semantics, culture, and cognition. *Cognitive Linguistics* 1(1): 99–150.

Wierzbicka, A. 2008. Why there are no 'colour universals' in language and thought. *Journal of the Royal Anthropological Institute* 14: 407–425.

Willcox, A.R. 1984. *The rock art of Africa*. Johannesburg: MacMillan South Africa.

Willett, F. 2002. *African art: An introduction*. London: Oxford University Press.

Williamson, B.S. 2000. Direct testing of rock painting pigments for traces of haemoglobin at Rose Cottage Cave, South Africa. *Journal of Archaeological Science* 27(9): 755–762.

Wiltshire, N. 2011. *Spatial analysis of archaeological sites in the Western Cape using an integrated digital archive*. Doctoral dissertation, University of Cape Town.

Wintjes, J. 2011. A pictorial genealogy: The rainmaking group from Sehonghong Shelter. *Southern African Humanities* 23(1): 17–54.

Wintjes, J. 2012. *Archaeology and visuality, imaging as recording: A pictorial genealogy of rock painting research in the Maloti-Drakensberg through two case studies*. Doctoral dissertation. University of the Witwatersrand.

Wintjes, J. 2014. Icons and archives: The Orpen lithograph in the context of 19th-century depictions of rock paintings. *Critical Arts* 28(4): 689–709.

Wintjes, J. 2016. Glimpses prior to Orpen: Pre-1874 texts and pictures about Bushman rock painting. In: J. De Prada-Samper, M. Du Plessis, J. Hollmann, J. Weintroub, J. Wintjes & J. Wright, *On the Trail of Qing and Orpen*. Johannesburg: Standard Bank, 159–179.

Witkowski, S.R., & Brown, C.H. 1977. An explanation of color nomenclature universal. *American Anthropologist* 79(1): 50–57.

Wölflin, H. 1950 (1932). *Principles of art history: The problem of the development of style in later art*. Transl. M.D. Hottinger. New York: Henry Holt/Dover Publications, 155–167.

Woodhouse, H.C. 1989. Motivation and the rain animal in the rock art of southern Africa. *South African Journal of Art History* 4(3–4): 15–25.

Whorf, B.L. 1956. *Language, thought and reality: Selected writing of Benjamín Lee Whorf*. Cambridge, MA.: The MIT Press.

Wreschner, E.E., Bolton, R., Butzer, K.W., Delporte, H., Häusler, A., Heinrich, A., & Zollinger, H. 1980. Red ochre and human evolution: A case for discussion [and Comments and Reply], *Current Anthropology* 21(5): 631–644.

Yates, R., Golson, J., & Hall, M. 1985. Trance performance: The rock art of Boontjieskloof and Sevilla, *The South African Archaeological Bulletin* 40(142): 70–80.

Yates, R., Parkington, J., & Manhire, T. 1990. *Pictures from the past: a history of the interpretation of rock paintings and engravings of southern Africa*. Pietermarizburg: Centaur Publications.

Yates, R., & Manhire, A. 1991. Shamanism and rock paintings: Aspects of the use of rock art in the south-western Cape, South Africa. *The South African Archaeological Bulletin* 46(153): 3–11.

Zanon, M. 2009. Color symbolism in the Ancient Near East: The royal tombs of the Cemetery of Ur. Conference paper. Theoretical Archaeology Group. The Color of Things: Debating the Role and Future of Color in Archaeology, Stanford University, CA, 1–3.

PERSONAL COMMUNICATION

Sam Challis, Senior Researcher, Rock Art Research Institute, University of the Witwatersrand, Johannesburg, South Africa

Anitra Nettleton, Professor of Art History, University of Johannesburg; Professor Emerita, University of the Witwatersrand, Johannesburg, South Africa

Gerrit Olivier, Professor, Wits School of Arts, University of the Witwatersrand, Johannesburg, South Africa

Andrew Rae July, Field Guide, Kaoxa Bush Camp, Musina, Limpopo Province, South Africa

David van der Westhuizen, Clanwilliam Field Guide, Living Landscape Project, Clanwilliam, Western Cape, South Africa