

# Mesopotamian Sculpture in Colour

edited by

Astrid Nunn and Heinrich Piening

with contributions by

Sarah Hilker, Barbara Jändl, Béatrice Muller, Charles Piver and Shiyanthi Thavapalan



PEWE-VERLAG  
2020

# Table of contents

<b>Preface</b> ( <i>Astrid Nunn, with Heinrich Piening and Rupert Gebhard</i> ) .....	XI
<b>INTRODUCTION Mesopotamian sculpture in colour</b> ( <i>Astrid Nunn</i> )	1
Colours and statues .....	2
Colours that are visible to the naked eye .....	3
The colouration of dark stone .....	4
About colours .....	5
About the structure of this study .....	8
How to use this monograph .....	8
Approaching a cultural history of Mesopotamian colours .....	9
<b>CHAPTER 1 The corpus</b> ( <i>Astrid Nunn</i> ) .....	10
General: The complete corpus .....	10
Statues: Object numbers and museums, geographical distribution .....	10
First group: Statues with detected and analysed pigments .....	10
Second group: Analysed statues with no discernible traces of colour .....	12
Third group: Statues bearing traces of colour, known to us only from publications .....	12
Chronological and gender distribution .....	12
Sociological categorisation .....	12
Conclusion: About representativeness .....	15
<b>CHAPTER 2 Techniques of measurements, reconstruction, and print</b> ( <i>Astrid Nunn and Heinrich Piening</i> ) .....	16
General procedure .....	16
Microscopy und photography ( <i>Barbara Jändl</i> ) .....	17
Raman spectroscopy ( <i>Sarah Hilker</i> ) .....	19
Principles and procedures of Raman spectroscopy .....	19
Raman spectroscopy in art and archaeology .....	19
UV-Vis and XRF ( <i>Heinrich Piening</i> ) .....	20
Measuring and defining a colour .....	21
Measured colour: Reading spectra .....	21
Measured colour: Reading chromaticity diagrams and the question of original colour .....	22
A resume: Seeing, denominating, printing and reconstructing colour ...	24
Measurements and their evaluation: Antique or modern colour? ....	24
Modelling to denominating colours .....	24
Processing photos .....	25
Defining and reconstructing colours to be printed and printing colours .....	25

<b>CHAPTER 3 Technical aspects</b> ( <i>Astrid Nunn and Heinrich Piening</i> ) ...	27
The stones .....	27
The surface of the stone .....	28
Traces of colours .....	29
Why does colour survive? .....	29
Much vs. little .....	30
Seen with the naked eye vs. seen with a microscope .....	30
Printed photos of statues that we did not examine .....	30
The colours: Categories, pigments and origin .....	30
Categorising colours .....	30
“Black” and its pigments .....	31
“Red” and its pigments .....	34
Orpiment and realgar .....	35
White .....	35
Blue and green .....	37
Gold .....	38
Technical use of paints .....	38
Manufacturing paints .....	38
Binders and solvents .....	38
Polishing stone, grounding material, ground coat, and white .....	39
Mixing pigments of different colours .....	41
Applying paints .....	41
On a flat surface .....	41
In wedges .....	42
The final colouring .....	43
Repainting of statues .....	43
<b>CHAPTER 4 Catalogue of the 59 statues with colour residues and resulting analysis</b> ( <i>Astrid Nunn</i> ) .....	44
Late Uruk period .....	45
Jemdet Nasr (Uruk III) to Early Dynastic I period .....	46
Early Dynastic II period .....	48
Early Dynastic II-IIIa period .....	75
Early Dynastic III period .....	76
Akkad period .....	94
Lagash II and Ur III period .....	96
Old Babylonian period beginning with the Isin-Larsa period .....	109
End of the second millennium .....	120
Neo-Assyrian period .....	122
<b>CHAPTER 5 About the statues with traces of colour that we did not examine</b> ( <i>Astrid Nunn</i> ) .....	126
The Mesopotamian material .....	126
Late Uruk period (about 3400-3100 BCE) .....	126
Jemdet Nasr and Early Dynastic I period (about 3100-2750 BCE) ...	126
Early Dynastic II and III period (about 2750-2300 BCE) .....	127
Akkad period (about 2324-2142 BCE) .....	129
Ur III period (2110-2003 BCE) .....	129
Old Babylonian period (2019-1595 BCE) .....	129

Neo-Assyrian period (900-625 BCE) .....	129
Achaemenid period (559-330 BCE) .....	130
The ancient Near East .....	130
Technical sheet of the statue of Idrimi .....	132
<b>CHAPTER 6 Distribution of colour on all statuary (Astrid Numm) ...</b>	<b>134</b>
Overall results .....	134
Detailed results for the category “black” .....	134
Hair, beard, and moustache .....	134
Eyebrows .....	139
Eyes .....	139
Animals held in hands or seated upon .....	140
Headdress, necklace, hem and fringe of garment, wedges, base, outlining, and pillar .....	140
Detailed results for the category “red” .....	140
Skin colour with lips and nails .....	140
Garments .....	143
The Early Dynastic period: Plain fabric, tufts, and tufted fringes .....	143
The end of the third, second and first millennia: plain fabric and flounced garment .....	145
Hem, fringe, and tufted fringe, third to first millennium BCE ...	146
Headcover and hairband .....	148
Making and dyeing fabric .....	149
In summary: Colours of clothing from the third to the first millennium BCE .....	152
“Black” and/or “red” .....	152
Inscriptions .....	152
Accessories .....	153
White .....	154
Blue .....	154
Colouring dark stone .....	155
Paint durability .....	156
Archaeological summary: Skin and garment colours, light and dark stone .....	157
<b>CHAPTER 7 La carnation dans les peintures murales du Grand Palais Royal de Mari (Béatrice Muller – Charles Piver) .....</b>	<b>158</b>
I. Objectifs, difficultés, sources et méthode .....	158
1. Objectif .....	158
2. Difficultés .....	158
3. Sources .....	159
4. Méthode et résultat final .....	159
II. Figures anthropomorphes à carnation blanche .....	160
1. Peinture de la salle 132 .....	160
2. Peinture de l’Investiture de la cour 106 .....	160
3. Peintures de la salle 220’ .....	160
4. Peintures de la salle 34 .....	162
5. Peintures hautes de la cour 106 .....	162

III. Figures anthropomorphes à carnation rouge .....	165
1. Composition de la salle 132 .....	166
2. La peinture de l'Investiture .....	167
3. Composition peinte de la salle 220' .....	168
4. Peintures hautes de la cour 106 .....	168
IV. Carnation ocre beige ou ocre jaune .....	171
1. Salle 132 .....	171
2. Salle 220' .....	171
3. Fragments de la salle 34 .....	172
V. Différence dans les carnations: une explication .....	172
1. La règle (carnation ocre rouge) et les exceptions (carnation blanche ou ocre beige) .....	172
2. Signification de la carnation sombre? .....	172
3. Les carnations claires des peintures hautes de la cour 106 .....	173
4. Données complémentaires: ongles, yeux, bouche, pilosité .....	173
Conclusion .....	174
<b>CHAPTER 8 Comparison of the statue colours with other archaeological material (Astrid Numm) .....</b>	<b>179</b>
Hair .....	179
Eyes .....	180
Skin colour, lips, and nails .....	181
Garments .....	186
Plain light-coloured and "red" fabric .....	186
Flounced fabric, fabric of Assyrian garments .....	187
Horned cap, headcovers, and royal crown .....	190
Shoes .....	191
Jewellery .....	191
Inscriptions .....	193
Contrasting elements .....	193
<b>CHAPTER 9 Speaking of colours (Shiyanthi Thavapalan) .....</b>	<b>194</b>
The language of colours and materials in Akkadian .....	194
Colours and their meanings .....	195
Colours as enlivening and beautiful aspects of form .....	197
<b>CHAPTER 10 Analysis and summary. Colours in ancient Mesopotamian life (Astrid Numm) .....</b>	<b>200</b>
The significance of statues representing human beings .....	200
Beauty in ancient Mesopotamia .....	201
What makes a statue beautiful? .....	202
The canon of beauty as applied on statues .....	203
Hair .....	203
Beards .....	203
Eyes .....	204
Skin colour .....	204
Lips .....	208
Fingernails .....	208

Garments .....	209
Nudity .....	212
Inscriptions on garments and skin .....	212
Invisibility and restricted visibility .....	212
Contrast and juxtaposition .....	213
The use of colours. Symbolism and religious, societal, political and ideological convention opposed to realism and technique .....	214
Conclusion: Why is Mesopotamian sculpture in colour .....	215
<b>ABBREVIATIONS</b> .....	217
<b>BIBLIOGRAPHY</b> .....	218
<b>APPENDICES</b> .....	232
List Ia: Statues with analysed and measured pigments .....	232
List Ib: Statue examined but without analysed and measured pigments	234
List II: Examined statues with no or probably no colour remains .....	235
List III: Statues with colour remains, known only from publications, according to their findspots .....	241
List IV: Statues with colour remains, known only from publications, according to the museums where they are kept .....	247
List V: Inventory numbers mentioned in this publication .....	253
<b>PLATES</b>	
Plate I: Map	
Plates II–III: Colours on the statues	
Plates IV–V: The statues and their colours	
Plates VI–VIII: Reconstructions	