Chromatic Dialogues:
Colour and Culture in Homer, Herodotus and the Hebrew Bible

Ellena Lyell

September 2020

Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Theology at the University of Nottingham

I, Ellena Lyell, declare that I have written this thesis, that it is entirely my own work, and that it has not been submitted for any other degree or professional qualification.

Signed: 

Date: 18.09.2020

Abstract

Colour and culture are closely intertwined. Yet ancient texts – such as Homeric epic, Herodotus' *Histories* and the Hebrew Bible – are still translated and interpreted with the assumption that the ancients perceived, classified and understood colour in the same way we do today. The conceptualisation of colour demonstrates a range of cultural nuances and offers insights into the thought processes of ancient society. Therefore, this study explores the nature of colour perception in the Hebrew Bible, using the categorisation and understanding of colour in Homeric epic and Herodotus' *Histories* as a comparative perspective. Greek literary materials, such as the *Iliad*, *Odyssey* and Herodotus' *Histories*, demonstrate that colours are categorised differently and used in a variety of ways that tie in with broader cultural themes. No biblical scholarship has scrutinized the intimate relationship between colour, culture and theology in a comprehensive way. This thesis begins by collating evidence for the classification of colours across the different literary corpora and exploring similarities and differences in patterns of usage. The chapter that follows takes one of the most evocative and versatile of these colours – purple – and closely examines its associations in both Greek and Hebrew literary contexts. This is then a springboard for a chapter on the materiality of colour in the Hebrew Bible. Ancient colours were fundamentally derived from and intertwined with material phenomena – bodies, objects and environment. As these materials were found throughout the ancient world, the next chapter analyses the provenances of these coloured materials, and the significance of these origins and associations for understanding the valency of colour in the Hebrew Bible. A final chapter applies these findings and the cultural connotations of colour categories to key biblical texts, and explores the extent to which colour in the Hebrew Bible is in constant dialogue with a broad range of social and cultural themes, and so acted as a theological marker and a literary device. This thesis demonstrates that the biblical authors

associated themes of beauty, wealth and types of power with colour, and these themes manifested themselves vividly through ekphrasis, experience and the senses. Most significantly, colour is central to understanding the portrayal of the human and the divine, and by enriching our understanding of the texts provides new insight into the world in which these texts were produced.

Acknowledgements

Since I was first accepted onto the PhD programme, I knew it was going to take a village to help me complete this – I was not wrong. Undoubtedly, this project would not have been possible without the support from the Midlands4Cities AHRC Doctoral Training Partnership. Thank you for the financial provision and further opportunities to attend conferences, workshops and meet a wide range of early career researchers going through similar motions.

In the same respect, the University of Nottingham's TRS department has been a constant source of encouragement for the past *seven* years. You welcomed a confused teenager who did not do her best at A-Level and by some miracle helped her find a passion and a love for the Hebrew Bible. My utmost thanks go to Professor Frances Knight, for confidently telling me I could do this, and to Dr Tarah van de Wiele, who without which I would not have engaged with this topic.

To my supervision team: Dr Marian Kelsey and Professor Alison Milbank, your patience, kindness and generosity is unfathomable; Professor Mark Bradley, thank you for your advice, guidance and continual optimism (particularly when persevering through some terrible drafts); and to Professor Carly Crouch, you scare me with your wisdom, have inspired me and been the role model I did not realise I needed, thank you.

Penultimately to my friends, to those who have read many versions of this thesis and side projects to it (Michael Bullock, Sam Penny, and Dr Sara Parks in particular), to those who have kindly sent me their work during the pandemic, and to the always fruitful conversations with Dr Laura Quick. A very special mention must go to the very-soon-to-be Dr Joseph Scales, the

time and energy you have put in is inspiring and your inputs invaluable. To those outside the field that have read my work, listened to my ramblings and not necessarily understood any of what is going on: Charlotte Fathers, the Lyell/Smith/Turton family, Lauren Heria, James Smith, Ella Tolhurst and Jenni Trotter to name a few.

To my family, Mum and Dad I cannot even begin to put into words my gratitude towards you. I am where I am today and who I am today because of you. Along with my brothers, Oliver and Billy, who have provided comedic relief and annoyance at the same time, you have gone to the ends of the earth to provide and encourage me. Also to the pups, Rocky and Gwynny, thanks for being the best listeners and for the endless cuddles.

Last, but certainly not least, to my number one cheerleader, my soulmate, my husband:
You make my life colourful,
Honey, this one is for you ♥

.

Contents

Abstract ... ii
Acknowledgements ... iv
Abbreviations ... ix
List of Tables and Maps ... xiv

1. Introduction ... 1
1.1. Previous Colour Studies ... 2
1.1.1. Nineteenth-Century Theories of Colour ... 2
1.1.2. Relativism v Universalism ... 5
1.1.3. Colour in the Hebrew Bible and the Ancient Near East ... 8
1.1.4. Colour in the Greco-Roman World ... 12
1.1.4.1. Greek Colour Categorisation ... 12
1.1.4.2. Greek Colour Words and Ancient Greece ... 14
1.1.4.3. Greek Colour Words, Latin Colour Words and Ancient Rome ... 16
1.1.5. Cultural Themes in the Hebrew Bible ... 18
1.1.6. Summary ... 24
1.2. What is "Colour"? ... 25
1.3. Research Questions and Methodology ... 31
1.3.1. Questions ... 31
1.3.2. Methodology ... 32
1.3.2.1. Comparative Method ... 33
1.3.2.2. Panchronic and Typological Methods ... 37
1.3.2.3. Collecting Data ... 39
1.4. Thesis Outline ... 42

2. Evidence of Colour Terms in Homer, Herodotus and the Hebrew Bible ... 47
2.1. Homer: *Iliad* and *Odyssey* ... 47
2.1.1. Introduction to the *Iliad* and *Odyssey* ... 47
2.1.2. Evidence of Colour Terms in the *Iliad* and *Odyssey* ... 50
2.1.3. Highlights and Patterns from the Data ... 52
2.2. Herodotus: *Histories* ... 54
2.2.1. Introduction to the *Histories* ... 54
2.2.2. Evidence of Colour Terms in the *Histories* ... 55
2.2.3. Highlights and Patterns from the Data ... 56

2.3. Hebrew Bible: *Biblia Hebraica Stuttgartensia (BHS)* 58
2.3.1. Introduction to the Hebrew Bible 58
2.3.2. Evidence of Colour Terms in the *BHS* 59
2.3.3. Highlights and Patterns from the Data 61
2.4. Summary 64

3. Perceptions of Purple 67
3.1. History of "Sea-Purple" 71
3.2. Greek "Sea-Purple" 74
3.2.1. Homer 75
3.2.1.1. "Sea-Purple" Dye as a Garment 75
3.2.1.2. Troubling "Sea-Purple" 77
3.2.1.3. "Sea-Purple" Death and Blood 79
3.2.1.4. "Sea-Purple" Rainbows and Clouds 81
3.2.2. Herodotus 82
3.2.2.1. "Sea-Purple" Dye as a Garment 83
3.2.2.2. "Sea-Purple" Salt 86
3.2.3. Summary 87
3.3. "Sea-Purple" in the Hebrew Bible 87
3.3.1. "Sea-Purple" as a Material 88
3.3.2. Descriptions of Foreign "Sea-Purple" 91
3.3.3. ארגמן in Song of Songs 92
3.3.4. Summary 94
3.4. Summary 95

4. Materiality of Colour 98
4.1. Matter *of* the Body 99
4.1.1. Skin 100
4.1.2. Face 104
4.1.3. Blood and Innards 108
4.1.4. Hair 110
4.1.5. Summary 112
4.2. Matter *on* the Body 113
4.2.1. Fabrics 113
4.2.1.1. RED 114
4.2.1.2. WHITE 118
4.2.1.3. MULTI-COLOURED 121
4.2.2. Jewellery 124

4.2.3. Cosmetics 128
4.2.4. Gemstones 135
4.2.5. Summary 137
4.3. Matter *consumed* by the Body 137
4.3.1. Esau and "Stew" 138
4.3.2. Wine 140
4.3.3. Bread 142
4.3.4. Summary 143
4.4. Summary 144

5. Provenance of Colour 147
5.1. Indigenous Colour Terms 154
5.2. Foreign Colour Terms 157
5.2.1. Aramaic, Akkadian and Mesopotamia 158
5.2.2. Persian and the Achaemenid Empire 170
5.2.3. Egyptian and Ancient Egypt 175
5.2.4. "Unprovenanced" 183
5.3. Summary 187

6. Colour, Calamity and Cosmos 190
6.1. Ezekiel 27 191
6.1.1. The Splendour of the Ship 194
6.1.2. The Sinking of the Ship 197
6.2. Exodus 28 200
6.3. Lamentations 4 208
6.4. Ezekiel 1 213
6.5. Summary 221

7. Conclusion 224
Appendices 230
Bibliography 250

Abbreviations

AA	*American Anthropologist*
AB	Anchor Bible
ABD	*Anchor Bible Dictionary.* Edited by David Noel Freedman. 6 vols. New York: Doubleday, 1992.
AfO	*Archiv für Orientforschung*
AIL	Ancient Israel and its Literature
ANEM	Ancient Near East Monographs
ANES	Ancient Near Eastern Studies
AOTC	Abingdon Old Testament Commentaries
AOAT	Alter Orient und Altes Testament
BA	*Biblical Archaeologist*
BAR	*Biblical Archaeology Review*
BARIS	BAR (British Archaeological Reports) International Series
BASOR	*Bulletin of the American Schools of Oriental Research*
BBR	*Bulletin for Biblical Research*
BBRSup	Bulletin for Biblical Research Supplements
BDB	Brown, Francis., S.R. Driver, and Charles A. Briggs. *The Brown-Driver-Briggs Hebrew and English Lexicon*. Peabody, MA: Hendrickson Publishers, 2015, 1906.
BHS	*Biblia Hebraica Stuttgartensia.* Edited by Karl Elliger and Wilhelm Rudolph. Stuttgart: Deutsche Bibelgesellschaft, 1983.
BibInt	*Biblical Interpretation*
BibInt	Biblical Interpretation Series

BibOr	Biblica et Orientalia
BLS	Bible and Literature Series
BN	*Biblische Notizen*
BO	*Bibliotheca Orientalis*
BTB	*Biblical Theology Bulletin*
BZAW	Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft
CAD	*The Assyrian Dictionary of the Oriental Institute of the University of Chicago.* Edited by Martha T. Roth. 21 vols. Chicago, IL: The Oriental Institute of the University of Chicago, 1956–2006.
CBC	Cambridge Bible Commentary
CBQ	*Catholic Bible Quarterly*
CHANE	Culture and History of the Ancient Near East
CJ	*Classical Journal*
ClQ	*Classical Quarterly*
CM	Cuneiform Monographs
CP	*Classical Philology*
CW	*Classical World*
DCH	*Dictionary of Classical Hebrew.* Edited by David J.A. Clines. 9 vols. Sheffield: Sheffield Phoenix Press, 1993–2014.
DNWSI	*Dictionary of North-West Semitic Inscriptions*. Jacob Hoftijzer and Karel Jongeling. 2 vols. Leiden: Brill, 1995.
EDB	*Eerdmans Dictionary of the Bible*. Edited by David Noel Freedman, Grand Rapids, MI: Eerdmans, 2000.
ExAud	*Ex Auditu*
ExpTim	*Expository Times*

FCB	Feminist Companion to the Bible
GR	*Greece and Rome*
HALOT	*The Hebrew and Aramaic Lexicon of the Old Testament*. Ludwig Köehler, Walter Baumgartner, and Johann J. Stamm. Translated by Mervyn E.J. Richardson. 2 vols. Leiden: Brill, 2001.
HAR	*Hebrew Annual Review*
HCOT	Historical Commentary on the Old Testament
HeBAI	*Hebrew Bible and Ancient Israel*
HS	*Hebrew Studies*
HSM	Harvard Semitic Monographs
HSS	Harvard Semitic Studies
HTR	*Harvard Theological Review*
HUCA	*Hebrew Union College Annual*
IDB	*The Interpreter's Dictionary of the Bible.* Edited by George A. Buttrick. 4 vols. New York: Abingdon, 1976.
ISBE	*International Standard Bible Encyclopedia.* Edited by Geoffrey W. Bromiley. 4 vols. Grand Rapids, MI: Eerdmans, 1979–1988.
JANEH	*Journal of Ancient Near Eastern History*
JAOS	*Journal of the American Oriental Society*
JBL	*Journal of Biblical Literature*
JBQ	*Jewish Bible Quarterly*
JCS	*Journal of Cuneiform Studies*
JESHO	*Journal of the Economic and Social History of the Orient*
JETS	*Journal of the Evangelical Theological Society*
JHebS	*Journal of Hebrew Scriptures*

JHS	*Journal of Hellenic Studies*
JJS	*Journal of Jewish Studies*
JNES	*Journal of Near Eastern Studies*
JNSL	*Journal of Northwest Semitic Languages*
JSOT	*Journal for the Study of the Old Testament*
JSOTSup	Journal for the Study of the Old Testament Supplement Series
KTU	*Die keilalphabetischen Texte aus Ugarit.* Edited by Manfried Dietrich, Oswald Loretz, and Joaquín Sanmartín. Münster: Ugarit-Verlag, 2013.
LHBOTS	The Library of the Hebrew Bible/Old Testament Studies
LSAWS	Linguistic Studies in Ancient West Semitic
MH	*Museum Helveticum*
MnemSup	Mnemosyne Supplement
NICOT	New International Commentary on the Old Testament
NTS	*New Testament Studies*
OBO	Orbis Biblicus et Orientalis
OTE	*Old Testament Essays*
OTL	Old Testament Library
OTM	Old Testament Message
OtSt	Oudtestamentische Studiën
PEQ	*Palestine Exploration Quarterly*
PSD	*The Sumerian Dictionary of the University Museum of the University of Pennsylvania.* Edited by Åke W. Sjöberg with the collaboration of Hermann Behrens. Philadelphia: Babylonian Section of the University Museum, 1884–. Restructured into an online endeavour.

RlA	*Reallexkion der Assyriologie*. Edited by Erich Ebeling et al. Berlin: de Gruyter, 1928–
SBLDS	Society of Biblical Literature Dissertation Series
SJOT	*Scandinavian Journal of the Old Testament*
SSN	Studia Semitica Neerlandica
StBibLit	Studies in Biblical Literature (Lang)
TA	*Tel Aviv*
TDOT	*Theological Dictionary of the Old Testament*. Edited by G. Johannes Botterweck and Helmer Ringgren. Translated by John T. Willis et al. 16 vols. Grand Rapids, MI: Eerdmans, 1974–2018.
TOTC	Tyndale Old Testament Commentaries
UCOP	University of Cambridge Oriental Publications
UF	*Ugarit-Forschungen*
UT	*Ugaritic Textbook.* Cyrus H. Gordon. Rome: Pontifical Biblical Institute, 1965.
VT	*Vetus Testamentum*
VTSup	Supplements to Vetus Testamentum
WBC	World Biblical Commentary
WO	*Die Welt des Orients*
ZAH	*Zeitschrift für Althebraistik*
ZAW	*Zeitschrift für die alttestamentliche Wissenschaft*

List of Tables and Maps

Table One: Evidence of Colour Terminology in the *Iliad* and *Odyssey* 50

Table Two: Evidence of Colour Terms in the *Histories* 56

Table Three: Evidence of Colour Terms in the *BHS* 60

Table Four: Occurrences of Colour Words in the *Iliad* and *Odyssey* 230

Table Five: Dictionary Definitions of Colour Words in the *Iliad* and *Odyssey* 233

Table Six: Occurrences of Colour Words in the *Histories* 237

Table Seven: Dictionary Definitions of Colour Words in the *Histories* 238

Table Eight: Occurrences of Colour Words in the *BHS* 240

Table Nine: Dictionary Definitions of Colour Words in the *BHS* 245

Map One: General Map of the Ancient Near East 153

1. Introduction

The German philologist Lazarus Geiger died in 1870 before he could complete his study on ancient colour perception. Geiger had examined the descriptions of colour in ancient texts from different cultures and compared them, including Homeric epic and the Hebrew Bible. He observed a number of peculiarities: e.g. both corpora lacked a "blue" colour; Homer's oxen were "wine-coloured" compared to the "red horses" and a "red heifer without spot" in the biblical texts.[1] He also observed that Homer described faces "green with fear" and Jeremiah saw faces "turned green" with panic. Green is also evident in Homer's regular epithet "green honey", which Geiger argued could be compared to the "green gold" in the Psalms.[2] All of these examples are unusual descriptors: why is "blue" not mentioned, what have oxen to do with wine, why is "green" used for things that do not seem to suit greenness? Though many colour studies have been conducted since 1870, chromatic language in the Homeric and Biblical material has yet to be explored in a comparative and interdisciplinary study.

This thesis, therefore, picks up where Geiger left off filling a scholarly blind spot in the comparative study of colour over the past one hundred and fifty years. In doing so, this project explores discourses about the role of colour in Homeric Greek, Herodotus' *Histories*, and the Hebrew Bible. The following will analyse how colour was used and perceived by Homer and

[1] *Il.* 13.703; *Od.* 13.32; Zech 1:8; 6:2; Num 19:2; 161ff; Lazarus Geiger, "Ueber den Farbensinn der Urzeit und Seine Entwickelung. Gesprochen auf der Versammlung deutscher Naturforscher in Frankfurt a. M., den 24 September 1867," in *Zur Entwicklungsgeschichte der Menschheit*, ed. Lazarus Geiger (Stuttgart: Verlag der Cotta'schen Buchhandlung, 1871), 45–60 (48–53); translated and reprinted as *idem*., "On Colour-Sense in Primitive Times and its Development," in *Contributions to the History of the Development of the Human Race: Lectures and Dissertations*, ed. Lazarus Geiger, trans. David Asher (Boston, MA: Houghton, Mifflin & Co., 1880), 48–63 (51–6). These, and a few other of Geiger's works, were published posthumously by his brother Alfred Geiger.

[2] For "green" with fear, *Il.* 7.479; 8.77; 10.376; 15.4; 17.67; *Od.* 11.43, 633; 12.243; 22.42; 24.450, 533; Jer 30:6; for "green honey"/"green gold", *Il.* 11.630; *Od.* 10.234; Ps 68:14; Lazarus Geiger, *Ursprung und Entwickelung der menschlichen Sprache und Vernunft*, vol. 2 (Stuttgart: Verlag der Cotta'schen Buchhandlung, 1872), 388–9.

Herodotus in comparison to that of colour in the Hebrew Bible. Though Geiger only compared colour in Homer and the Hebrew Bible, I include Herodotus' *Histories* within this study for two reasons: 1) no scholar has previously looked at chromatic language in this piece of work; 2) like Homer with biblical poetry, it provides an early, prose-like historical piece of classical Greek work as a comparison to the historical narratives in the Hebrew Bible. Comparing these texts allows us to explore a range of alternative approaches to understanding colour in biblical passages, going beyond the discussion of individual colour words and colour categorisation, as has been the practice in previous Hebrew Bible scholarship. This thesis enriches our understanding of the biblical texts offering insights into cultural thought, traditions and identity. Ultimately, I argue for two theories in this study. Firstly, Greek textual descriptions of colour illustrate cultural formation and ideas. This intertwining of colour and culture can also be found in the Hebrew Bible. Building on this point, the second principle contends that descriptions of colour in the Hebrew Bible are central to understanding the portrayal of the human and the divine. Theologically speaking, chromatic language differs when texts use colour to describe the physical human body compared to the visions of YHWH and his messengers. By building on Geiger's work, this thesis will deepen our understanding of how authors in the ancient world used and perceived colour. This in turn, tells us about cultural and theological values.

1.1. Previous Colour Studies

1.1.1. Nineteenth-Century Theories of Colour

One hundred years after Isaac Newton published his conclusions about the nature of light in the *Opticks*,[3] J.W. Goethe redirected the study of colour away from the mechanics of colour perception towards the psychology of colour discrimination; he argued colour was formed in

[3] That colours of the spectrum could be recombined by a second lens back into white light, just as the first prism breaks white light into a spectrum of colours; Isaac Newton, *Opticks* (London: Sam Smith and Benj Walford, 1704).

our eye and mind.[4] Goethe studied ancient Greek colour vision, concluding that ancient Greeks derived all colours from white/light and black/darkness.[5] Further support for this theory came from William Gladstone's three-volume work on Homer, where he devoted a small section to examining Homer's use of colour. His thorough analysis led to five conclusions, one of which states that the Homeric colour system was founded upon light and darkness. Homer and his contemporaries perceived the world in something closer to black and white than the fully-fledged colour vision of the nineteenth-century British.[6] Furthermore, he claimed that the eye was but "partially developed among the Greeks of the heroic age", mostly because of the paucity of dyes, paints and flowers and only having the natural environment on which to base colours.[7] This work was a launchpad for colour theory, but many of his contemporaries unequivocally dismissed his conclusions on the grounds that the oddities in Homer could be attributed to poetic licence, and that Gladstone made too many assumptions about Homer's contribution to modern western society.[8]

However, some developed Gladstone's conclusions further, Geiger being one of them. In 1867, he asked, "do the human sensory organs function in the same way today as they did a thousand years ago?"[9] Geiger was convinced that colour perception was an acquired faculty and could be retraced through the study of ancient literature, such as the works of Homer, the Bible, Indian

[4] J.W. Goethe, *Zur Farbenlehre* (Tübingen: Cotta, 1810).
[5] *Ibid.*, 54–5.
[6] William Gladstone, *Studies on Homer and the Homeric Age: Volume III* (Oxford: Oxford University Press, 1858), 476–7.
[7] *Ibid.,* 488; expanded upon in *idem.*, "The Colour Sense," *The Nineteenth Century* 2 (1877): 366–88.
[8] Contra Gladstone, Grant Allen, *The Colour Sense: Its Origin and Development* (London: Trübner, 1879); Maurice Platnauer, "Greek Colour Perception," *ClQ* 15 (1921): 153–62; Florence E. Wallace, *Color in Homer and in Ancient Art: Preliminary Studies* (Northampton, MA: Collegiate Press, 1927), 82–3; A.E. Kober, "Some Remarks on Colour in Greek Poetry," *CW* 27 (1934): 189–91. An overall summary can be found in P.G. Maxwell-Stuart, *Studies in Greek Colour Terminology: Volume I, Glaukos*, MnemSup 65 (Leiden: Brill, 1981), 4.
[9] Geiger's opening questions: "Hat das menschliche Empfinden, hat dis Sinneswahrnehmung eine Geschichte? Ist in den menschlichen Sinnesorganen vor Jahrtausenden Alles ebenso verlaufen, wie es heute verläuft, ode rift vielleicht eine ferne urzeit nachweisbar, in welcher diese Organe zu manchen ihrer gegenwartigen Verrichtungen unfähig gewesen sein müssen." Geiger, "Ueber den Farbensinn," 45; *idem*., "On Colour-Sense," 48.

Vedic hymns and the Zend-Avesta. He took the popularity of "black", "white" and "red" within these texts to create a sequence of colour sensitivity: the most sensitive was "red", then "yellow", "green", and finally "blue" and "violet".

In 1877, Hugo Magnus built on Geiger's work and argued that colour vocabulary of ancient literary corpora indicated the state of development of human colour vision at the time they were composed. Neither Gladstone nor Geiger distinguished between the colour terms they found in ancient texts and the capacity to perceive colours. He linked philological analysis with evolutionary theory, proposing that over the centuries colours developed sequentially but in terms of luminous intensity: beginning with the most luminous – "red", "orange" and "yellow"; followed by colours of medium luminous intensity such as "greens", as distinct from "dark greens" and "pale greens"; and, finally, colours of low luminous intensity like "blue" and "violet".[10] According to Magnus, in the Homeric period, ancient people could completely perceive colours of high luminous intensity, and were beginning to perceive colours in the mid-range.[11]

In sum, the late nineteenth century saw a rapid increase in speculation about colour perception.[12] Geiger and Magnus were particularly influenced by Gladstone, they sought to

[10] Hugo Magnus, *Die geschichtliche Entwickelung des Farbensinnes* (Leipzing: von Veit, 1877), 9–41; *idem*., *Untersuchungen über den Farbensinn der Naturvölker* (Jena: Gustav Fischer, 1880); cf. Roger Schöntag and Barbara Schäfer–Prieß, "Color Term Research of Hugo Magnus," in *Anthropology of Color: Interdisciplinary Multilevel Modeling*, eds. Robert E. MacLaury, Galina V. Paramei and Don Dedrick (Philadelphia, PA: John Benjamins, 2007), 101–22 (109–10).

[11] Elizabeth Henry Bellmer, "The Statesman and the Ophthalmologist: Gladstone and Magnus on the Evolution of Human Colour Vision, One Small Episode of the Nineteenth-Century Darwinian Debate," *Annals of Science* 56 (1999): 25–45 (30). cf. Rivers who backed the sequence up with anthropological research, W.H.R. Rivers, *Reports of the Cambridge Anthropological Expedition to Torres Straits: Volume II* (Cambridge: Cambridge University Press, 1901).

[12] See Guy Deutscher, *Through the Language Glass: How Words Colour Your World* (London: Arrow, 2010), 1–126; Melissa Funke, "Colourblind: The Use of Greek Colour Terminology in Cultural Linguistics in the Late Nineteenth and Early Twentieth Centuries," in *Brills Companion to Classics and Early Anthropology*, ed. Emily Varto (Leiden: Brill, 2018), 255–76.

explain the development of colour nomenclature within various cultures, continuing to use Homeric epic as a starting point.[13] These theories about ancient perception of colour can be summarised by two points: 1) the prevailing nineteenth-century ideas argued ancient Greek colour theory was dominated by black and white. When other colours emerged, a sequence beginning with black and white, described how colour develops in any language; 2) this sequence revolved around luminosity or brightness, rather than hue.

1.1.2. Relativism v Universalism

Charles Darwin's theory of evolution had a major influence on nineteenth-century thought, as scholars speculated how colours developed. These ideas continued well into the twentieth century, particularly when anthropologists wanted to develop their own theory on colour evolution and began using physical stimulus materials like coloured paper, wool and Munsell colour chips.[14] Anthropologists divided into two broad positions on the development of language: "relativism" and "universalism". The former emphasised the influence of culture in shaping language and thought; the latter argued that colour categories are based on human vision and prototypical features of the environment.

Linguistic relativity theory, in its developed form, is often referred to as the "Sapir-Whorf hypothesis", named after Edward Sapir and Benjamin Lee Whorf.[15] When studying North

[13] Interestingly, biblical scholars did not explicitly feature in these discussions about colour, leaving a gap.
[14] A full Munsell colour set has 1,600 chips that "radiate in 40 directions on 8 levels of brightness around a neutral vertical shaft such that they represent regular psychological intervals throughout a three-dimensional 'solid' of hue, brightness, and saturation," Robert E. MacLaury, "From Brightness to Hue: An Explanatory Model of Color-Category Evolution," *Current Anthropology* 33 (1992): 137–86 (138a).
[15] Edward Sapir, *Language: An Introduction to the Study of Speech* (New York: Harcourt, Brace, 1921); *idem*., "The Status of Linguistics as a Science," *Language* 5 (1929): 207–14; *idem*., *Culture, Language and Personality: Selected Essays* (Berkeley, CA: University of California Press, 1961); John B. Carroll, ed., *Language, Thought and Reality: Essays by Benjamin Lee Whorf* (Cambridge, MA: MIT Press, 1956). Cf. Franz Boas, "The Methods of Ethnology," *AA* 22 (1920): 311–21. Arguably, this idea that cultures shape the way their speakers think originated from Wilhelm von Humboldt, Johann George Hamann and Johann Gottfried Herder much earlier, see Roger Langham Brown, *Wilhem von Humboldt's Conception of Linguistic Relativity* (Netherlands: Mouton & Co., 1967).

American indigenous languages, they developed a theory where words in two languages are not two different labels attached to external objects that communicate the same reality, but express two altogether different world views.[16] Cultural influences can affect language and thought to various degrees: the mild form of linguistic determinism suggests that language *influences* thought, but the extreme form suggests that language *determines* thought.[17] For example, Gladstone would have assumed that a speaker of a language without a word for "blue" indicated that they had no perception of blue; however, Sapir-Whorf argued the speaker would have no cognition of blue or the concept of blueness *because* they had no principal "blue" term available to create such a concept.[18] Since then, many relativists have investigated colour categorisation, developing the idea that cultural practices are a crucial mediating force in the classification of colour.[19]

On the other side of the debate, Brent Berlin and Paul Kay produced a study that challenged linguistic relativism.[20] After conducting a series of anthropological surveys into a range of

[16] Sapir, "The Status," 209; cf. C.P. Biggam, *The Semantics of Colour: A Historical Approach* (Cambridge: Cambridge University Press, 2012), 17–9; John A. Lucy, *Language Diversity and Thought: A Reformulation of the Linguistic Relativity Hypothesis*, (Cambridge: Cambridge University Press, 1992), 11–68.
[17] Benjamin Lee Whorf, "Language, Mind, and Reality (1941)," in Carroll, *Language*, 246–70 (257); cf. the foundational research on cognitive linguistics from George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind* (Chicago, IL: University of Chicago Press, 1987), 304–37; *idem.*, *Ten Lectures on Cognitive Linguistics* (Leiden: Brill, 2018); and Lakoff's more recent application of cognitive linguistics to American politics, George Lakoff, *The All New Don't Think of An Elephant! Know your Values and Frame the Debate* (White River Junction, VT: Chelsea Green Publishing, 2004, 2014).
[18] Biggam, *Semantics*, 18. Lakoff (*Ten Lectures*, 25, 117) furthers this in suggesting colour is an interactive property, it is not just a matter of wavelengths that are reflected, but the way multiple wavelengths hit your retinas and the neural circuitry in one's eyes that gives rise to an experience one has internally. That is, all colours have to do with the interaction between oneself and the world. For example, take a blue chair, part of the brain computes the structure of a chair, the image of a chair, and part of the brain computes colour. One's brain has to be able to link them up so there is a single object of a blue chair. The name for this process is called neural binding. The chair is blue if it is in the set of blue things in the world. Blue and all the colours have to do with the interaction between you and the world.
[19] See Lucy, *Language*; *idem*., "The Linguistics of 'Color'," in *Color Categories in Thought and Language*, eds. C.L. Hardin and Luisa Maffi (Cambridge: Cambridge University Press, 1997), 321–46; Debi Roberson, Ian R.L. Davies and Jules Davidoff, "Color Categories Are Not Universal: Replications and New Evidence from a Stone-Age Culture," *Journal of Experimental Psychology: General* 129 (2000): 369–98; Debi Roberson, Jules Davidoff, Ian R.L. Davies and Laura R. Shapiro, "Color Categories: Evidence for the Cultural Relativity Hypothesis," *Cognitive Psychology* 50 (2005): 378–411.
[20] Brent Berlin and Paul Kay, *Basic Color Terms: Their Universality and Evolution* (Berkeley, CA: University of California Press, 1969).

languages,[21] they created a series of criteria that defines a Basic Colour Term within *any* given language.[22] Once one can distinguish Basic from Non-Basic colour terms, generalisations begin to appear. One such generalisation is that a definite number of universal Basic Colour Categories are found in all human cultures,[23] and the Basic Colour Terms for these categories evolve in a fixed, seven-stage order, derived from the sequences set out by Geiger and Magnus a century prior.[24] Basic Colour Categories are concepts in the mind, belonging to the cognitive domain, whereas Basic Colour Terms are words and expressions, which belong to the linguistic domain. Within these Basic Colour Categories, there is always a psychologically salient focal colour: e.g. within the category RED, the central colour would be represented by the best, most saturated (i.e., the most pure and vivid) "red".[25] In linguistics, to distinguish between Basic Colour Categories and Basic Colour Terms, in print the former are written usually as SMALL CAPITALS and the latter in *Italics*.[26] I adopt this notion throughout this thesis, though my

[21] For an overview, see John Hartley, *The Semantics of Ancient Hebrew Colour Lexemes*, ANES 33 (Louvain: Peeters, 2010), 7–13; Don Dedrick, *Naming the Rainbow: Colour Language, Colour Science and Culture* (Dordrecht: Kluwer Academic, 1998), 77; Biggam, *Semantics*, 19–20, 71–4; Lakoff, *Women*, 24–6.

[22] Berlin and Kay, *Basic*, 6. The characteristics of a Basic Colour Term exhibit the following: i) it must be monolexemic, i.e., only consist of one morpheme, e.g. green not dark green; ii) the colour referred to by the term must not be contained within another colour, e.g. scarlet is contained within red; iii) it must not be restricted to a narrow class of objects, such as blonde to hair, wood etc.; iv) it must be psychologically salient (common and generally known), e.g. yellow compared to saffron. Cf. their set of sub-criteria to cover "doubtful cases".

[23] There are eleven Basic Colour Categories: WHITE, BLACK, RED, GREEN, YELLOW, BLUE, BROWN, PURPLE, PINK, ORANGE and GREY. Basic Colour Terms are labels which enable concepts to be communicated to others who understand the same language.

[24] Berlin and Kay's (*Basic*, 4) evolutionary sequence of Basic Colour Terms was as follows:
Stage One: "black" and "white"
Stage Two: + "red"
Stage Three: + "green" or "yellow"
Stage Four: + "yellow or "green"
Stage Five: + "blue"
Stage Six: + "brown"
Stage Seven: + "purple" and/or "pink" and/or "orange" and/or "grey".

[25] See Eleanor Heider, "'Focal' Colour Area and the Development of Color Names," *Developmental Psychology* 4 (1971): 447–55; *idem*., "Universals in Color Naming and Memory," *Journal of Experimental Psychology* 93 (1972): 10–20; cf. Paul Kay and Chad K. McDaniel, "The Linguistic Significance of the Meanings of Basic Color Terms," *Language* 54 (1978): 610–46; Robert MacLaury, "Introducing Vantage Theory," *Language Sciences* 24 (2002): 493–536; *idem*., "Vantage Theory in Outline," in *Vantage Theory: A View on Language, Cognition and Categorization*, eds. Adam Głaz, Marnie L. Moist and Elena Tribushina (Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2013), 66–136.

[26] Biggam, *Semantics*, 20.

translations of Basic Colour Terms are in quotation marks. For example: Basic Colour Category - RED; Basic Colour Term - אדם; Basic Colour Term translation - "red".

Like nineteenth-century thought, the research of Berlin and Kay sparked a number of critiques.[27] Gladstone, Geiger and Magnus thought one could get universals from examining only literary evidence, whereas Berlin and Kay argued for generalisations based solely on anthropological research. However, the diversity of rich literary corpora in the ancient world and the inability to conduct anthropological research means it is extremely difficult to determine any universal truths about colour in antiquity. Studying ancient Greek and Hebrew colour perception will inevitably lean towards the relative side of this debate, revealing nuances about a culture's psyche and mode of thought.

1.1.3. Colour in the Hebrew Bible and the Ancient Near East

Though there was an earlier article on colour in the biblical texts,[28] Roland Gradwohl was the first to write a monograph on chromatic language in the Hebrew Bible.[29] He examined a series of colour terms from a diachronic perspective, focusing on etymological analysis. He also attempted to define chronological stages in the use of colour terms, allocating them to various time periods, ranging from an early stage (i.e., pre-Davidic), to pre-exilic, exilic and post-exilic periods, concluding that RED was the most developed colour category.[30] Athalya Brenner argued

[27] Such as, twenty languages were too few to make global conclusions; the informants within these languages were too few to gain sufficient data; the data might be skewed because the speakers were all bilingual and spoke English; and their study took place in Berkeley, California rather than the native environment of the informants; Hartley*, Semantics*, 13; cf. Heider, "Universals," 13, 19; Dedrick, *Naming*, 160–78.
[28] A. Guillaumont, "La designation des couleurs en hébreu et an arameén," in *Problèmes de la couleur: exposes et discussions du collque du Centre de Recherches de psychologie comparative (mai 1954)*, ed. I. Meyerson (Paris: SEVPEN, 1957), 339–49. Some articles were published after Gradwohl that also touch on colour: G. Scholem, "Farben und ihre Symbolik in der jüdischen Überlieferung und Mystik," *Eranos-Jahrbuch* 41 (1972): 1–49; P. Fronzaroli, "Sulla Struttura dei colori in Ebraico Biblico," *Studi Linguistici in onore di Vittore Pisani* 1 (1969): 377–89.
[29] Roland Gradwohl, *Die Farben im Alten Testament: eine terminologische Studie* (Berlin: Töpelmann, 1963).
[30] *Ibid*., 90.

that this needed revising and offered an alternative chronological distribution whereby in the pre-exilic period there were Basic Colour Terms אדם ("red") and לבן ("white"); in the exilic and post-exilic periods there were three Basic Colour Categories אדום (RED), לבן (WHITE) and שׁחר (BLACK), with the addition of two new Basic Colour Terms that were just arriving on the scene ירוק ("green") and צהב ("yellow").[31] Brenner was the first to define Basic Colour Terms in the Hebrew Bible, adapting Berlin and Kay's criteria and applying it to Biblical Hebrew. Brenner categorised Hebrew colour terms into primary, secondary and tertiary classes,[32] plus those that fall into "man-made colours" (like paints, dyes or gemstones) and "indirect colour connotations" (such as personal names).[33] She interpreted each of these colours through examining their context in the Hebrew Bible and their cognates elsewhere in the ancient Near East.

Maria Bulakh combined the works of both Gradwohl and Brenner and analysed Basic Colour Terms in Biblical Hebrew. She examined the occurrences of לבן ("white"), שׁחר ("black"), אדום ("red"), ירוק ("yellow-with-green"), and צהב ("yellow") as Basic Colour Terms, exploring the etymology of the terms and their occurrences in other ancient languages.[34] Bulakh argued that the Hebrew Basic Colour Term system is a transitional one from Proto-Semitic through all stages of Biblical Hebrew, hence why all Hebrew Basic Colour Term's have "more or less"

[31] Athalya Brenner, *Colour Terms in the Old Testament*, JSOTSup 21 (Sheffield: JSOT Press, 1982), 77. It should be noted that Brenner reconstructs "black" for the Basic Colour Term system of pre-exilic Hebrew suggesting that its absence in the texts of this period is purely "accidental."

[32] Brenner uses the terminology "primary" rather than "basic" and rewords Berlin and Kay's criteria to fit to Biblical Hebrew. "Secondary" and "tertiary" levels of classification are based on further criteria.

[33] Brenner, *Colour Terms*; cf. her other works: *idem*., "White Textiles in the Old Testament," *HAR* 4 (1980): 39–44; *idem*., "My Beloved is Fair and Ruddy: On Song of Songs 5.10–11," *Beth Miqra* 89–90 (1982): 168–73; *idem*., "On Colour and the Sacred in the Hebrew Bible," in *The Language of Color in the Mediterranean: An Anthology on Linguistic and Ethnographic Aspects of Color Terms*, ed. Alexander Borg (Stockholm: Almqvist & Wiksell International, 1999), 200–7.

[34] Maria Bulakh, "Basic Color Terms of Biblical Hebrew in Diachronic Aspect," in *Babel und Bibel 3: Annual of Ancient Near Eastern, Old Testament, and Semitic Studies*, eds. L. Kogan et al. (Winona Lake, IN: Eisenbrauns, 2006), 181–216; *idem*., "Basic Color Terms from Proto-Semitic to Old Ethiopic," in MacLaury, Paramei and Dedrick, *Anthropology of Color*, 247–61; *idem*., "Etymological Notes on the Akkadian Colour Terms," in *Studia Semitica*, ed L. Kogan (Moscow: Russian State University for the Humanities, 2003), 3–17.

reliable Semitic etymology.[35] John Hartley adopted a similar approach to Brenner, paying greater attention to the ancient translations and taxonomy of colour terms.[36] He examined a selection of Hebrew colour words and divided them into lexemes for "dark"/"light" colours or "black"/"white" colours; followed by basic colour lexemes, colour words with restricted usage, foreign colour words, and non-colour lexemes. Each word received its own entry, aiming to ascertain the semantic parameters represented by each colour term. Both Bulakh and Hartley contributed to Basic Colour Terms in Biblical Hebrew, their etymology, and the influence of foreign cognates and other ancient texts on translation and perception.

Previous chromatic studies on colour in the ancient Near East are also sparse. Benno Landsberger collated Sumerian and Akkadian colour words and translated them into modern German equivalents. He concluded that Akkadian (and their Sumerian counterparts) had only five primary colour words, which often referred to multiple colours: *peṣû* ("white"), *ṣalmu* ("black"), *sāmu* ("red/brown"), *barmu* ("variegated") and (*w*)*arqu* ("yellow/green").[37] Only recently has a comprehensive study of colour in the ancient Near East been published. Shiyanthi Thavapalan's *The Meaning of Colour in Ancient Mesopotamia* addressed expressions for colours in the Akkadian language, differentiating between possible "abstract" understandings and the materiality of colour in the ancient Near East.[38] She has drawn attention to the material foundations of culture, such as architecture, art, clothing and jewellery, to understand further how people lived and thought.

[35] Bulakh, "Basic Color Terms," 184.
[36] Hartley*, Semantics*.
[37] Benno Landsberger, "Über Farben im Sumerisch–Akkadischen," *JCS* 21 (1967): 139–73; cf. Erich Ebeling, "Farben" *RlA* 19–20; Eckhard Unger, "Farben (Symbolik)," *RlA* 24–26.
[38] Shiyanthi Thavapalan, *The Meaning of Colour in Ancient Mesopotamia*, CHANE 104 (Leiden: Brill, 2019).

Wolfgang Schenkel and David Warburton both analysed the relationship between abstract colour terms and the materials available in the Egyptian world.[39] Stefan Baumann's book on Egyptian temple decoration catalogued materials used in Egypt during the Greco-Roman times, discussing at length their provenance.[40] This thesis will adopt a similar approach to Thavapalan, Schenkel and Warburton in highlighting the significance of materiality in relation to colour terms, as well as Baumann's, in focussing on the provenance of colour materials and their linguistic connotations in the ancient world.

In sum, previous works on colour in the Hebrew Bible examine a selection of colour terms in the biblical texts. Whilst studies on colour in the ancient Near East and ancient Egypt indicate the significance of the materiality of colour. There are advantages to be gained by discussing biblical colour terms and materials in relation to their surrounding contexts; doing so tells us about that particular culture's way of interacting with materials and understanding colour. All of these works highlight the need for a study of the Hebrew Bible that looks at semantic uses of colour terms and materials within the texts themselves, rather than just categorising colour words.

---

[39] Wolfgang Schenkel, "Color Terms in Ancient Egypt and Coptic," in MacLaury, Paramei and Dedrick, *Anthropology of Color*, 211–28; *idem*., "Die Farben in ägyptischer Kunst und Sprache," *Zeitschrift für Ägyptische Sprache* 88 (1963): 131–47; *idem*., "Colours as Viewed by the Ancient Egyptians and the Explanation of this View as Seen by Academics Studying Colour," in *The Value of Colour: Material and Economic Aspects in the Ancient World*, eds. Shiyanthi Thavapalan and David A. Warburton (Berlin: EditionTopoi, 2019), 35–54. David A. Warburton, "The Origins, Development, Diffusion and Significance of Early Color Terminology," in *Essays in Global Color History*, ed. Rachael B. Goldman (Piscataway, NJ: Gorgias Press, 2016), 65–96; *idem*., "Colours in Bronze-Age Egyptian Art and Language," in *Circumlitio: The Polychromy of Antique and Mediaeval Sculpture*, eds. Vinzenz Brinkmann, Oliver Primavesi and Max Hollein (Frankfurt: Schriftenreihe der Liebighaus Skulpturensammlung, 2010), 170–87; *idem*., "The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory," *Lingua Aegyptia* 16 (2008): 213–59; *idem.*, "Colourful Meaning: Terminology, Abstraction and the Near Eastern Bronze Age," in *Excavating the Mind: Cross-Sections through Culture, Cognition and Materiality*, eds. Niels Johannsen, Mads D. Jessen and Helle Juel Jensen (Aarhus: Aarhus University Press, 2012), 183–208; *idem.*, "Basic Color Term Evolution in Light of Ancient Evidence from the Near East," in, MacLaury, Paramei and Dedrick, *Anthropology of Color*, 229–46. See also John Baines, "Color Terminology and Color Classification: Ancient Egyptian Color Terminology and Polychromy," *AA* 87 (1985): 282–97.

[40] Stefan Baumann, *Schatzkammern. Ihre Dekoration und Raumkonzeption in ägyptischen Tempeln der griechisch-römischen Zeit* (Wiesbaden: Harrassowitz Verlag, 2018).

1.1.4. Colour in the Greco-Roman World

Since the work of Gladstone, chromatic studies have largely endeavoured to rehabilitate Greek colour vision and argue that it was not primitive or deficient.[41] In doing so, there are many studies that address colour categorisation in the Greek material.[42] A rich variety of studies show how the ancient Greeks used colour and how the semiotics of colour relate to broader cultural studies within ancient Greece. Greek colour perception is also discussed in other disciplines such as art history (i.e., the colour choice in paintings), or in relation to other ancient languages such as Latin. This section lays out the principal previous studies on: 1) Greek colour categorisation; and 2) how Greek colour perception relates to the broader themes in ancient Greece, art history, and Latin colour words and ancient Rome.

1.1.4.1. Greek Colour Categorisation

Eleanor Irwin examined the significance of "black" and "white" in Greek poetry and their relationship to "dark" and "light", before analysing the greens/blues that are "peculiarly lacking" in the early periods.[43] She concluded that the value of a colour (i.e., the brightness of a colour), as well as the sheen of a surface and luminosity, played a vital role in how colour was understood and used in ancient Greece.

---

[41] Some twentieth century works on colour perception in ancient Greece are worth mentioning: Platnauer ("Greek Colour Perception," 153–62) suggested the difference between colour descriptions in Greek prose and poetry from Homer to Xenophon was quantitative rather than qualitative. He argued colour terms are found between "black" and "white". As far as I am aware, he was the first to point out that ancient colour perception differs from ours today whereby many Greek colour epithets are not just colour epithets but also have another meaning often one that is not visual. Kober highlighted the possibility of "non-colour" aspects within a term; A.E. Kober, *The Use of Color Terms in the Greek Poets, Including all the Poets from Homer to 146 B.C., Except the Epigrammatists* (Geneva, NY: W.F. Humphrey Press, 1932).

[42] These studies branch into New Testament Greek: Ureña discusses colour terms in the New Testament, as colour is sparse and functions differently in different situations. The Gospels, Acts and the Letters use five colours: λευκος ("white") 9 times; μελας ("black") 4 times; κοκκινος ("scarlet") twice; πορφυρεος ("purple") twice; and χλωρος ("green") once. In the Apocalypse, colour is vividly used to help the audience/readers to visualise the revelations happening, creating an "aural" effect; Lourdes García Ureña, "Colour Adjectives in the New Testament," *NTS* 61 (2015): 219–38.

[43] Eleanor Irwin, *Colour Terms in Greek Poetry* (Toronto, ON: Hunter Rose Company, 1974), 30.

P.G. Maxwell-Stuart published two volumes scrutinising Greek colour terminology in the prose and poetry of antiquity, and tried to assign a precise colour meaning to two disputed terms, γλαυκος and χαροπος.[44] He established that the meaning and interpretation of colour words in prose could be different from that of poetry. If the meaning of the colour word in the prose did not apply to poetry, he concluded that poetic licence must be at play.[45] This methodology is also applicable to the Hebrew Bible, which is comprised of multiple literary compositions including poetry and prose.

Michael Clarke turned to the works of Berlin and Kay and Heider-Rosch, and focussed on their arguments of the prototype theory (where certain colours of a particular Basic Colour Category are more central than others and the focal area represents the best example of the category).[46] Clarke argued that some ancient Greek colour words "satisfactorily" map onto a Munsell chart – such as ερυθρος ("red"), λευκος ("white"), and μελας ("black"). However, others are difficult to translate and cannot be mapped onto a chart of colour chips. He used the example of the colour category χλωρος ("GREEN"/"YELLOW"), which is employed by Homer in contexts of vegetation, honey and the faces of terrified people,[47] but is also found in other ancient Greek texts describing red wine, blood, tears, flowers, and human limbs.[48] He argued that the focal point of the category χλωρος was not a static hue (as Berlin and Kay and Heider-Rosch suggested) but rather a dynamic point centred on the "fecund oozing green vitality". All of the

[44] Maxwell-Stuart, *Studies: Volume 1*; P.G. Maxwell-Stuart, *Studies in Greek Colour Terminology: Volume 2, Charopos*, MnemSup 67 (Leiden: Brill, 1981); cf. Gerhard Reiter, *Die Griechischen Bezeichnungen der Farben Weiss, Grau und Braun* (Innsbruck: Wagner Universitätsverlag, 1962).
[45] On how metaphor relates to cognitive linguistics and cultural relativism, see George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, IL: University of Chicago Press, 1980).
[46] Michael Clarke, "The Semantics of Colour in the Early Greek Word-Hoard," in *Colour in the Ancient Mediterranean World*, ed. Liza Cleland and Karen Stears (Oxford: John and Eric Hedges, 2004), 131–9.
[47] *Il.* 11.631; *Od.* 10:234; *Il.* 10.376.
[48] Eur. *Cycl.* 67; Soph. *Trach.* 1055; Eur. *Med.* 906, 922; Eur. *Hel.* 244; Theoc. 14.70, 27.67 respectively.

occurrences could relate to this prototype in some way. For example, the use of χλωρος for honey can be explained by its fecundity, possible greenness and oozing nature, whereas the use of χλωρος for blood can be included in this category because of its ooze and vitality, rather than greenness.[49] He does the same for αργος ("GLEAMING WHITE") which has the prototype "the flashing of light in swift darting motion" covering occurrences such as bolts of lightning, limbs of animals moving swiftly, and the quality of light reflected in white-washed walls and the body of a goose.[50] This framework, though perhaps arbitrary in places, offers an alternative way of understanding and interpreting ancient colour words.

1.1.4.2. Greek Colour Words and Ancient Greece

Previous Greco-Roman scholarship on chromatic language suggests that colour (and other sensory categories) are useful components for understanding aspects of the Greco-Roman world, including their traditions, rituals, identity, and thought. Adeline Grand-Clément's *La fabrique des couleurs* explores the significance of poetry in relation to emotions and the senses.[51] When colour is used in Homeric epic for example, it is an emotive experience. She particularly pays attention to the role colours play in Greek cities, their construction and social relations, showing how chromatic language indicates social status and identity. Grand-Clément then devotes a chapter to studying colour in relation to the body, particularly regarding the colour of skin and hair. She demonstrates that the materiality of colour plays a significant part in the representation of cultural values towards ancient cities and bodies.

[49] Cf. Lourdes García Ureña, "χλωρος y su riqueza cromática en la septuaginta," *Τι ἡμιν και σοι; Lo que hay entre tú y nosotros. Estudios en honour a María Victoria Spottorno* (2016): 119–31.
[50] *Il.* 19.121; 18.578; 2.647; *Od.* 15.161, Clarke, "Semantics," 136; cf. Irwin, *Colour*, 31–78; Mark Bradley, *Colour and Meaning in Ancient Rome* (Cambridge: Cambridge University Press, 2009).
[51] Adeline Grand-Clément, *La fabrique des couleurs. Histoire du paysage sensible des Grecs anciens* (Paris: De Boccard, 2011); cf. "Gold and Purple: Brilliance, Materiality and Agency of Color in Ancient Greece," in Goldman, *Essays in Global Color History*, 121–37.

These ideas go beyond the discipline of classics. John Gage's art-historical studies of colour and culture discussed ancient Greek colour perception and illustrated how colour theories were associated with other concepts like cosmology, mythology and technology.[52] He argued that early Greek philosophers used colour to aid their theories: Empedocles followed a Pythagorean scheme of 'primary' colours, suggesting that μελας ("black"), λευκος ("white"), ερυθρος ("red") and ωχρον (a term thought to designate hues from "red" to "yellow" and "green") equated with the four elements: earth, air, fire and water. Democritus also spoke of four colours and related μελας ("black") to roughness, λευκος ("white") to smoothness, ερυθρος ("red") to heat, and χλωρον ("green/yellow") which was composed of both "the solid and the void."[53] Thus, colour categorisation and usage affected cosmology and mythology, as did technological advances in dyes and pigments which proliferated colours. Colour was a cultural experience.

Liz James' *Light and Colour in Byzantine Art* explores this four-colour palette in ancient art, as she integrated the role of colour in antiquity alongside its expression in Byzantine art.[54] Her discussions corroborated the idea that Greek colour words were primarily concerned with light and dark, and that colour was not defined extensively by its hue but also brilliance and saturation. James also examined the colour symbolism behind the rainbow in Byzantine art, which can be divided into "naturalistic" and "non-naturalistic" rainbows. The comments surrounding the latter, discussed in representations of the Ascension, the Last Judgement and Christ in Glory, envisaged rainbows as a "manifestation of divine light."[55] The colours signify both light and divinity, which highlight the relationship colour has with the divine and cosmic realm.

---

[52] John Gage, *Colour and Culture: Practice and Meaning from Antiquity to Abstraction* (Berkley: University of California Press, 1993).
[53] Gage, *Colour*, 11–2.
[54] Liz James, *Light and Colour in Byzantine Art* (New York: Clarendon Press, 1995).
[55] *Ibid.*, 99.

1.1.4.3. Greek Colour Words, Latin Colour Words and Ancient Rome

Philological studies also highlight the connection between colour and culture. In particular, John Lyons' comparative philological study demonstrated Classical Greek and Latin colour words relate to Berlin and Kay's hypothesis of the eleven Basic Colour Terms. For example, χλωρος and *viridis* connected with Berlin and Kay's "green".[56] However, Lyons acknowledged that this is only in terms of general chromaticity; χλωρος and *viridis* played a more important role in colour vocabulary in their respective languages than just a "green" colour. These terms were a product of culture whereby philosophy, painting, pottery and weaving played a part in their interpretation and use. Thus, from Lyon's conclusions one sees how the relative understanding of colour is significant, and when interpreting colour in their respective pieces of literature, how materials aid this chromatic experience.

A significant quantity of scholarly literature also discusses Latin colour categories, beginning with Jacques André's *Étude sur les termes de couleur dans la langue Latine*. André examined the morphology and formations of Latin colour terms in prose and poetry, and listed Greek, Sanskrit and modern French equivalents. He often over-simplified the semantic range of each category.[57] Robert Edgeworth considered a whole range of problematic Latin colour terms and their meanings,[58] followed by Neculai Baran, who listed Latin colour terms chronologically by author to show the developments of terms and usage from Homer through to Latin literature.[59]

---

[56] John Lyons, "The Vocabulary of Color with Particular Reference to Ancient Greek and Classical Latin," in Borg, *The Language of Color*, 38–75.
[57] Jacques André, *Étude sur les Termes de Couleur dans la Langue Latine* (Paris: Libraire C. Klincksrieck, 1949).
[58] Robert J. Edgeworth, "What color is "*Ferrugineus*?"," *Glotta* 56 (1978): 297–305; *idem*., "Does "*Purpureus*" Mean "Bright"?," *Glotta* 57 (1979): 281–91; *idem*., "*Luteus*: Pink or Yellow?" *Glotta* 63 (1985): 212–20.
[59] Neculai V. Baran, "Les Caractéristiques essentielles du vocabulaire chromatique latin (aspect general, étapes de développement, sens figures, valeur stylistique, circulation)," *Aufstieg und Niedergang der Römischen Welt II* 29 (1983): 321–411.

All of these works categorise Latin colour words – but they also acknowledge the significance of Greek colour perception and use it as a launchpad for understanding Latin colour terms. For this thesis, chromatic studies in other ancient languages (aside from Greek and Hebrew) are a useful tool for methodological analogies such as examining colour in literary works rather than on living subjects and conducting a comparative study.

A more recent study that brings these methods together is Mark Bradley's cultural-historical discussion on the problems of Latin colour perception and interpretation. He focused primarily on linguistic categories to explore colour in relation to political, social and economic themes and developments in early Imperial Rome.[60] For example, Bradley demonstrates that the colour "purple" had a strong association with wealth, opulence and the politically powerful. Many scholars discuss the history of PURPLE, particularly Greek πορφυρα and Latin *purpura*, commonly translated as "sea-purple". Meyer Reinhold's wide-ranging and comprehensive study of purple across the ancient Near East, from the Assyrian period to the late Roman Empire, demonstrated that this colour of prestige had high economic value.[61] Heinke Stulz's *Die Farbe Purpur im frühen Griechentum* discussed Greek terms for PURPLE and RED and emphasised the inclusion of brightness and luminosity in translation.[62] She dwells on the materiality of PURPLE in Homer, which is particularly of interest to this study.[63] Similarly, Grand-Clément studied PURPLE in Homer, noting the brilliance and vibrance of the material and how it distinguished the heroes from the mortals. She emphasised a fundamental link between

[60] Modern abstract terms fail to communicate the nuance of Latin text, so Bradley (*Colour*, 11–2) argued for the colour term's association with material objects; *fulvus*, *viridis* and *caeruleus* were not "yellow", "green", or "sky-blue" which are the common translations, but "blonde" in reference to hair, "verdant" because of plants, and a "deep blue sea".
[61] That is, it was imported, exported, and was extremely valuable when buying or giving as gifts, Meyer Reinhold, *History of Purple as a Status Symbol in Antiquity* (Brussels: Latomus, 1970).
[62] Heinke Stulz, *Die Farbe Purpur im frühen Griechentum* (Stuttgart: Teubner, 1990), cf. Hartmut Blum, *Purpur als Statussymbol in der Griechischen Welt* (Bonn: Habelt, 1998).
[63] Stulz, *Die Farbe Purpur*, 96–120.

colour, brightness and literary use.[64] Lydia Pelletier-Michaud examined the poetic value of "sea-purple", showing how the significance of colour terms often lies in the poetic tradition.[65] She argued for similarities between the use of πορφυρεος in Homer and *purpureus* in Ovid; the association of prestige in "sea-purple" reappears in a new form, "vested with moral signification and an erotic quality".[66] These studies demonstrate the wide-ranging significance of PURPLE, as a linguistic colour category within Homer and other ancient Mediterranean texts, and because of its production value, its relation to royalty, and its value as a material.

This section has provided a brief overview to the diverse approaches to studying colour in the Greco-Roman world, and the comparatively small number of studies on colour in the Hebrew Bible and the ancient Near East. Scholarship on Greek and Latin categorisation of colour terms argues for colour in relation to broader cultural themes. Colour is a literary device that is in constant dialogue with motifs of ancient cities, bodies, wealth, status and identity among many others. Thus, there remains an important opportunity for a comparative study of colour categorisation in Greek texts and the Hebrew Bible, as well as a cultural approach to colour in the biblical texts.

1.1.5. Cultural Themes in the Hebrew Bible

So far, I have presented the current state of modern literature with regards to colour categorisation in the Hebrew Bible and in the Greco-Roman world. I have also acknowledged how colour and culture are strongly intertwined, as Greek and Latin colour words connect with themes that are fundamental to the study of ancient Greece and Rome. This has not yet been

[64] Adeline Grand-Clément, "Histoire du paysage sensible des Grecs à l'époque archaïque: Homère, les couleurs et l'exemple de *porphureos*," *Pallas* 65 (2004): 123–43.
[65] Lydia Pelletier-Michaud, "Colour me Greek: Poetic Value, Economy of Language and the Chromatic Vocabulary in Roman Elegy," in Thavapalan and Warburton, *The Value of Colour*, 283–310.
[66] *Ibid.*, 289.

explored in biblical chromatic studies. We do see a glimpse of it in Ehud Spanier's edited version of Isaac Herzog's doctoral dissertation, which looks at "porphyrology" (a term coined by Herzog for the study of purple) it's origins and archaeology, and the use of purple in the wider context of Israel/Judah.[67] Additionally, Scott Noegel's "Scarlet and Harlots: Seeing Red in the Hebrew Bible" analyses the semiotics of RED. He relates RED to stigmatised sexual behaviour, showing how the significance of blood (as a red-coloured material) encodes notions of protection, fertility and defilement.[68] This thesis follows Herzog, Noegel and Greco-Roman scholarship to tie colour to broader cultural themes reflected within the Hebrew Bible.

Noegel's comments on the relationship blood has with fertility, purity and taboos invites us to look at the relationship colour has with the body as a whole. The Hebrew body has been studied from a variety of angles,[69] but the materiality of the body, in particular, is in constant dialogue with colour in the Hebrew Bible. Silvia Schroer and Thomas Staubli's *Body Symbolism in the Bible* demonstrated the influence of ancient Near Eastern cultures, beliefs and languages had on biblical concepts of the body.[70] For example, the eyes are the primary organ of sight. If a person had "good" eyes in the Hebrew Bible, they showed signs of good recognition and understanding. On the other hand, if they were blind or their eyes were dimming, they did not.[71] Applying this to חכללות ("redness") which describes the state of the eyes in Prov 23:29b, for example, we see how colour adds to the overall imagery. The last stanza of Proverbs 23

[67] Isaac Herzog, "Hebrew Porphyrology," in *The Royal Purple and Biblical Blue: Argaman and Tekhelet. The Study of Chief Rabbi Dr Isaac Herzog on the Dye Industries in Ancient Israel and Recent Scientific Contributions*, ed. Ehud Spanier (Jerusalem: Keter, 1987), 17–146.
[68] Scott B. Noegel, "Scarlet and Harlots: Seeing Red in the Hebrew Bible," *HUCA* 87 (2016): 1–47.
[69] See, for example, Jon L. Berquist, *Controlling Corporeality: The Body and the Household in Ancient Israel* (New Brunswick, NJ: Rutgers University Press, 2002); Saul Olyan, *Disability in the Hebrew Bible: Interpreting Mental and Physical Differences* (New York: Cambridge University Press, 2008); Timothy K. Real and David M. Gunn, eds., *Reading Bibles, Writing Bodies: Identity and the Book* (London: Routledge, 1997); S. Tamar Kamionkowski and Wonil Kim, eds., *Bodies, Embodiment, and Theology of the Hebrew Bible* (London: T&T Clark International, 2010).
[70] Silvia Schroer and Thomas Staubli, *Body Symbolism in the Bible* (Collegeville, MN: Liturgical Press, 2001).
[71] *Ibid.*, 103–21.

illustrates how getting drunk from wine changes the appearance of one's eyes to חכללות. Drinking wine changes the intellect of the person *and* conveys the blood-shot look; the sparkle has dimmed as has the levels of intelligence.

The eyes and the visual are especially associated with colour in the Hebrew Bible, but other senses such as olfactory, touch, taste and even hearing are found in contexts of chromatic language.[72] Further descriptions of the body go hand in hand with the understanding of "beauty".[73] Using the example of the eyes again, 1 Samuel illustrates that David was a picture of beauty because of his יפה עינים ("beautiful eyes"; 1 Sam 16:12), and יפה מראה ("beautiful appearance"; 1 Sam 17:42).[74] Directly before each phrase, is the colour term אדמוני ("ruddy"), also describing the outward appearance of David. David Penchansky questions whether David's beauty is *because* of his ruddiness, or in *spite* of it; he leans towards the latter, arguing the "beautiful eyes" depict David as beautiful, but אדמוני means he is "nothing special" because

[72] Yael Avrahami, *The Senses of Scripture: Sensory Perception in the Hebrew Bible*, LHBOTS 545 (London: Bloomsbury T&T Clark, 2014); Talia Sutskover, *Sight and Insight in Genesis: A Semantic Study* (Sheffield: Sheffield Phoenix Press, 2013). This is done by ekphrasis, enargia and synaesthesia. Ekphrasis can be defined as descriptive speech/evocations of text which brings the thing/object/artwork shown vividly (enargia) before the eyes, see F.W. Dobbs-Allsopp and Elaine T. James, "The Ekphrastic Figure(s) in Song 5:10–16," *JBL* 138 (2019): 297–323. Synaethesia presents one sensory experience through images from another sensory field, see Avrahami, *Senses*, 59; Benjamin Kedar-Kopfstein, "Synästhesien im biblischen Althebräisch in Übersetzung und Auslegung," *ZAH* 1 (1988): 47–60, 147–58.

[73] Claus Westermann, "Beauty in the Hebrew Bible," in *A Feminist Companion to Reading the Bible: Approaches, Methods and Strategies*, eds. Athalya Brenner and Carole Fontaine (Sheffield: Sheffield Academic Press, 1997), 584–602; Luke Ferretter, "The Power and the Glory: The Aesthetics of the Hebrew Bible," *Literature & Theology* 18 (2004): 123–38; William A. Dryness, "Aesthetics in the Old Testament: Beauty in Context," *JETS* 28 (1985): 421–32; Patrick Sherry, *Spirit and Beauty: An Introduction to Theological Aesthetics* (London: SCM Press, 2002); Robert L. Hubbard, "The Eyes Have It: Theological Reflections on Human Beauty," *Ex Aud* 13 (1997): 57–72; Stuart Macwilliam, "Ideologies of Male Beauty and the Hebrew Bible," *BibInt* 17 (2009): 265–87; Michael Avioz, "The Motif of Beauty in the Books of Samuel and Kings," *VT* 59 (2009): 341–59; Amy Rebecca Gansell, "The Iconography of Ideal Feminine Beauty Represented in the Hebrew Bible and Iron Age Levantine Sculpture," in *Image, Text, Exegesis: Iconographic Interpretation and the Hebrew Bible*, ed. Izaak J. de Hulster and Joel M. LeMon (London: Bloomsbury, 2014), 46–70.

[74] Cf. Gen 29:17 and the juxtaposition of Leah's רכות ("weak") eyes and Rachel's יפת־תאר ("beautiful form"). There is a disagreement as to whether having "weak"/"tender" eyes is positive or negative: her eyes are "delicate" and therefore beautiful (Aaron Michael Jensen, "The Appearance of Leah," *VT* 68 (2018): 514–8); but ultimately not competitively so with Rachael's "beautiful" appearance. An alternative reading sees Rachel as more beautiful than her sister *because* Leah's eyes are weak/not bright, making her less attractive.

ruddiness is associated with the lower class (cf. Song 1:5–6a).[75] This implies that light skin was regarded as a sign of beauty.[76]

David's "beauty" in 1 Samuel is an example of how colour relates to a character's social status.[77] Beauty and social status have a triadic relationship to elements of power in the Hebrew Bible: the more powerful the person, the more beautiful they are portrayed, which in turn means the higher up the social rank that character is or will be, and vice versa.[78] Johanna Stiebert's study has explained how a daughter's virginity prior to marriage is highly desirable. Virgin daughters enhanced their father's social power and status.[79] They also wore special attire: 2 Samuel 13:18 describes Tamar wearing a כתנת פסים ("multi-coloured tunic").[80] When Tamar is raped, she expresses her grief and humiliation by tearing up her כתנת פסים, symbolising loss

[75] David Penchansky, "Beauty, Power, and Attraction: Aesthetics in the Hebrew Bible," in *Beauty and the Bible: Toward a Hermeneutics of Biblical Aesthetics*, ed. Richard J. Bautch and Jean-Françoise Racine (Atlanta, GA: SBL Press, 2013), 47–66; cf. Loader who looks at the "dark side" of beauty: Homer's ominous use of beauty in the descriptions of Calypso and the captivity of Odysseus (*Od.* 5); Sirens beautiful singing among the flowers is mortally dangerous to passers-by (*Od*. 12.155); James Alfred Loader, "The Dark Side of Beauty in the Old Testament," *OTE* 25 (2012): 334–50; *idem.*, "Making Things from the Heart: On Works of Beauty in the Old Testament," *OTE* 25 (2012): 100–14.

[76] Cf. Song 4:4 and the "tower of David", and Song 7:5 where the woman's neck is equated with an השׁן ("ivory") tower; 1QapGen^{ar} 20 privileges Sarai's white skin, suggesting that a lighter skin tone was idealised. This also relates to the idea connecting gender with colour, which is a significantly underexplored area. On gender and feminist interpretations, see the Feminist Companion Bible series; Athalya Brenner and Carole Fontaine, eds., *A Feminist Companion to Reading the Bible: Approaches, Methods and Strategies*, FCB 10 (Sheffield: Sheffield Academic Press, 1997); Yvonne Sherwood, ed., *The Bible and Feminism: Remapping the Field* (Oxford: Oxford University Press, 2017); Linda Day and Carolyn Pressler, eds. *Engaging the Bible in a Gendered World: An Introduction to Feminist Biblical Interpretation in Honor of Katharine Doob Sakenfeld* (Louisville, KY: Westminster John Knox, 2006).

[77] Normal K. Gottwald, "Social Class as an Analytic and Hermeneutical Category in Biblical Studies," *JBL* 112 (1993): 3–22; *idem*., "Sociology of Ancient Israel," *ABD* 6:79–89; Bruce V. Malchow, *Social Justice in the Hebrew Bible: What is New and What is Old* (Collegeville, MN: Liturgical Press, 1996).

[78] There are different types of power (political/military, divine, social, and sexual); Penchansky, "Beauty;" Ferretter, "The Power;" William K. Gilders, *Blood Ritual in the Hebrew Bible: Meaning and Power* (Baltimore, MD: John Hopkins University Press, 2004); Marti J. Steussy, *David: Biblical Portraits of Power* (Columbia, SC: University of South Carolina Press, 1999); Roy L. Heller, *Power, Politics, and Prophecy: The Character of Samuel and the Deuteronomistic Evaluation of Prophecy*, LHBOTS 440 (London: T&T Clark, 2006); Danna Nolan Fewell and David M. Gunn, *Gender, Power, and Promise: The Subject of the Bible's First Story* (Nashville, TN: Abingdon, 1993); Lillian R. Klein, *From Deborah to Esther: Sexual Politics in the Hebrew Bible* (Minneapolis, MN: Augsburg Fortress, 2003).

[79] Johanna Stiebert, *Fathers and Daughters in the Hebrew Bible* (Oxford: Oxford University Press, 2013), 49.

[80] The translations of פסים are problematic (cf. 4.2.1.3.) as the only two characters to wear כתנת פסים in the Hebrew Bible are Tamar (2 Sam 13) and Joseph (Gen 37). The LXX Genesis 37:3, 23, 31–33 renders the phrase χιτωνα ποικιλον as "multi-coloured tunic" thus giving rise to the idea of Joseph and the "amazing technicolour dream coat" famous from the Andrew Lloyd Webber musical of the same name. However, the LXX^{B} 2 Samuel

of power, beauty and her virgin-daughter status.[81] The כתנת פסים plays an important role in the transferal of power, both for Tamar and for David. Stiebert argued that David, Tamar's father, does not emerge well from this story, as his response (or lack of) constitutes a threat to his own state of power.[82] Similarly, Sara Koenig argues that Tamar remains in these ripped פסים garments as a continual reminder of her loss of status: "changing her robe – the robe that marked her as a virgin daughter of the king – would indicate, perhaps more accurately, her change of position and status."[83] Heath Dewrell also connects Tamar's actions to the change in her sexual status: since she was no longer a virgin, she was no longer qualified to wear the dress of a virgin daughter of the king.[84] There is a lot of interpretation on the social significance of one multi-coloured garment, כתנת פסים bears that weight.

Colour also coincides with the idea of space and place in the Hebrew Bible. Again, there have been many approaches to this motif,[85] but the most prominent example is the relationship colour

13:18–19 uses χιτων καρπωτος ("garment reaching to the wrist") and the LXX^{L} 2 Samuel 13:18–19 says χιτων αστραγαλωτος ("garment reaching to the ankle"), rather than "multi-coloured"; Sara M. Koenig, "Tamar and Tamar: Clothing as Deception and Defiance," in *Dress and Clothing in the Hebrew Bible: "For All Her Household Are Clothed In Crimson"*, ed. Antonios Finitsis (London: T&T Clark, 2019), 87–108 (104). Cf. Frank M. Yamada, *Configurations of Rape in the Hebrew Bible: A Literary Analysis of Three Rape Narratives* (New York: Peter Lang, 2008), 121 fn.35; Manfred Görg, "Der gefärbte Rock Josefs," *BN* 102 (200): 9–12.

[81] Amnon, Tamar's brother and rapist, is not described by the narrative as handsome, in contradistinction to the descriptions of Absalom and Adonijah (David's other children). The lack of description of beauty advances the plot; Avioz, "The Motif," 351.

[82] Stiebert, *Fathers*, 59–64. Bledstein argued both Tamar and Joseph were authorised by their fathers to perform a service (Joseph to oversee his brothers and father's possessions and Tamar to attend an "ailing" member of their family) but during that service, were both abused by their brothers and then cast out; Joseph Adrien Janis Bledstein, "Tamar and the 'Coat of Many Colors'," in *Samuel and Kings: A Feminist Companion to the Bible (Second Series)*, ed. Athalya Brenner (Sheffield: Sheffield Academic Press, 2000), 65–83. Verman notes the irony that Tamar was raped and Joseph was falsely accused of rape by Potiphar's wife (Gen 39:14); Mark Verman, "Royalty, Robes and the Art of Biblical Narrative," *SJOT* 30 (2016): 30–43 (35–6).

[83] Koenig, "Tamar and Tamar," 106.

[84] Heath Dewrell, "How Tamar's Veil Became Joseph's Coat: The Meaning of *kětōnet* (*hap*)*passim*," *Biblica* 87 (2016): 161–74 (163).

[85] Jon L. Berquist and Claudia V. Camp, eds., *Constructions of Space I: Theory, Geography, and Narrative*, LHBOTS 481 (London: T&T Clark, 2007); *idem*., *Constructions of Space II: The Biblical City and Other Imagined Spaces*, LHBOTS 490 (London: T&T Clark 2008); Jorunn Økland, J. Cornelis de Vos and Karen J. Wenell, eds., *Constructions of Space III: Biblical Spatiality and the Sacred*, LHBOTS 540 (London: Bloomsbury T&T Clark, 2016); Mark K. George, ed., *Constructions of Space IV: Further Developments in Examining Ancient Israel's Social Space*, LHBOTS 569 (London: T&T Clark, 2013); David M. Gunn and Paula M. McNutt, eds., *'Imagining' Biblical Worlds: Studies in Spatial, Social and Historical Constructs in Honor of James W. Flanagan*, JSOTSup 359 (London: Sheffield Academic Press, 2002); Alice Mandell and Jeremy

has with the sacred space of the Tent of Meeting and the Tabernacle. This structure is moved from place to place and is erected at various locations, yet YHWH continues to reveal himself there.[86] Michael Hundley has studied the built environment of the Tent of Meeting and recognised the communicative power of structures.[87] He has argued that the physical elements of the building's environment relate to the human social activity occurring within it; its form and purpose determines how a human should behave within the building and this is communicated subconsciously.[88] With this in mind, the vibrant materials and their colour and textures used in the Tent of Meeting, enable those eligible to enter to act in the way they do.

All the themes discussed above are essential components for understanding YHWH and divinity: he creates the sacred space,[89] he is the most powerful, has the highest status, and, notably, when biblical authors/characters try to describe his physical appearance, colour is involved.[90] Another particular example that relates colour to YHWH is in descriptions of YHWH's authority in blessing and cursing. These are two formal categories in the Hebrew Bible that have been explored at length.[91] Chromatic language runs parallel to this collection of

Smoak, "The Material Turn in the Study of Israelite Religions: Spaces, Things, and the Body," *JHebS* 19 (2019): 1–42.

[86] Divine presence was not to thought to permanently reside there but appears whenever Moses entered the tent to inquire of YHWH, Ronald E. Clements, *God and the Temple: The Idea of Divine Presence in Ancient Israel* (Oxford: Basil Blackwell, 1965), 36.

[87] Michael B. Hundley, "Before YHWH at the Entrance of the Tent of Meeting: A Study of Spatial and Conceptual Geography in the Priestly Texts," *ZAW* 123 (2011): 15–26; cf. Clifford Mark McCormick, *Palace and Temple: A Study of Architectural and Verbal Icons*, BZAW 313 (Berlin: de Gruyter, 2002).

[88] Hundley, "Before," 18.

[89] There has been a lot of discussion around *who* creates the sacred space, whether the dwelling of YHWH in the Tabernacle builds sacred space or whether humans play a part in constructing it. It could even be argued that sacred space helps "create" God, insofar as it is the means by which people are able to understand what the divine is.

[90] For example, Ezekiel's theophany uses colour words such as חשמל ("bronze, amber"),ספיר ("lapis lazuli"), תרשיש ("yellow jasper") and ideas of radiance and brightness (cf. 6.4.). When Daniel saw the divine messenger adorned in בד ("white linen"), כתם ("gold") and תרשיש ("yellow jasper"), and when Moses experienced YHWH as the fire of the burning bush (Exod 3:2) colour is experienced indirectly through the fire.

[91] Jeff S. Anderson, "The Social Function of Curses in the Hebrew Bible," *ZAW* 110 (2009): 223–37; Anne Marie Kitz, *Cursed Are You!: The Phenomenology of Cursing in Cuneiform and Hebrew Texts* (Winona Lake, IN: Eisenbrauns, 2013); James K. Aitken, *The Semantics of Blessing and Cursing in Ancient Hebrew*, ANES 23 (Louvain: Peeters, 2007).

semantic language of blessing and cursing. For instance, the threatening curses laid out in Deuteronomy 28:15–68 include descriptions of coloured materials: verses 22–23 describe the striking of ירקון ("green mildew") or the נחשׁת ("bronze") sky and the ברזל ("iron") earth. The book of Psalms also uses this language. When YHWH rewards the good and punishes the wicked, it is centred on the metaphor of a "green" tree or plant wilting, or a plant that is no longer verdant.[92] The lack of "greenness" assists in the description of the wicked or those that are no longer blessed.

1.1.6. Summary

Key and significant works on colour categorisation in both ancient Greek and Biblical Hebrew mainly adapt the works of Berlin and Kay and Heider-Rosch. The non-abstract, material use of colour has been analysed by Thavapalan in the ancient Near Eastern context, Schenkel and Warburton in the Egyptian context, and Clarke, Grand-Clement and Bradley in the Greco-Roman world. These studies note the significance of PURPLE as a material in relation to the surrounding environment. PURPLE in the Hebrew Bible has been touched upon by Brenner and Hartley and more extensively looked at by Herzog, but the materiality of *multiple* colour terms, where the biblical texts portray colours as material phenomena, is yet to be extensively studied.[93]

The preceding illustrates the numerous Greco-Roman studies on the relationship between colour and culture. No biblical scholarship has integrated colour explicitly into the consideration of broader cultural themes in a similar way. There is a clear need, therefore, for a comparative study between colour usage in ancient Greek and Hebrew texts. I propose to use

[92] Pss 37; 52:10; 129:6; cf. Pss 90:5; 103:15.
[93] Brenner, *Colour Terms*, 145–8; Hartley, *Semantics*, 185–206; Herzog, "Hebrew," 17–146.

Homer as a case study as many previous scholars have done, but also including Herodotus' *Histories*, a text no scholar has discussed from a colour perspective. I will also approach colour in the Hebrew Bible from a semantic point of view, which will demonstrate that colour in the biblical text provides us with a useful tool for representing and evaluating a cultural and theological value system.

1.2. What is "Colour"?

Colour impacts the way humans relate to the world; everyone perceives and experiences colour. As such, there are significant definitional challenges around conceptualising "colour". Humans are primarily aware of the world around them through the presence or absence of light. Nineteenth-century thought about colour perception made it seem impossible to think of colour as anything other than a property of light. Biggam argues that there are multiple elements of colour: hue, saturation, tone and brightness, and throughout her book, colour is understood as a visual effect which involves more than one of these colour elements.[94] John Hartley defines both the physical and biological aspects of colour. The physics of colour can be defined as "when a beam of light hits an object, its energy is transformed, being partially absorbed and partially transmitted in a given wavelength. The beam of reflected light is measurable in regard to frequency, wavelength, and energy."[95] The light rays themselves, however, are not coloured. Receptors in the eyes enable humans to see a variety of colours. The lens of the eye focuses an image on the retina, which has a layer of photoreceptor cells made up of rods and cones that detect chromatic achromatic contracts.[96] The biological aspects of colour come from the brain's interpretation of the light rays that enter the eyes.

[94] Biggam, *Semantics*, 1–3, 203.
[95] Hartley, *Semantics*, 4.
[96] *Ibid*., 5.

Although a physical and biological definition of colour can be established, the same cannot be said for a linguistic and psychological study of colour. Section 1.1 of this introduction demonstrated the range of approaches to colour perception, from the nineteenth century through to today. Evan Thompson highlights the comparative and evolutionary studies of colour vision, and the value of neuroethology, computational vision and the ecological approach in perceptual psychology, all of which relates to colour.[97] In addition to these approaches, early thinkers also had other conversations about the beauty and changeability of colour, its relationship to music, numbers and elements, the use of colour in a painter's palette, and the effect of colour in stimulating sensual delight.[98] There is no single authoritative consensus on how to approach historical interpretations and definitions of ancient colour. This issue almost seems like a metaphysical and philosophical problem in itself. In fact, even the distinction between "colours" and "colour" is problematic: "colours" gives us the option of referring to our evidence in terms of own hue-based colour categories, while "colour" seems more abstract and can be conceptualised in many different ways; colour is in the eye and the brain of the beholder. Liza Cleland argues that "colours" are easier to discuss because we have already categorised these practical instantiations (visual or verbal stimuli); they are generally thought of as concrete entities. "Colour" is the abstract background against which colours are salient, and in this respect it is less easy to define or discuss.[99]

No anthropological research can be conducted on ancient societies, nor can we turn to our common knowledge for context and meaning. It is only by studying the rich corpora of ancient literary material can we offer a glimpse into how a particular culture experiences and uses

[97] Evan Thompson, *Colour Vision: A Study in Cognitive Science and the Philosophy of Perception* (London: Routledge, 1995).
[98] See Gage, *Colour*, 14–5; Thavapalan, *Meaning*, 1–6.
[99] Liza Cleland, "Colour in Antiquity," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 140–5.

colour. Literary description is often almost entirely devalued as a source of information about "colour". Nevertheless, as well as perhaps telling us what colour something is, at the same time, the literary description employs the hue to suggest a symbolic meaning. It might enhance the descriptive qualities, but also contribute to the voice of the author and allude to social meanings. Interestingly, ancient Greek and Latin both have a word for "colour": χρωμα and *color*. χρωμα and *color* in Greek and Roman literature was a point of reference for the formulation and understanding "colour" and "colours" across antiquity. χρωμα and *color* were connected to the principle of "appearance" and complexion, ornament and embellishment, and to denote rhetorical fabrication.[100] χρωμα was also rooted in early Greek musical theory, Plato (*Republic*, 601b) describes μουσικης χρωματα ("musical colouring") which is a phrase found across ancient Greek texts that constituted a simple modification or embellishment, and also a technical repertoire of musical scale.[101] Musical χρωματα could also imitate particular characteristics in the soul, and thus a metaphor for moral and ethical evaluation.[102] χρωμα in Greek art was also complex, finding the "right" paint or pigment to portray ροδοδακτυλος ("rosy-fingered") for example, but employed to refer to impressions of character and like musical χρωματα, public performance. *Color* too played a significant role in the repertoire of public performance, referring to the "face" that a character assumed, a rhetorical slant or an instrument of persuasion. *Color* was an active quality "marking some individual characterising trait that communicated information about an individual. The orator who was not orating did not have *color*…"[103] And yet at the same time, to conceptualise someone's *color* was to conceptualise what created it (embarrassment creates the "red" face, fear creates a "pale" face etc.).[104] Overall, both χρωμα and *color* could be conceptualised in a diverse range of ways:

[100] Bradley, *Colour*, 69.
[101] *Ibid*, 70, and especially fns. 59 and 60.
[102] Plut. *Quaes. Conv.* 744c; *Hibeh Papyri* (1906-55) 1.13.22.
[103] Bradley, *Colour*, 127.
[104] *Ibid.*

object, surface, pigment, dye, a basic unit of vision, and so on. Bradley concludes that colour is shaped by culture, memories, and experience of the individual, as well as the context and target audience of the communication.[105]

Scholarship on the perception of colour in the Greco-Roman world is more established than that of Biblical Studies or the ancient Near East. This is a logical reason to turn to Classics as a comparative option for this study, rather than to the ancient Near East. As will become apparent in the section below, there are many comparative studies between the Hebrew Bible and the ancient Near East, and so it would be reasonable to question why this study does not set out to scrutinise ancient Near Eastern literature. However in terms of colour, both the Hebrew and Akkadian language lack a word or structural mark for "colour"; it is not demonstrable that these speakers thought in terms of "colour".[106] The typology of Akkadian colour terminology (as established by Thavapalan[107]) is on the face of it similar to that of Hebrew. Both comprise terms that fall into groups that are dominated with pure brightness, such as *ellu* ("shining") and צח ("dazzling"), or dominated by hue, like *barmu* ("multi-hued") and רקמה ("coloured"). Other categories include terms dominated by saturation, for example *arqu* ("pale yellow/green") and ירק ("pale green"), and those materials that are brightness dominated, like gemstones. The cultural use and understanding of these colours however, in their respective inscriptions and texts as well as in archaeological evidence, are where they differ. This in turn, deserves a separate study.

---

[105] *Ibid.*, 221.

[106] Thavapalan (*Meaning*, 22–3) argues that some uses of the Akkadian *zīmu* and *šiknu* ("appearance, look") has "colour" as the subject (e.g. "the appearance of gold") in either an adjectival or verbal form; cf. the Egyptian *iwn* ("colour, skin"): *iwn=f m nb*(*.w*) ("its colour consists of gold"), Schenkel, "Colour Terms," 215–6. Thavapalan (*Meaning*, 42–65) also distinguishes four terms for the process of colouring and the state of being coloured (*bašālu*, *šamātu*, *ṣarāpu*, *tarāpu*) as the closest set of words corresponding to the English "colour". Thavapalan maintains that *zīmu* and *šiknu* refer to various aspects of an objects appearance, colour being one among them, whilst the technologies available to colour something do not necessarily lead to a concept or a term that solely designates "colour".

[107] Thavapalan, *Meaning*, 40.

For this project, the Greco-Roman use of χρωμα and *color* chimes with this thesis, specifically concerning the cultural associations and material properties of "colour". So far, as mentioned in the previous section, colour studies in the Hebrew Bible are limited in scope and depth. Brenner tries to define biblical colour by adapting universal criteria on what makes a Basic Colour Term in Biblical Hebrew.[108] This is later built on by Bulakh.[109] Hartley analyses a select number of ancient Hebrew colour lexemes and provides an overview of that colour term with reference to its surrounding cognates, its appearances in other ancient texts, and its biblical contexts, to try and understand colour in the Hebrew Bible.[110] This thesis goes beyond Brenner and Bulakh in that the framework of human universals and cross-cultural colour categorisation cannot be applied to ancient languages. That is, the works of Berlin and Kay or that of Heider-Rosch and MacLaury cannot be adapted nor directly mapped onto ancient literary material. This thesis also goes beyond Hartley, whereby rather than categorising lexemes in terms of chromaticity and conducting a basic exegesis, this study groups colour words more generally with flexible boundaries and a particular focus on their cultural use. It is clear that the questions we ask about ancient colour perception has changed, from attempting to understand a colour term within the confines of a particular language leading to a theory of a common development of terminology across all languages, to attempting to understand a colour term in its literary context as a window on to the culture in which it was used.

Further, as there is no specific word for "colour" in biblical Hebrew, one absolutely cannot transfer modern day perception of colour onto that of Hebrew. It is not possible to determine Basic Colour Terms nor provide an exhaustive list of colour terms for understanding colour in

[108] Brenner, *Colour Terms*, 40–2.
[109] Bulakh, "Basic Color Terms," 181–216.
[110] Hartley, *Semantics*.

the Hebrew Bible. Equally, it is not possible to understand אדם as simply "red", for example, as it will always cause elements of cultural meaning to be lost.[111] There is no straightforward and universal definition of "colour". Any attempt to delineate where colour starts and ends is not possible from a linguistic and literary perspective; one needs to be open-minded in how colour is expressed across the ancient world. A definition of colour that relies on physics alone is narrow, and the biology of colour perception makes it clear that colour is in fact in the mind, rather than fundamentally out there in the world. Once you throw language, culture and psychology into that, the world of colour is rich, diverse and complex. Like in the Greco-Roman understanding of χρωμα and *color*, there are significant underlying associations attached to "colour" and thus "colours". It is therefore the aim of this thesis to assess and investigate the rich and diverse colour vocabulary used across the biblical texts, where the materiality of colours and their broader cultural associations are embedded in the meaning of those texts.[112]

To that aim, it should also be noted that it is not always clear when a material is understood as a colour and when it is not. Naturally, most objects and many materials have inherent colours and their colours contribute to our mental imagery and understanding of the object or material. It may be part of their appearance, but not necessarily their primary function. For example, זהב ("gold") and כסף ("silver") have monetary value or serve as metal rather than something "gold"- or "silver"-coloured. Equally, not every gleam or shine is necessarily an aspect of an object's

[111] "Red" is a guideline for example, because historical criticism (i.e., the author, translator, and social, cultural and political context of the historical period) needs to be considered to try and understand what the author truly wanted to convey when using "red" – something that cannot be proven, cf. Biggam, *Semantics*, 137–45. Dictionaries are also a tool for demonstrating that there is no single correct translation.

[112] It is important to note that the concept of "culture" is difficult to define too. Chris Jenks says, "the idea of culture embraces a range of topics, process, differences and even paradoxes […] The concept is at least complex and at most so divergent in its various applications as to defy the possibility, or indeed the necessity, of any singular designation." Chris Jenks, *Culture*, 2nd ed. (London: Routledge, 2005), 1. He argues "culture" becomes intelligible as a general state of mind, it involves a state of moral development in society, and can be viewed as the collective body of arts and intellectual work within any one society, which more broadly leads to culture is regarded as the whole way of life of a people (*ibid.*, 11–2). Inevitably, culture will change and evolve over time, and this is something that becomes apparent throughout this thesis.

colour. Therefore drawing a line between when a material is understood as a colour and when it is not can be blurry. This thesis, however, combats this fuzziness by exploring the occurrences of materials, or surfaces of materials, that add to the overall visual description of the passage.

1.3. Research Questions and Methodology

1.3.1. Questions

This study will explore the relationship between colour perception in Homeric Greek, Classical Greek and the Hebrew Bible. More specifically, it examines the colour terms used in Homer's *Iliad* and *Odyssey* and Herodotus' *Histories*, and deliberates how this can enhance our understanding of colour in the Hebrew Bible.[113] Are there similarities between the Greek and Hebrew evidence, for example, in terms of colour categorisation, semiotics, and/or cognitive linguistic development? How can the findings from the study of Greek literature be applied to the Hebrew Bible? What linguistic categories are employed in Homer and Herodotus that have colour equivalents in the Hebrew Bible? One commonality, already anticipated, surrounds the significance of PURPLE within the texts. Concentrating on this single colour category, did the Greeks and the authors of the Hebrew Bible share a common understanding of how this colour was perceived, applied and evaluated?

Studying specific colours closely raises further questions as to how a colour term relates to a physical object. Analysis of the embodiment of colour opens up a set of considerations that differ from the conceptualisation of colour as an abstract, including questions relating to the value of these materials, their associations, and their use. As the Hebrew Bible has no word for

[113] A conclusion from this thesis will show the direction of this comparative study could be reciprocated, i.e., what we now know about the Hebrew Bible's portrayal of colour can inform and develop Greek colour perception further; it is interesting that comparative chromatic studies are not mono-directional.

"colour" as an abstract term, some colour terms can appear more adjectival than others, but are still closely linked to nouns which are coloured materials (אדם "red" with דם "blood" and אדמה "earth").[114] By just concentrating on the materiality of colour, it becomes logical to ask where these materials come from and whether the etymology of a term can be historically traced from a linguistic and material point of view. If the majority of these materials were foreign or exotic, ultimately, what does this mean for understanding the role they play in the biblical texts?

Finally, close textual analysis of passages in the Hebrew Bible that contain a significant number of colour words (namely Ezekiel 27, Exodus 28, Lamentations 4, and Ezekiel 1) asks about the main, salient ideas that emerge from the way colour is used in these texts. Biblical passages that contain a sizeable amount of chromatic material are sparse, so when multiple colours are employed in the same context, it has a striking effect. What ideas and themes, therefore, do these four texts share in common, and how do they differ?

As with the previous scholarship on Greco-Roman colour and its relation to ancient Greece and Rome, this thesis explores how colour relates to broader, cultural themes in the Hebrew Bible. Specific subjects of investigation include the body, beauty, space and place, different types of power, social status and divinity. Studying the Hebrew Bible's use of colour in relation to these notions provides a novel approach to colour perception in the Hebrew Bible.

1.3.2. Methodology

[114] Detlef Dieckmann-von Bünau, "Paints (AT)," *WiBiLex* https://www.bibelwissenschaft.de/wibilex/das-bibellexikon/lexikon/sachwort/anzeigen/details/farben-at/ch/b43afcce7c87584a7111d922a4f3ac61/

1.3.2.1. Comparative Method

The comparative method was devised in other areas of historical and phenomenological research.[115] Comparing other texts, disciplines and cultures to the Bible is common and methodologically pluralistic. Many previous studies from a linguistic,[116] literary,[117] historical,[118] cultural,[119] or social approach have linked Hebrew and Greek thought.[120] Homeric epic is regularly compared to the Bible,[121] and studies have also likened historiography in the Hebrew Bible and the histories of Herodotus.[122] This study uses the comparative method to

[115] On the history of the comparative method, see Anselm C. Hagedorn, *Between Moses and Plato: Individual and Society in Deuteronomy and Ancient Greek Law* (Göttingen: Vandenhoeck & Ruprecht, 2004), 39–45; Christopher B. Hays, *Hidden Riches: A Sourcebook for the Comparative Study of the Hebrew Bible and Ancient Near East* (Louisville, KY: Westminster John Knox, 2014), 15–40; Brent A. Strawn, "Comparative Approaches: History, Theory, and the Image of God," in *Method Matters: Essays on the Interpretation of the Hebrew Bible in Honor of David L. Petersen*, eds. Joel M. LeMon and Kent Harold Richards (Atlanta, GA: SBL Press, 2009), 117–42; J.J.M. Roberts, *The Bible and the Ancient Near East: Collected Essays* (Winona Lake, IN: Eisenbrauns, 2002), 3–44; cf. M.W. Chavalas, "The Comparative Use of Ancient Near Eastern Texts in the Study of the Hebrew Bible," *Religion Compass* 5 (2011): 150–65.

[116] Thorleif Boman, *Das hebräische Denken im Vergleich mit dem Griechischen*, 5th ed. (Göttingen: Vandenhoeck & Ruprecht, 1968); James Barr, *The Semantics of Biblical Language* (London: Oxford University Press, 1978).

[117] Erich Auerbach, *Mimesis: The Representation of Reality in Western Literature* (Princeton, NJ: Princeton University Press, 2013), 3–23; Cyrus H. Gordon, "Homer and the Bible: The Origin and Character of East Mediterranean Literature," *HUCA* 26 (1955): 43–108; John Pairman Brown, *Israel and Hellas: Volume I*, BZAW 231 (Berlin: De Gruyter, 1995), 1–90.

[118] John Van Seters, *In Search of History: Historiography in the Ancient World and the Origins of Biblical History* (Winona Lake, IN: Eisenbrauns, 1997); Katherine M. Stott, *Why Did They Write This Way? Reflections on References to Written Documents in the Hebrew Bible and Ancient Literature*, LHBOTS 492 (London: T&T Clark International, 2008).

[119] Cyrus H. Gordon, *Before the Bible: The Common Background of Greek and Hebrew Civilisations* (London: Collins, 1962); Hagedorn, *Between*, 14–36.

[120] Social practices such as prophecy or sacrifice, Martti Nissinen, *Ancient Prophecy: Near Eastern, Biblical, and Greek Perspectives* (Oxford: Oxford University Press, 2017); F.S. Naiden, "Rejected Sacrifice in Greek and Hebrew Religion," *JANER* 6 (2006): 189–223; J.W. Knust and Z. Várhelyi eds., *Ancient Mediterranean Sacrifice* (New York: Oxford University Press, 2011).

[121] For example, Auerbach (*Mimesis*, 3–23) compared the scar of Odysseus (*Iliad* 19) with the sacrifice of Isaac (Gen. 22:1–19); Gordon ("Homer," 64) illustrated triple parallels between material in Ugaritic, Greek and Hebrew, arguing the facilitation of the Ugaritic material can help under Homeric epic; Hagedorn (*Between*, 148–52) also touched on the nature of kingship between Homer's Agamemnon and Deut 17:14–20.

[122] Ernest Nicholson, *The Pentateuch in the Twentieth Century: The Legacy of Julius Wellhausen* (New York: Oxford University Press, 1998),149–53; Van Seters, *In Search*, 31–54; *idem*., "Is there any Historiography in the Hebrew Bible? A Hebrew-Greek Comparison," *JNSL* 28 (2002): 1–25; Flemming A.J. Nielsen, *The Tragedy in History: Herodotus and the Deuteronomistic History*, JSOTSup 251 (Sheffield: Sheffield Academic Press, 1997); Katherine M. Stott, "Herodotus and the Old Testament: A Comparative Reading of the Ascendancy Stories of King Cyrus and David," *SJOT* 16 (2002): 52–78; Jan-Wim Wesselius, *The Origin of the History of Israel: Herodotus' Histories as Blueprint for the First Books of the Bible*, JSOTSup 345 (London: Sheffield Academic Press, 2002); Sara Mandell and David Noel Freedman, *The Relationship Between Herodotus' History and Primary History* (Atlanta, GA: Scholars Press, 1993); Paul Niskanen, *The Human and the Divine in History: Herodotus and the Book of Daniel* (London: T&T Clark International, 2004).

compare the categorisation and perception of colour in ancient Greek texts like Homer and Herodotus, with the Hebrew Bible texts, to argue that ancient-world constructs of colour not only reflect culturally-specific values, but also index the particular material and theological worldviews of ancient societies. It should be noted that this thesis does not compare colour in the Septuagint, which may seem like the logical option for Greek material. The Septuagint is a different Greek, a translation of the Old Testament, and the largest Greek composition written during the Hellenistic period with many implications for Hellenistic Judaism. As such, it is for these reasons that I cannot include it in this thesis, for understanding the role of colour in the Septuagint is very much a project in itself.

The comparison in question between Homer and Herodotus, and the Hebrew Bible is not a 50/50 split as such, but uses previous material on colour in Homer and Herodotus as a starting point and a foundation to launch a discussion of colour perception in the Hebrew Bible. In doing so, this thesis begins with an exploration into the use of colour in ancient Greek material, but the main body focuses on colour in the Hebrew Bible. As such, it challenges the dominant scholarly tendency to examine colour in the Hebrew Bible from a universal point of view, and rather favours the relative perspective incorporating social and cultural themes.

The gradual maturing of the comparative method as a tool was developed by scholars such as Shemaryahu Talmon and William Hallo. Talmon said that comparisons "can be drawn, therefore, between any two (or more) cultures and social organisms which exhibit some similar features, though they be far-removed from one another in time and space." He argued that the most effective comparisons are between texts with certain similarities: chronological proximity,

geographical proximity, and cultural affinity.[123] Hallo advocates a "contextual approach", which takes into account *both* contrasts and similarities of texts (i.e., differences and similarities or "negative and "positive" comparisons) and the environment of any given text.[124] Furthermore, Meir Malul builds on Talmon and Hallo, drawing a distinction between the "historical comparison" approach and the "typological comparison" approach, highlighting the limits of both methods, as the blurring of the border between these two fundamental approaches often leads to assumptions and incorrect conclusions.[125] Malul argues for the need to examine the immediate and wider context before resorting to external evidence, as well as being considerate of coincidence *versus* uniqueness. He asks the questions as to whether the differences/similarities in the comparison the result of parallel developments, independent of each other and, therefore, coincidental, or do they point to an original phenomenon unique to the sources under comparison?[126] Brent Strawn identified criteria for an effective comparative method. The best comparisons are intercultural, "which means they include historically unrelated and/or noncontiguous cultural and/or linguistic traditions".[127] They also benefit from the triangulation of a third element, which "enlarges the scale of the comparison and permits more varied assessments of similarities, differences, (re)semblance, and so forth".[128] Strawn suggested several things to keep in mind during comparison, including the broader contexts of the comparable items.[129]

---

[123] Shemaryahu Talmon, "The 'Comparative Method' in Biblical Interpretation – Principles and Problems," in *Essential Papers on Israel and the Ancient Near East*, ed. Frederick E. Greenspahn (New York: New York University Press, 1991), 381–420 (384, 386).
[124] William W. Hallo, "New Moons and Sabbaths: A Case-Study in the Contrastive Approach," in Greenspahn, *Essential Papers*, 420–42; *idem*., "Compare and Contrast: The Contextual Approach to Biblical Literature," in *The Bible in the Light of Cuneiform Literature: Scripture in Context III*, eds. William W. Hallo, Bruce William Jones, and Gerald L. Mattingly (New York: Mellen, 1990), 1–30; cf. 90.
[125] Meir Malul, *The Comparative Method in Ancient Near Eastern and Biblical Legal Studies*, AOAT 227 (Kevelaer: Verlag Butzon & Bercker, 1990).
[126] *Ibid.*, 93–7.
[127] Strawn, "Comparative Approaches," 129.
[128] *Ibid.*, 129.
[129] *Ibid.*, 131; cf. the questions asked by Sasson: what are the differences in contexts? Are the texts in question of the same literary genre? Is etymological kinship always useful in helping to make comparisons? J.M. Sasson, "Two Recent Works on Mari," *AfO* 27 (1980): 127–35 (129).

This interdisciplinary and comparative project adopts these ideas to provide a rich and sophisticated framework for this study. I aim to avoid the generalisations of uniting the texts within the Hebrew Bible, and that of the *Iliad*, *Odyssey* and the *Histories*, by conscientiously being aware of differences in genre, varying time periods and geographical realms. More specifically, the comparison is not made by pondering whether differences weigh more than similarities for the purpose of finding out the existence and direction of influence of one text on another. Rather, the corpora are placed next to each other in order to pay attention to family resemblances including similarities and differences, and to look for questions concerning one source material that would not emerge without the knowledge of the other.[130] Strawn stressed the importance of interculturality, and an underlying argument of this thesis concerns the significance of a particular culture in understanding colour perception. Moreover, as mentioned above, previous studies have only compared Herodotus and the Hebrew Bible, or Homer and the Hebrew Bible. This thesis outlines colour categorisation in both Homer and Herodotus, and uses this as a launchpad into discussion about colour perception in the Hebrew Bible, allowing for a deeper and more varied assessment of ancient colour understanding. It will demonstrate that, though this is intentionally a bibliocentric study, colour in the Greek texts can provide nuances into colour in the Hebrew Bible, and vice versa. To show these conclusions, the comparison is based on sufficient data from the corpora, though understanding colour is subjective in some cases, these might be approximations.

[130] This is established by Nissinen, *Ancient Prophecy*, esp. 326–34.

Furthermore, to avoid charges of "parallelomania" (extravagantly seeing similarities when there are none)[131] or "parallel-onoia"[132]/"parallelophobia"[133] (overstating differences), it is important to note that Homeric epic, the *Histories* and the texts of the Hebrew Bible, are similar *as well as* different in their colour perception. This study mainly attends to the similarities, showing that previous scholarship on colour in the Greek texts is a launchpad for categorising colour in the Hebrew Bible, but also teases out a few differences. By undertaking a comparative journey, it enhances our understanding of patterns of colour and culture in the ancient world, what those patterns shared and how they could diverge.

1.3.2.2. Panchronic and Typological Methods

Having outlined the comparative approach of this study, I will answer the above research questions by acknowledging, but not siding with, synchronic and diachronic approaches as well as literary and historical approaches to the Hebrew Bible. The literary approach tries to understand the text by examining its internal relations and structures; by studying language, style, genre and content, it ultimately aids interpretation and understanding.[134] The historical method often poses questions about date of composition, authorship, cultural influences and other evidence that can corroborate a particular body of text.[135] This study adopts the

[131] A phrase first introduced to biblical scholarship by Samuel Sandmel, "Parallelomania," *JBL* 81 (1962): 1–13.
[132] Howard Eilberg-Schwartz, *The Savage in Judaism: An Anthropology of Israelite Religion and Ancient Judaism* (Bloomington, IN: Indiana University Press, 1990), 87–102, cf. Strawn, "Comparative Approaches," 120.
[133] M.W. Chavalas, "Assyriology and Biblical Studies: A Century of Tension," in *Mesopotamia and the Bible*, eds. M.W. Chavalas and K.L. Younger Jr. (Grand Rapids, MI: Baker, 2002), 21–67 (43).
[134] Robert Alter and Frank Kermode, eds., *The Literary Guide to the Bible* (London: Collins, 1987); Robert Alter, *The Art of Biblical Narrative* (London: Basic Books, 1981); John B. Gabel and Charles B. Wheeler, *The Bible as Literature: An Introduction* (Oxford: Oxford University Press, 1986); David Jasper, "Literary Readings of the Bible," in *The Cambridge Companion to Biblical Interpretation*, ed. John Barton (Cambridge: Cambridge University Press, 1998), 21–34; David Perkins, *Is Literary History Possible?* (London: John Hopkins University Press, 1992).
[135] John Barton, "Historical-Critical Approaches," in John Barton, *The Cambridge Companion to Biblical Interpretation*, 9–20; *idem*., *The Nature of Biblical Criticism* (London: Westminster John Knox, 2007); F.W. Dobbs-Allsopp, "Rethinking Historical Criticism," *BibInt* 7 (1999): 235–71; J.R. de Jager Jackson, *Historical Criticism and the Meaning of Texts* (London: Routledge, 1989); Francis Watson, *Text, Church and the World: Biblical Interpretation in Theological Perspective* (Edinburgh: T&T Clark, 1994).

"panchronic" approach from the field of linguistics which describes the sensitivity towards diachrony and synchrony. When I discuss specific biblical texts, I will use diachronic/synchronic and historical/literary terminology as appropriate. When I synthesise the observations made in both of these modes, I employ a panchronic approach. This was first formulated by Bernd Heine, Ulrike Claudi and Freiderike Hünnemeyer in *Grammaticalization: A Conceptual Framework*.[136] Panchrony is not restricted to specific points in time, to patterns of change recurring across languages or to features of specific languages constant over long periods; panchrony recognises the variety of genre, subject matter, origin, chronology, and space. It avoids flattening the historical diversity and richness of the biblical text by following Malul's criteria in taking into account the immediate and wider context of the text, as well as Nissinen's understanding that textual genre serves as the gateway to understanding historical phenomena.[137] This is all significant to a colour study, particularly because of the paucity of material available.[138] On a broader level, "panchronicity" as a method might be helpful beyond this study. Hebrew Bible scholars try and balance synchronic and diachronic approaches, but there is a tendency to bifurcate work into one camp or the other, rather than trying to synthesise insights from both.

Parallel to panchrony are the typological comparisons made between Homer, Herodotus and the Hebrew Bible. John Myhill defined a typological study as:

[136] Bernd Heine, Ulrike Claudi and Freiderike Hünnemeyer, *Grammaticalization: A Conceptual Framework* (Chicago, IL: University of Chicago Press, 1994), 248–59 (261); cf. Alexander Andrason, "The Panchronic *yiqtol*: Functionally Consistent and Cognitively Plausible," *JHebS* 10 (2010): 1–63; William M. Christie Jr., "Synchronic, Diachronic, and Panchronic Linguistics," in *Papers from the Third International Conference of Historical Linguistics*, eds. J. Peter Maher, Allan R. Bomhard and E.F. Konrad Koerner (Amsterdam: John Benjamins, 1982), 1–8; P.H. Matthews, *The Concise Oxford Dictionary of Linguistics*, 2nd ed. (Oxford: Oxford University Press, 2007), 283.
[137] Nissinen, *Ancient Prophecy*, 327.
[138] Brenner, "On Color," 201.

> [having] data from a wide variety of genetically unrelated languages, analyzed within common descriptive paradigm which makes it possible to directly, systematically, and (relatively) simply compare data from these various languages and propose hypotheses regarding human language in general.[139]

As Malul argued, this approach demonstrates that cultural formations consist of ideas or customs. Searching for typologies does not ignore differences between texts, but assumes that they are a collective representation of their cultures.[140] Avrahami has also adopted this approach, highlighting that there is no shortage of general cultural and conceptual formations, but that one should be sensitive to the likelihood that there will be exceptional findings. She states it is eminently possible to reach important conclusions about social stratification in the Hebrew Bible, even though the text covers different times, different views, and different customs.[141] This study advocates a cultural contextual approach to the data as much as a "pure linguistic" one.

1.3.2.3. Collecting Data

Colour in Herodotus' *Histories* is a rare phenomenon and no previous chromatic studies have been conducted on the text. The Perseus Digital Library was used as a search engine for Greek colour terms within the text, a collection of colour terms found in the *Histories* can be collated and offer a glimpse into colour understanding.[142] For Homer and the Hebrew Bible, I build

---

[139] John Myhill, "Typology and Discourse Analysis," in *The Handbook of Discourse Analysis*, eds. Deborah Schiffrin, Deborah Tannen, and Heidi E. Hamilton (Oxford: Blackwell Publishers, 2001), 161–74 (161).
[140] Meir Malul, *Knowledge, Control and Sex: Studies in Biblical Thought, Culture and Worldview* (Tel Aviv: Archaeological Center Publication, 2002), 73. Initially a limitation arises from this, there is no consensus as to what extent Homeric epic, the *Histories* and the Hebrew Bible constitutes as adequate sources for reconstructing the "everyday life" of ancient Greece and biblical Israel, see Philip J. King and Lawrence E. Stager, *Life in Biblical Israel* (Louisville, KY: Westminster John Knox, 2001).
[141] Avrahami, *Senses*, 54.
[142] https://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.01.0125. I am aware of multiple assumptions being made when carrying out this process, namely I have collected *all* of the colour terms in Herodotus by searching for general Greek colour terms found in other texts, or from the English interpretations of modern terms translated back to Greek. However, even if certain colour phenomena were missed, I feel there is a basic set of evidence here that conveys this argument effectively.

upon the data collected by previous scholars, namely Gladstone for Homer and Brenner and Hartley for the Hebrew Bible.[143] These works were further developed using the Accordance and Logos software.

It is important to note that there are significant problems and limitations of collecting data from electronic databases. This is a field generally undertheorised and discussed in the Hebrew Bible, but yet have implications on the output and results. Biblical studies is dominated by proprietary products, developed commercially and sold under license. Russell Hobson discusses the difference between open and closed platforms.[144] Open access models allow developers to contribute to their performance and scope of their features, whereas the now extinct BibleWorks and the current Accordance and Logos software are examples of the closed platforms. The data is locked behind a user interface, with no methods open to outside developers for accessing and manipulating the data programmatically. Hobson argues that there is a fatal design flaw to this whereby data becomes stagnant pools that are superseded or fall out of use.[145] Proprietary products cycle through endless versions that produce "bloated applications" and suffer from problems of integration and maintenance.[146] Hobson argues that only by securing free and open access to large stores of data can the field of Biblical studies as a whole begin to develop the kind of applications that will properly serve the next generation of scholars.[147] Compared to Classics and the ancient Near Eastern online material,[148] there is a significant lack of an

[143] Gladstone, *Studies*, 459; cf. Nancy Parott Hickerson, "Gladstone's Ethnolinguistics: The Language of Experience in the Nineteenth Century," *Journal of Anthropological Research* 39 (1983): 26–41 (32–6); Brenner, *Colour Terms*; Hartley*, Semantics*.
[144] Russell Hobson, "Does Biblical Studies Deserve to be an Open Source Discipline?," in *Digital Humanities in Biblical, Early Jewish and Early Christian Studies*, eds. Claire Clivaz, Andrew Gregory and David Hamidović, Scholarly Communication 2 (Leiden: Brill, 2014), 261–71.
[145] Hobson, "Does Biblical Studies," 267.
[146] *Ibid*., 263.
[147] *Ibid.*, 266.
[148] For Classics, as well as Perseus, there is the Loeb Classical Library, the Classics Library, the Internet Classics Archive, Lacus Curtius, and Thesauras Lingae Graecae, as well as projects on specific texts such as The Ovid Project. For more examples, see Marie Revellio, "Classics and the Digital Age: Advantages and Limitations of Digital Text Analysis in Classical Philology," LitLangLab Pamphlet 2 (2015): 1–16. For the ancient Near East,

environment in which data collected by a number of projects that can be freely shared across the internet. Consequently, this means that biblical data online is only as good as the input put into it.

As for the limitations of the Perseus Digital Library, as an open-source piece of software, there are few. For example, there are some volumes that have only been partially catalogued online due to time restrictions (e.g. *Fragmenta Historicorum Graecorum*, Vol. 4), and many authors do not have an established "authority record".[149]

However, these limitations do not undermine this whole project. Electronic databases are resources of major advancement in the humanities, capable of yielding new avenues of research if the limitations are acknowledged. Using Perseus, Accordance and Logos allowed me to identify *extra* words that previous scholars had missed. I was able to read, search and collate statistics from ancient sources, using secondary literature as a foundation. Equally, it is also important to note at the outset that these lists of colour terms are not exhaustive; identifying where a colour term ends and a different visual category (not necessarily chromatic) starts is not straightforward.[150]

there is the Electronic Tools and Ancient Near Eastern Archives, the ORACC portal website, the Electronic Pennsylvania Sumerian Dictionary and the Chicago Assyrian Dictionary, as well as the ongoing digitized development of the Comprehensive Aramaic Lexicon at the Hebrew union College.

[149] Perseus defines "authority record" as "a record created to represent an author, subject, or work (among other items), and to establish a preferred/authorized heading for use in bibliographic records and catalogs. Authority records also typically include variant names, sources used to identity the preferred heading, and unique identifiers." http://sites.tufts.edu/perseuscatalog/?page_id=115/#defs_authrecord See "Data Limitations", accessed Tuesday 12th January 2021, http://sites.tufts.edu/perseuscatalog/?page_id=138

[150] Biggam, *Semantics*, 1–8.

1.4. Thesis Outline

The main body of this study comprises five chapters, which are structured telescopically: I begin with a synthetic analysis of a large collection of evidence and work towards close analysis of four particular texts. This approach demonstrates what we can learn about colour on a macroscopic and a microscopic level. Chapter 2 introduces the texts and lays out evidence from Homer's *Iliad* and *Odyssey*, Herodotus' *Histories* and the Hebrew Bible (*BHS*), providing tables of colour words, possible translations and the number of times each word occurs within the text. These tables provide key evidence from this data emphasising certain patterns and commonalities. For example, all three corpora describe colour in relation to physical materials such as purple clothes. They also all discuss colour *in relation to* (rather than *depending on*) brightness and luminosity. Combining these two notions, material phenomena include elements of brightness, hue and saturation, and dominate Hebrew colour vocabulary compared to the very few, arguably "abstract" terms.[151] The rich data and these observable commonalities and differences provide the framework for the rest of this thesis.

Chapter 3 takes up the most popular colour category: PURPLE.[152] This section is an illustration of what happens if we take one set of colour terms from Chapter 2 and explore how they operate on a comparative basis; this leads directly into the thematic structure of the rest of the thesis,

[151] In a previous article, I argue for the need to re-translate GREEN in the Hebrew Bible. This colour category is arguably the closest to our understanding of a colour today. In other words, "green" colour terms in the Hebrew Bible are used adjectivally to describe typically green things like trees, plants and vegetation. Also "green" colour terms have the associations of freshness, luxury and verdancy, much like our understanding of green nowadays. However, though this is the case, there are still ambiguous uses of "green" in the biblical texts, where "green" describes objects not typically suited to greenness. By understanding, the further biblical associations behind "green" – something that is not apparent today – where "green" is central to the theological semantics of blessing and cursing, these contexts actually fit into GREEN. See Ellena Lyell, "(Un)Translating Colours in the Hebrew Bible: A Reassessment of 'Green'," *JSOT* forthcoming. The only other exception that may also be considered an abstract colour term is the root אדם and its derivatives; Noegel, "Scarlet," 1–47.

[152] "Popular" in terms of 1) having a high frequency of occurrences within a wide range of ancient texts, Brenner, *Colour Terms*, 41; and 2) having been discussed at great length by previous scholarship (including, but not restricted to, classical and biblical scholars).

by drawing attention to the materiality of a particular part of PURPLE, namely "sea-purple". The chapter looks at where "sea-purple" comes from and at its semiotics and cultural connotations. "Sea-purple" is a dye extracted from seashells, a material phenomenon, and is immersed in long-standing political, economic and social traditions and associations. This chapter also highlights the significance of genre, drawing attention to the way that the poetical nature of Homer and biblical poetry engage much more creatively and flexibly with "sea-purple" than Herodotus or the Hebrew prose and laws. Chapter 3 strengthens the findings in Chapter 2, arguing that the use of "sea-purple" in classical Greek and the Hebrew Bible centres on descriptions of the sea, clothing and the shimmer from the dye gained from the *murex* shell. Additionally, "sea-purple" is imported and traded across the ancient world, and relates to connotations of wealth, types of power, and social status.

Chapter 4, "Materiality", engages in a detailed study of how other colour terms in the Hebrew Bible are tied with material or physical phenomena, rather than abstract colour concepts. The materials in question are predominantly associated with the human body, and the body is accordingly the logical point of focus for the chapter. The chapter begins with the materiality of the natural body, looking at coloured skin, hair, eyes and teeth, before moving to unnatural, man-made items placed upon the body, such as clothing, cosmetics, jewellery and gemstones. Then, Chapter 4 ends with the materials of food and drink that the body ingests, focussing on the narrative of Esau in Genesis 25 and descriptions of wine, bread and animals. Exploring the relationship between material colours and descriptions relating to the body offers a valuable perspective on Hebrew Bible colour perception; recognising the semiotics of these materials and their cultural use enriches our understanding of the biblical texts.

The next step is to ask where these materials come from, where the colour vocabulary comes from, and what the ramifications of these origins are. Chapter 5, "Provenance", analyses the linguistic etymology of various colour terms alongside the physical and geographic origins of the coloured materials; it develops an argument that there is a very close relationship between the two. Though some of these materials are native to ancient Israel/Judah and to Biblical Hebrew, the main focus of this chapter is the exotic geographical origins of the materials and their counterpart foreign languages. 5.2. examines Akkadian, Aramaic, Egyptian and Persian languages in relation to corresponding geographical regions, Mesopotamia, Egypt and the influence of the Achaemenid Empire, as well as those terms labelled "unprovenanced" which are certainly foreign but their origins ambiguous. These colour words are loanwords borrowed as trade networks opened up and new materials entered the Hebrew language.

Chapter 6, "Colour, Calamity and Cosmos", applies a set of broad ideas about materiality and provenance of colour to certain biblical texts (Ezekiel 27, Exodus 28, Lamentations 4, and Ezekiel 1) to show how they play out theologically in discussions of divine and moral interaction. Ezekiel 27 showcases the materials traded between Tyre and the rest of the ancient world. The text uses the metaphor of a ship built with the materials Tyre traded with, creating a micro-cosmic image.[153] The splendour of Tyre is reflected in these materials. However, broadening the literary scope to include Ezekiel 26, Tyre celebrates the fall of Jerusalem implying Tyre will benefit from its destruction (Ezek 26:1–2), but this idolatrous way of thinking ultimately means the ship and the fine materials that make up the ship are destroyed (Ezek 27:26–36).

[153] In the sense that the parts, the microcosms, make up the whole.

Exodus 28 describes the coloured materials used in the High Priest's garments, another form of micro-cosmic imagery. In comparison to the micro-cosmic imagery in Ezekiel 27, the High Priest's garments are not idolatrous, but the complete opposite: YHWH divinely chooses and instructs these materials to be a part of the robes. The vestments form a picture of opulence, social status and power.

Just as the fall of Tyre in Ezekiel 27 describes the sinking of materials, the fall of Jerusalem in Lamentations 4 describes a change in colours from what society had before the fall to what they have now. As in Exodus 28, where YHWH favours the brighter colours, the brighter materials in Lamentations 4 portray life before the collapse, but the destruction darkens and dims the colours, turning everything "black".

The final text explored in Chapter 6 is Ezekiel's theophany (Ezek 1), which uses colour language differently from the previous three texts. The use of similes shows that when describing the divine, the human language can only use earthly, precious objects as a comparison. It also links back to the idea of brightness and luminosity, and the relationship between radiance and colour provoking questions about כבד/*melammu* and colour. Overall, the chapter demonstrates that colour functions as the compelling link between human and the divine.

The conclusion of this thesis summarises cultural patterns of colour usage found across Homer, Herodotus and the Hebrew Bible. It demonstrates that there are similarities between the colours and materials in the corpuses, but that their linguistic use differs in subtle and significant ways. The conclusion underlies the significance of cultural and social themes to understanding ancient

colour perception. Colour perception is key to understanding other themes of the texts, including their traditions, rituals and cosmos.

2. Evidence of Colour Terms in Homer, Herodotus and the Hebrew Bible

This chapter studies Homer's *Iliad* and *Odyssey* and Herodotus' *Histories* to draw out the key themes of ancient Greek colour categorisation. These categories can then be applied to the biblical texts to show similarities and differences in colour perception between the cultures. This will be done by dividing the chapter into four sections: 1) Homer: *Iliad* and *Odyssey*; 2) Herodotus: *Histories*; 3) Hebrew Bible; and 4) Summary. The first three sections introduce the corpus, providing an outline of their plot and contents, followed by a brief discussion of date of composition and authorship. A table will then list the colour terms found in that text,[1] before a brief explanation tells the reader how they should use these tables. Each section ends with an in-depth analysis of patterns that arise from the data, which ultimately allows for an effective comparison between ancient Greek and Hebrew colour perception. The fourth section, the summary, emphasises these patterns and begin to compare them, taking into account the historical and literary factors (i.e., panchronicity) of each corpus. Analysing and comparing the patterns from the data emphasises key ideas common in both cultures. These topics point thematically forward and provide a foundation for the rest of the thesis.

2.1. Homer: *Iliad* and *Odyssey*

2.1.1. Introduction to the *Iliad* and *Odyssey*

For eighth-century BCE Greeks, epic performance included heroic stories for entertainment, historical continuity and ethical thought. The performer balanced practical experience in storytelling with familiar epic language, making the performance vivid but appropriate to the

[1] Further information and full tables of evidence may be found in the Appendices.

occasion.[2] The *Iliad* and *Odyssey* began this way, shaped by centuries of oral performances and incorporated material from other narratives in the Bronze Age and the Near East.[3] The words of an orally performed epic song were at some point recorded as written text. Overcoming the oral/written dichotomy is difficult as both forms of media parallel and continue to influence each other over the centuries. As this is a problem that also happens in biblical studies, one should be sensitive to the assumption of historiography behind oral traditions, and equally, the creative imagination behind the scribes who wrote down events that may or may not have happened. There are passages in the Homeric poems repeated word for word, but there are also large sets of stock themes and stock expressions, such as "wide-ruling Agamemnon" or "swift-footed Achilles", which the performer can reach for to fit the metric unit of the epic, thus hinting to epic poetry as performance.[4] The overarching question then, is do the *Iliad* and *Odyssey* reflect the Mycenaean society in which they are ostensibly set, in the Late Bronze Age, or do they rather represent the social world of the late eighth century, perhaps even later, when the epics likely took the form in which we know them today? Tracing the record of its subsequent reception helps to highlight the possibility of time-bound readings, and creates a healthy scepticism about objectivity and sensitivity to the approaches. The *Iliad* describes a short phase of the ten-year Trojan War with a preoccupation with morality (a common theme to the epic

[2] Ruth Scodel, "The Story-Teller and His Audience," in *The Cambridge Companion to Homer*, ed. Robert Fowler (Cambridge: Cambridge University Press, 2004), 45–58.
[3] Sarah Morris, "Homer and the Near East," in *A New Companion to Homer*, eds. Ian Morris and Barry B. Powell, MnemSup 163 (Leiden: Brill, 1997), 599–623; cf. John Miles Foley, "Epic as Genre," in Fowler, *The Cambridge Companion to Homer*, 171–88; Ken Dowden, "The Epic Tradition in Greece," in Fowler, *The Cambridge Companion to Homer*, 188–205; Andrew Ford, "Epic as Genre," in Morris and Powell, *A New Companion to Homer*, 396–414; *idem*., *Homer: The Poetry of the Past* (London: Cornell University Press, 1992), 13–56.
[4] An example where oral poetry is capable of preserving material from a distant time, can be seen in the use of bronze in the epics. Bronze had long been superseded by harder materials, such as iron, but the poets preferred to retain the formulae, rather than try to fit other more update materials to the metric unity. For a discussion on epic and history, see the essays in John Miles Foley, ed., *A Companion to Ancient Epic* (Oxford: Blackwell, 2005); David Konstan and Kurt A. Raaflaub, eds., *Epic and History* (Chichester: Wiley-Blackwell, 2010).

tradition);[5] the *Odyssey* picks up ten years after the Trojan War describing the drawn-out story of the Achaean hero Odysseus, determined to return to his wife.[6] Both blend events from Greek history, mythology and tradition to reveal their cultural worldviews.

Two schools of criticism dominate the debate over the origins, development and final form of both the *Iliad* and *Odyssey*. The Analytical school analyses the poems to distinguish the works of the original Homer and that of later editors and redactors; the Unitarian school stresses the design and artistic quality of the poems as the work of a single genius whom we call Homer.[7] These two schools map roughly onto diachronic and synchronic approaches. The authorship of the epic, then, remains debated; even if it is likely a historical Homer existed and performed some epic, there is no evidence that he wrote them down.[8] Though I consider the works of the Analytics, this study focusses primarily on the *Iliad* and *Odyssey* from the Unitarian perspective.

---

[5] Richard Rutherford, *Homer* (New York: Cambridge University Press, 1996), 30–57; Seth Schein, "The *Iliad*: Structure and Interpretation," in Morris and Powell, *A New Companion to Homer*, 345–59; Donald Lateiner, "The *Iliad*: An Unpredictable Classic," in Fowler, *The Cambridge Companion to Homer*, 11–30.

[6] Rutherford, *Homer*, 58–81; Stephen Tracy, "The Structures of the *Odyssey*," in Morris and Powell, *A New Companion to Homer*, 360–79; Michael Silk, "The *Odyssey* and Its Explorations," in Fowler, *The Cambridge Companion to Homer*, 31–44.

[7] For a discussion, see Robert Fowler, "The Homeric Question," in Fowler, *The Cambridge Companion to Homer*, 220–34.; cf. Martin West, "The Homeric Question Today," *Proceedings of the American Philosophical Society* 155 (2011): 383–93; Frank Turner, "The Homeric Question," in Morris and Powell, *A New Companion to Homer*, 123–45; John Foley, "Oral Tradition and Its Implications," in Morris and Powell, *A New Companion to Homer*, 146–73.

[8] The historical figure of Homer was also a mystery to the archaic Greeks let alone to modern authors. Some examples of debate include his birthplace [Barbara Graziosi, *Inventing Homer: The Early Reception of Epic* (Cambridge: Cambridge University Press, 2002), 13]; his dating [*ibid*., 90–124; Jan Paul Crielaard, "Homer, History and Archaeology: Some Remarks on the Date of the Homeric World," in *Homeric Questions: Essays in Philology, Ancient History and Archaeology, Including the Papers of a Conference Organized by the Netherlands Institute at Athens (15 May 1993)*, ed. Jan Paul Crielaard (Amsterdam: Gieben, 1995), 201–88; essays by Kurt Raaflaub, "Homeric Society," 624–48; Walter Donlan, "The Homeric Economy," 649–67; and Hans van Wees, "Homeric Warfare," 668–93 in Morris and Powell, *A New Companion to Homer*; M. L. West, "The Date of the *Iliad*," *MH* 52 (1995): 203–19; Oliver Taplin, *Homeric Soundings: The Shaping of the Iliad* (Oxford: Clarendon, 1992), 36; Barry Powell, *Homer and the Origin of the Greek Alphabet* (Cambridge: Cambridge University Press, 1991); *idem*., "Homer and Writing," in Morris and Powell, *A New Companion to Homer*, 3–32]; and his authorship [Barbara Graziosi, *Homer* (Oxford: Oxford University Press, 2016), 8–10; Barbara Graziosi and Johannes Haubold, *Homer: The Resonance of Epic* (London: Bloomsbury, 2005), 8, 18–19; Rutherford, *Homer*, 16].

2.1.2. Evidence of Colour Terms in the *Iliad* and *Odyssey*

I begin with a brief outline of the following tables: the first column numbers the chromatic expressions in a given text,[9] with the expressions displayed alphabetically in the second and third columns. As one can see, Homeric epic has 73 different colour terms, which collectively occur in the *Iliad* and *Odyssey* just under 1,400 times. The third columns show related and compound colour terms. The "Translation" column should be used as a guideline not a rule,[10] to give the reader a visible representation of the linguistic categories in Homeric Greek which can then be compared with Hebrew. The final column shows how many times a particular colour word appears in the text.

As noted in the introduction, the boundaries of colour categories are flexible, especially when anthropological research is not possible. The term ροδα ("rose") is a key example; Homer uses ροδοεις ("rose scented") and ροδοδακτυλος ("rosy-fingered"), but not ροδα itself. Herodotus, on the other hand, uses ροδα as a flower in the context of other plants and flowers (1.195.2; 2.92.4; 8.138.2), but no colour quality is involved. It could, then, be argued that Homer uses the term in Herodotus' meaning, referring to a plant, rather than a colour in and of itself. However, context suggests Homer is referring to the physicality of colour from the rose when he uses ροδοεις and ροδοδακτυλος, and perhaps also appealing to another cultural quality with the rose, such as the smell.[11] These charts provide a representative sample of colour phenomena from the texts in question, in order to give the reader an overview of colour terms and provide a foundation for the following arguments.

[9] Again, to reiterate, this is not exhaustive; arguments can be made for other words as fitting into conceptual colour categories. For this table, I have grouped together occurrences in the *Iliad* and *Odyssey*.
[10] Cf. Section 1.2. for the problems of translation, and *Table Five* which shows further guidelines from dictionaries.
[11] On colour as a multi-sensory experience in the Greco-Roman world, see Bradley, *Colour*.

	Colour Term	Related Terms	Translation	No. of Occ.[12]
1.	αιθαλοεις		smoky, sooty	4
2.	αιθων		shining, bright	18
3.		αιθοψ	sparkling, gleaming	36
4.		αιθιοψ	sparkly-skinned men	6
5.	αιολος		flashing, shimmering	6
6.		κορυθαιολος	a glancing helm	39
7.	αργος		shining, white	8
8.		αργεννος	white	6
9.		αργεστης	white	2
10.		αργης	white, bright	4
11.		αργινοεις	white	2
12.		αργιὀδους	white-toothed	4
13.		αργικεραυνος	bright	3
14.	αργυρεος		of silver	48
15.	γλαυκος		bright, gleaming	1
16.		γλαυκωπις	gleaming eyes	93
17.		γλαυκιαω	glaring eyes	1
18.	ελεφαντος		ivory	10
19.	ερυθρος		red	10
20.		ερυθαινομαι	to make red	2
21.	ηεροειης		misty, dark	16
22.	ηλεκτρον		amber	3
23.	ιον		violet	1[14]
24.		ιοεις	violet, darkness	1
25.		ιοειδης	violet-like	3
26.		ιοδνεφης	violet, dark hued	2
27.	κροκοπεπλος		yellow, saffron	4
28.	κυανεος		dark hue	8
29.		κυανεω	to be dark	13
30.		κυανος	dark hued enamel	3
31.		κυανοχαιτης	dark-haired	9
32.		κυανωπις	dark-eyed	1
33.		κυανοπεζα	dark steel feet	1
34.		κυανοπρωρος	dark-prowed ship	12
35.		κυανοπρωρειος	dark-prowed ship	1
36.	λευκος		light, bright, white	61
37.		λευκωλενος	white-armed	39
38.		λευκαινω	to make white	1
39.		λευκασπις	a white shield	1
40.	μαρμαρεος		glittering, sparkling	3
41.		μαρμαιρω	to sparkle, flash	9
42.	μελας		black, dark	183
43.		μελαινω/ μελανω	to grow/make black, dark,	3
44.		μελαυχροιης	dark-skinned	1
45.	μιλτοπαρηος		vermilion	2
46.	ξανθος		yellow	42
47.	οινοψ		wine-like hue	19
48.	πολιος		grey, greyish	72[13]
49.	πορφυρεος		purple, dark-gleaming	29
50.		πορφυρω	to heave, surge	6
51.		αλιπορφυρος	sea-purple	3
52.	πυρρος		yellowish-red	1
53.	ροδοεις		rose-scented	1
54.		ροδοδακτυλος	rosy-fingered	27
55.	σιγαλοεις		glossy, glistening	23
56.	σκοτος		darkness	16
57.	υακινθινος		hyacinth	2
58.	φοινιξ		red, purple pigment	7
59.		φοινικοεις	red, purple	4
60.		φοινικοπαρηος	red-purple prowed ships	2
61.		φοινηεις	blood red, tawny	2
62.		φοινος	blood red	2
63.		δαφοινος	blood red, tawny	4
64.	χαλκος		bronze	218
65.	χαροπος		glaring eyes	1
66.	χλωρος		greenish yellow	16
67.		χλωρηις	green, woody	1
68.	χρυσεος		of gold, golden	129
69.	χρυσος		gold	73
70.		χρυσοπτερος	with wings of gold	2
71.		χρυσοθρονος	golden-throned	15
72.		χρυσοχοος	goldsmith	1
73.	ψολοεις		sooty; flash of light upon a dark object	2

Table One

[12] The data for both Homer and Herodotus are based on the Perseus Classics Bundle in Accordance.

[13] Only 41 of these occurrences determine "grey"/"hoary", context shows the others signify "cities": *Il*. 1.350, 359; 4.248; 9.366; 10.334; 12.284; 13.352, 682; 14.31; 15.190, 619; 19.267; 20.229; 21.59; 22.74, 74, 77; 23.261, 374; 24.516, 516; *Od*. 2.261; 4.405, 580; 5.410; 6.272; 9.104, 132, 180, 472, 564; 11.75; 12.147, 180; 21.3, 81; 22.385; 23.236; 24.168, 317, 499.

[14] ιον is also the masculine singular accusative form of ιος ("arrows"/"poison") and the present active participle neutral singular nominative/accusative of ειμι ("I am").

2.1.3. Highlights and Patterns from the Data

From the evidence above, the key and salient patterns are twofold: 1) Homer uses terms that are part of BLACK, WHITE, GOLD, SILVER and BRONZE more frequently than other colour terms; and 2) terms for brightness, luminosity or radiance dominate the table. Homer's frequent use of μελας ("black") and λευκος ("white") – appearing 183 and 61 times, respectively, not including compound or verbal forms – reinforces the nineteenth-century idea that ancient colour terms fall on this spectrum, deriving from either light or dark.[15] However, the materials χαλκος ("bronze") appears 218 times and χρυσεος and χρυσος ("gold") appear 129 and 73 times, respectively, followed by αργυρεος ("silver") 48 times. Gladstone and many other scholars do not acknowledge GOLD, SILVER or BRONZE as colour terms, referring to its material function as a metal. Looking at its uses in the *Iliad* and *Odyssey*, however, this material phenomena may be understood chromatically, because both gold and silver are aesthetically-pleasing visual representations. Bronze too, is a very popular description of armour worn during battles, suggesting a strong relationship between its purpose as a material and as a colour used to create a stand-out image of the armies heading into conflict (e.g. *Il.* 2.457). This idea of ancient colour language including GOLD and SILVER has not yet been adopted by classical scholarship, but will be developed in this thesis. The physical, and tangible coloured materials go beyond metal, and originate from flowers,[16] dyes and pigments for example.[17]

Another commonly used colour term by Homer is γλαυκωπις ("gleaming"). This term comes from a common ancient Greek term γλαυκος. It is a heavily disputed term in scholarship for γλαυκος's translations and uses are so diverse.[18] The debate about the nature of γλαυκος can

[15] Cf. 1.1.1; Gladstone, *Studies*, 467–77; Wallace, *Color*, 29.
[16] ιον, ιοεις, ιοειδης, ιοδνεφης, κροκοπεπλος, ροδοεις, ροδοδακτυλος, υακινθινος, χλωρος, χλωρηις.
[17] μιλτοπαρηος, πορφυρεος, πορφυρω, αλιπορφυρος, φοινιξ, φοινικοεις, φοινικοπαρηος, φοινηεις, φοινος, δαφοινος.
[18] See Berlin and Kay, *Basic*, 70–1; Maxwell-Stuart, *Volume I: Glaukos*; Michel Pastoureau, *Blue: The History of a Colour* (Oxford: Princeton University Press, 2001); Susan Deacy and Alexandra Villing, "Athena Blues?

also apply to γλαυκωπις. In its 93 occurrences, Homer always describe the eyes of Athena as γλαυκωπις, referring to either the colour of her eyes, the gleaming/brightness of them, or to reflect the power and mesmerisation of her gaze. The associations of γλαυκος become extremely important in understanding a culture's perception of colour.

The interpretation of γλαυκωπις as Athena's bright/gleaming eyes raises a second point about the collection of colour terms: brightness and luminosity are significant to the Greek understanding of colour perception. The high frequency of terms that concern motion or light,[19] such as αιθων and αιθοψ (18 and 36 occurrences) or αιολος and κορυθαιολος (6 and 39 times), have been treated as adjectives of colour, because the rapid movement or change in light often assumes the appearance of "white".[20] Though this may be the case, Homer chooses the "sparkling", "gleaming" or "flashing", terms where a colour term would have been equally as suitable, to add a more dynamic and creative expression to the context. This suggests brightness and luminosity were incorporated into Greek colour perception, and as such, demonstrates there are other categories of visual stimulus.

In sum, the table of evidence from the *Iliad* and *Odyssey* shows the vast use of μελας and λευκος as well as χρυσεος and αργυρεος. This reinforces nineteenth-century ideas about Homeric colour perception of a scale between black and white, but also a new idea that Homeric Greek's chromatic understanding includes materials, like metals. The collection of data also shows multiple colour terms that relate to brightness and luminosity through words that denote radiance and brilliance, and words that translate as quick forms of motion. γλαυκωπις is an

Colour and Divinity in Ancient Greece," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 85–91.

[19] Gladstone (*Studies*, 478–91) first picked up on this idea.

[20] This is not a case to support the outdated idea that the ancients perceived colour *only* in terms of brightness and luminosity (Platnauer, "Greek," 162; Kober, "Some Remarks," 190), rather it emphasises the significance of brightness and luminosity on colour perception.

example of one of these terms, and how Homeric colour terms relate to the body. γλαυκωπις describes Athena's eyes, but there is also ελεφαντος ("ivory") in regards to complexion, λευκωλενος ("white-armed"), μελαυχροιης, ("dark-skinned"), αιθιοψ ("sparkly-skinned men") among many others, that are used in relation to the human body.

2.2. Herodotus: *Histories*

2.2.1. Introduction to the *Histories*

Herodotus' *Histories* is the first "prose" piece of the Greek tradition to comprise a multi-threaded text, unlike the work of geographers, mythographers, philosophers and historians before him. He uses their influences, plus inspirations from poetic predecessors like Homer,[21] to create a "new kind of literary prose",[22] termed a "proem", with elements of tragedy, elegiac poetry, legend and folktale. Herodotus abandoned conventional canons and shifted towards a new genre, a "great historiography." The *Histories* is thought to be written some three hundred years after Homer's *Iliad* and *Odyssey*, around the fifth century BCE.[23] It likewise had previous drafts and influenced by oral performances.[24] It centres on the war between the Greeks and the Persians, how they came to battle and how the Greeks won even though the Persians had more

[21] Herodotus directly mentions Homer (among other poets) in 2.23, 53, 116, 117; 4.29–32; 7.161; cf. John Marincola, "Herodotus and the Poetry of the Past," in *The Cambridge Companion to Herodotus*, eds. Carolyn Dewald and John Marincola (Cambridge: Cambridge University Press, 2006), 13–28 (14–16); Deborah Boedeker, "Epic Heritage and Mythical Patterns in Herodotus," in *Brill's Companion to Herodotus,* ed. Egbert J. Bakker, Irene J.F. de Jong and Hans van Wees (Leiden: Brill, 2002) 97–116; H. Erbse, *Studien zum Verständnis Herodots* (Berlin: de Gruyter, 1992), 122–132; Alan Griffiths, "Stories and Storytelling," in Dewald and Marincola, *The Cambridge Companion to Herodotus*, 130–44; D. Gary Miller, *Ancient Greek Dialects and Early Authors: Introduction to the Dialect Mixture in Homer, with Notes on Lyric and Herodotus* (Berlin: de Gruyter, 2014), 169–80.

[22] Donald Lateiner, *The Historical Method of Herodotus* (London: University of Toronto Press, 1989), 14.

[23] The date given to the composition/publication has slipped down through the decades of the 5thC BCE; Thomas Harrison and Elizabeth Irwin, "Introduction," in *Interpreting Herodotus*, ed. Thomas Harrison and Elizabeth Irwin (Oxford: Oxford University Press, 2018) 1–16 (9–11); Robert Fowler, "Herodotos and Athens," in *Herodotus and his World: Essays from a Conference in Memory of George Forrest*, eds. Peter Derow and Robert Parker (Oxford: Oxford University Press, 2003), 305–18 (306–7).

[24] On Herodotus and the oral tradition, see Oswyn Murray, "Herodotus and Oral History," in *The Historian's Craft in the Age of Herodotus*, ed. Nino Luraghi (Oxford: Oxford University Press, 2001), 16–44; *idem*., "Herodotus and Oral History Reconsidered," in Luraghi, *The Historian's Craft in the Age of Herodotus,* 314–25; David Asheri, "General Introduction," in *A Commentary on Herodotus: Books I-IV,* ed. Oswyn Murray and Alfonso Moreno (Oxford: Oxford University Press, 2007), 1–57 (13).

men and money. To offer further context, in 490 BCE, the Athenians resisted a Persian naval invasion on the north coast of Attica, causing Xerxes, the Persian king, to invade by both land and sea in an attempt to conquer all of Greece. However, the Atticans managed to thwart Xerxes' ambitions. The *Histories* also describe Herodotus' supposed travels to Egypt, Tyre, Arabia, Babylon, the coast of Pontus from Byzantium to Olbia, the Thracian coast and various islands. Though Herodotus' reputation as a historian is a long-debated issue,[25] Herodotus is generally thought of as a historical figure who travelled and performed/wrote.[26]

2.2.2. Evidence of Colour Terms in the *Histories*

The table below should be used in the same way as that above. It shows how many colour terms feature in Herodotus' *Histories*. The corpus has 40 colour terms which appear a total of 352 times. The translations again, should be taken as a guideline.

[25] This is because of the conflicting narratives, tall-tales and inconsistencies. See, for example, Jessica Priestley, *Herodotus and Hellenistic Culture: Literary Studies in the Reception of the Histories* (Oxford: Oxford University Press, 2014); Oswyn Murray, "Herodotus and Hellenistic Culture," *CQ* 22 (1972): 200–13; Rosalind Thomas, "Truth and Authority in Herodotus' Narrative: False Stories and True Stories," in *Herodotus: Narrator, Scientist and Historian*, ed. Ewen Bowie (Berlin: de Gruyter, 2018), 265–85; A.D. Morrison, *Apollonius Rhodius, Herodotus and Historiography* (Cambridge: Cambridge University Press, 2020).

[26] Again, there are both Analytic/diachronic and Unitarian/synchronic approaches to the *Histories*. Fornara envisaged the two schools as compatible, merely serving "different ends", Charles Fornara, *Herodotus: An Interpretative Essay* (Oxford: Clarendon Press, 1971), 5. This inspired Lateiner, who was determined not to figure out whether Herodotus was right historically, but how he arrived at his conception and exposition (i.e., as an example of using one to look at the other, he carries out "an analysis of the prevailing literary habits of the *Histories*"); Lateiner, *Historical*, 5, 230 fn.10; cf. Robert Drews, *The Greek Accounts of Eastern History* (Washington, DC: Center for Hellenic Studies, 1973), 49.

	Colour Term	Related Terms	Translation	No. of Occ.
	αργυρεος		silver	19
2.	αργυριον		piece of silver money	29
3.		αργυρος	silver, money	17
4.		επαγυρος	covered with silver	2
5.		καταργυρος	covered with silver	1
6.	γλαυκος		shining, gleaming?	2
7.	διαφανης		glowing	3
8.	ελεφαντος		ivory	3
9.	ερυθρος		red	27
10.	ηλεκτρον		amber	2
11.	ιον		violet	11
12.	κυανεος		dark, black?	1
13.	λευκος		white	24
14.		λευκοτης	whiteness	1
15.	μελας		black, dark	15
16.	μιλτος		ochre, red earth	2
17.		μιλτηλιφης	painted red	1
18.	μιλτοω		to paint/dye red	1
19.	πορφυρεος		purple	5
20.		πορφυρα	purple dye	1
21.	πυρρος		red, yellow-red	2
22.	σανδαρακινος		orange	1
23.	σκοτος		darkness, gloom	2
24.	σμαραγδος		emerald	2
25.	φοινικεος		purple-red	4
26.	χαλκος		bronze	18
27.	χλοη		a green shoot	1
28.	χρυσεος		to make gold, golden, gold	60
29.	χρυσιον		a piece of gold	11
30.	χρυσος		gold	65
31.		επιχρυσος	covered with gold	3
32.		καταχρυσοω	covered with gold	6
33.		χρυσιτης	contains gold	1
34.		χρυσοδετος	bound in gold	1
35.		χρυσοκομοσ	golden-haired	1
36.		χρυσοπαστος	gold-sprinkled	1
37.		χρυσοφορεω	to wear gold ornaments	2
38.		χρυσοφυλαξ	gold-keeper	2
39.		χρυσοχαλινος	a gold-studded bridle	1
40.		χρυσοω	to make golden	1

Table Two.

2.2.3. Highlights and Patterns from the Data

The evidence for colour terms in the *Histories* promotes similar linguistic categories as the Homeric collection of data. μελας and λευκος appear 15 and 24 times respectively; χρυσος and χρυσεος appear 65 and 60 times respectively; and αργυρεος, αργυριον and αργυρος (all denoting "silver" of some kind) appear 19, 29 and 17 times, respectively, not including any compounds or related terms. Most of the uses of GOLD and SILVER refer to physical monetary pieces of gold/silver exchanged for economic purposes, perhaps suggesting colour was not involved in these contexts. However, the other uses (as described in *Table Seven* in the Appendices) are instances where the colour of material can epitomise the visual imagery of the situation and are surrounded by other colour terms; for example, the seal (3.41.1), the phoenix (2.73.2) or the adorned horse (9.20). Similarly, χαλκος ("bronze") occurs 18 times but denotes

the material in most cases. This reinforces the significance of the relationship between materiality and colour.

Herodotus uses terms to convey the brightness of something, such as the disputed term γλαυκος ("shining, gleaming") or διαφανης ("glowing"). Herodotus also describes the opposite, the lack of brightness, with κυανεος ("black, dark") or σκοτος ("darkness, gloom"). Even more interesting is that ερυθρος ("red") is used 27 times. Nineteenth-century scholars would assume that, in the three hundred years after Homer, the language and colour perception evolved, such that the red wave-length was more popular.[27] However, when looking at the contexts of ερυθρος, only five of these occurrences do not describe the "Red Sea" (2.12.3; 2.73.2; 2.111.3; 3.57.4; 3.58.2). Thus, the question arises as to whether ερυθρος θαλασσα ("red sea") is a chromatically charged term. Homer uses many epithets of colour to describe the sea,[28] as many scholars argue that these contain colour language.[29] Do these other colour epithets towards the sea imply that Herodotus does the same with ερυθρος θαλασσα? It is unclear whether Herodotus was referring to the actual geographical location of the Red Sea, a visual description of that sea, or both. Herodotus was one of the early pioneers of this description, basing it upon the combination of local features, such as the colour of mountains, desert sands, corals and phosphorescence.[30] However, the *Histories* shows no evidence that Herodotus saw ερυθρος θαλασσα as a chromatically charged term, other than the use of "red". Otherwise, ερυθρος

[27] See 1.1.1.
[28] λευκος ("white"); πολιος ("grey); ιοειδης ("violet-like"); ηεροειης ("misty, dark"), μελας ("black"), plus μαρμαρεος ("glittering, sparkling); see, for example, *Od.* 10.94; *Il.* 1.350; *Od.* 5.56; *Il.* 23.744; *Il.* 24.79; *Il.* 14.273; cf. Grand-Clément, *La fabrique*, 9–10.
[29] Homer's infamous οινοψ ποντος ("wine-dark sea") can be seen to reflect the twilight setting [R. Rutherford-Dyer, "Homer's Wine-Dark Sea," *GR* 30 (1983): 125–8]; relate to the idea of danger [Clarke, "The Semantics," 136]; reflect the tragedy that has just happened [Mark Bradley, "Colour as a Synaesthetic Experience in Antiquity," in *Synaesthesia and the Ancient Senses,* ed. Shane Butler and Alex Purves (New York: Routledge, 2013), 127–40 (132–3)]. Kober (*The Use*, 35) suggested the existence of "blue wine" comparable in colour with the sea. Cf. Maxwell-Stuart, *Volume I: Glaukos*, 6–11. Irwin (*Colour,* 202) translates οινοψ as "dark and gleaming" rather than "wine".
[30] Maurice Copisarow, "The Ancient Egyptian, Greek and Hebrew Concept of the Red Sea," *VT* 12 (1962): 1–13 (5); Norman H. Snaith, "The Sea of Reeds: The Red Sea," *VT* 15 (1965): 395–8 (395).

appears chromatically five times, followed by πορφυρεος ("purple") and φοινικεος ("purple-red") both appearing four times. These RED/PURPLE categories must be significant to Herodotus as all other colour terms and compounds appear only once or twice in the *Histories*.[31] Furthermore, the uses of πορφυρεος, φοινικεος, πυρρος ("red"), and μιλτος/μιλτοω ("red earth"/"to dye red") all relate to the body. The RED/PURPLE categories describe painted bodies (4.191.1; 4.194.1; 7.69.1) or people wearing purple or red dyed garments (1.152.1; 3.139.2), as something characters put upon their natural body to alter its appearance.

To summarise, Herodotus uses μελας and λευκος, χρυσος/χρυσεος and αργυρεος most frequently, compared to other colour terms. GOLD and SILVER reinforce the idea of a relationship between materiality and colour. Though Herodotus' uses are less poetical and more about the materials for their metal usage, such as money and basins etc., there are instances where "gold" and "silver" aid the visual imagery and add descriptive value. This is furthered by Herodotus' interest in the RED and PURPLE colour categories. He describes various physical materials, such as dyes and paint, that adorn the and change its natural appearance.

2.3. Hebrew Bible: *Biblia Hebraica Stuttgartensia (BHS)*

2.3.1. Introduction to the Hebrew Bible

The Hebrew Bible is a collection of multiple texts, genres and themes. It consists of oral traditions, written by multiple authors, editors and redactors. The Hebrew Bible covers a vast time period and large geographical area. The Hebrew language (sometimes influenced by other languages, such as Aramaic) evolved over time. Scholars variously categorise its biblical parts as Early Biblical Hebrew (EBH), Classical or Standard Biblical Hebrew (CBH/SBH), and Late

[31] Initially, the lack of use and multiple *hapax legomena* cause problems in understanding Herodotus' perception of colour. Looking at these terms in other Greek texts does not particularly help. It does tell us, however, Herodotus did not use colour to describe his surroundings often.

Biblical Hebrew (LBH).[32] There are also varying literary styles and genres: historical narratives, laws, prophetic writings, biblical poetry, wisdom literature etc. Discussing these influences here is beyond the scope of this section.[33] One can study the Hebrew Bible theologically, ideologically, philologically, philosophically and historically. All of these aspects demonstrate the difficulty in viewing the Hebrew Bible as a single piece of literature. Thus, it would initially seem sensible to stick to a genre, or a particular book or narrative, to use as a comparison to Homer and Herodotus. However, the tables of evidence from the Hebrew Bible show the use of colour is sporadic and sparse, meaning it would be untenable to compare colour from the same genre, book or narrative. From a panchronic (which incorporates the variety of genre, subject matter, chronology and space) and a typological perspective (which assumes differences within the texts are a collective representation of the culture) one can take into account these available factors when studying colour across the Hebrew Bible and create an effective comparative study, one that is sensitive to the approach and to the diversity attested in the corpus.

2.3.2. Evidence of Colour Terms in the *BHS*

The table below should be used in the same way as with 2.1.2. and 2.2.2 previously. It shows how many colour terms feature in the *BHS*, which is the primary edition of the Masoretic Text

[32] See, for example, Dong-Hyuk Kim, *Early Biblical Hebrew, Late Biblical Hebrew, and Linguistic Variability: A Sociolinguistic Evaluation of the Linguistic Dating of Biblical Texts* (Leiden: Brill, 2013); Avi Hurvitz, "Can Biblical Texts Be Dated Linguistically? Chronological Perspectives in the Historical Study of Biblical Hebrew," in *Congress Volume, Oslo 1998*, eds. André Lemaire and Magne Saebø, VTSup 80 (Leiden: Brill, 2000), 143–60; *idem*., "The Recent Debate on Late Biblical Hebrew: Solid Data, Experts' Opinions and Inconclusive Arguments," *HS* 47 (2006): 191–210.

[33] See various companions and introductions to the Hebrew Bible, Sandra L. Gravett et al., *An Introduction to the Hebrew Bible: A Thematic Approach* (Louisville, KY: Westminster John Knox, 2008); John J. Collins, *Introduction to the Hebrew Bible* (Minneapolis, MN: Fortress, 2014); Stephen B. Chapman and Marvin A. Sweeney, eds., *The Cambridge Companion to the Hebrew Bible/Old Testament* (New York: Cambridge University Press, 2016); Leo G. Perdue, ed., *The Blackwell Companion to the Hebrew Bible* (Oxford: Blackwell Publishers, 2001).

of the Hebrew Bible.[34] The corpus has 106 different colour terms that appear across the biblical texts over 1750 times. Again, translations should be taken as a guideline.

	Colour Term	Related Term	Translation	No. of Occ.[35]
1.	אדם		to be/become red	11
2.		אדם	red	9
3.		אדם	red gemstone: ruby, carnelian	3
4.		אדמדם	reddish	6
5.		אדמני	red, ruddy	3
6.	אחלמה		amethyst	2
7.	אמצים		dappled	2
8.	ארגמן		purple, purple dyed material	38
9.	ארגון		purple	4
10.	בד		white linen	23
11.	בהט		porphyry	1
12.	בוץ		byssus; fine linen	8
13.	ברד		spotted	4
14.	ברזל		iron	76
15.	ברמים		multi-coloured cloth	1
16.	ברקת		emerald	3
17.	גר		chalk, lime	1
18.		גיר	chalk, lime, plaster	1
19.	דיו		ink	1
20.	דר		mother of pearl	1
21.	יהלם		jasper; onyx	3
22.	זהב		gold	389
23.	זיו		brightness, splendour	6
24.	זך		pure, clean	11
25.		זכך	to be pure, clean	4
26.	חום		brown	4
27.	חור		to be white; to grow pale	1
28.		חור	white	1
29.		חור	white	2
30.		חורי	white stuff	1
31.		חורי	white bread	1
32.	חכליל		sparkling, redness	1
33.		חכללות	sparkling, redness	1
34.	חמץ		to be sour, leavened	7
35.	חמר		to boil up, to redden	5
36.	חשך		to be dark; to grow dark	18
37.	חשמל		bronze; amber	3

	Colour Term	Related Term	Translation	No. of Occ.
54.		ירקרק	greenish	3
55.	כרמל		crimson	4
56.	כרפס		fine linen	1
57.	כתם		gold	9
58.	לבן		to be/become white	5
59.		לבן	white	29
60.	לשם		jacinth; carnelian?	2
61.	נחשת		bronze, copper	140
62.	נפך		turquoise gemstone?	4
63.	נקד		spotted, speckled	9
64.	ספיר		sapphire, lapis lazuli	11
65.	עקד		striped	7
66.	פארור		a flush of redness	2
67.	פוך		eye make-up, antimony	4
68.	פז		gold	9
69.	פטדה		topaz	4
70.	פנינים		coral, rubies	6
71.	פסים		coloured tunic	5
72.	פרזל		iron	20
73.	צהב		to gleam, glitter	1
74.		צהב	gleaming, yellow, red-yellowish	3
75.	צה		dazzling, glowing	4
76.		צחח	to dazzle; to glow	1
77.	צחר		reddish-grey	1
78.		צחר	tawny, white	1
79.	קדר		to be/become dark/black	17
80.		קדרות	darkness	1
81.		קדרנית	mournfully	1
82.	ראמה		corals	2
83.	רמון		pomegranate	32
84.	רענן		to be green, luxuriant, leafy	21
85.		רענן	flourishing	1
86.	רקם		to variegate, weave coloured cloth	9
87.		רקמה	coloured, embroidered fabric	12
88.	שׂיב		to be grey-haired	2
89.		שׂיב	elder, hoary	5
90.		שׂיבה	grey hair	19

[34] Unless otherwise stated, the data and translations of the Hebrew Bible are taken from the *BHS*.
[35] The data collected in this column is from *BHS* on Accordance.

38.	טלא		to spot, variegate	8
39.	יַהֲלֹם		clear/milky gemstone	3
40.	ירק		green plants	1
41.		ירק	green, grass	8
42.		ירק	green herbs	3
43.		ירקון	paleness of face, greenish-yellowness of plants	6
44.	יֹשְׁפֵה		jasper	3
45.	כדכד		red gemstone: ruby	2
46.	כהה		dim, dull, faint, colourless	9
47.		כהה	red gemstone: ruby, agate	2
48.	כחל		to paint (eyes)	1
49.	כמריר		darkness, gloominess	1
50.	כסף		silver, money	403
51.		כסף	silver, money	13
52.	כפר		henna	17
53.	כרכם		saffron	1

91.	שִׂיד		to plaster, paint with lime; lime, plaster	6
92.	שָׁרֹק		deep red, purple, sorrel	1
93.		שֹׂרֵקִים	a grape vine	1
94.	שְׁבוֹ		agate	2
95.	שֹׁהַם		onyx?	11
96.	שְׁחַר		to be/become black	1
97.		שְׁחַר	black	7
98.		שְׁחַרְחֹרֶת	dark skin	1
99.		שְׁחֹרֹת	blackness of hair	1
100.	שַׁיִשׁ		marble	1
101.	שָׁנִי		scarlet	42
102.	שֵׁשׁ		white linen; alabaster, marble	41
103.	שַׁשַׁר		vermilion	2
104.	תְּכֵלֶת		violet, violet dyed material	49
105.			worm; crimson	44
106.	תַּרְשִׁישׁ		beryl; yellow jasper	7

Table Three

2.3.3. Highlights and Patterns from the Data

The most frequently used colour terms are זהב (“gold”) and כסף (“silver”), appearing 389 and 403 times, respectively. The addition of נחשׁת (“bronze”) and even ברזל (“iron”), which occur 140 and 76 times, highlights the significance of materials, as in Homer and Herodotus. Some of these occurrences refer to the metal itself, as a material used for money or vessels and utensils, but the majority of occurrences describe something “gold-” or “silver-”coloured and is used to convey the value of the material, as well as adding to the rich, visual sensory image. Remarkably, these coloured metals are used around eight times as often as the next most common colour term.

The next most frequently used colour terms are תכלת (“violet”), which appears 49 times; ארגמן /ארגון (“purple”) 38/4 times; שני (“scarlet”) 42 times; תולע (“crimson”) 44 times; and the root אדם (“red”) 32 times. Like Herodotus before, this suggests the RED and PURPLE colour categories are significant. Apart from אדם, these terms refer to dyed materials and are used as symbols of

opulence, status and, in the case of תכלת and ארגמן in particular, political power (e.g., Esth 8:15; Dan 5:7, 16, 29).[36] PURPLE represents something foreign, but also reflects good relations.

In terms of frequency, לבן ("white") follows, with 29 occurrences. Contrary to expectations raised by Homer and Herodotus, the roots שׁחר, קדר and possibly חשׁך (BLACK) are further down the number of occurrences. Brenner suggested the reason BLACK does not appear in any text prior to the exilic period is "accidental",[37] and that the roots קדר and חשׁך may have originally been the primary terms for "black", later supplanted by שׁחר.[38] The replacement of one colour term with another also happens with WHITE, where חור is found in EBH and in the pre-exilic texts, but then drops out and switches to לבן. Then, in LBH, the favoured "white" colour term לבן reverts to חור during the post-exilic period, under the influence of Aramaic and socio-cultural influences.[39]

The table shows a number of translations that may not appear chromatically charged. For example, חמץ ("to be sour, leavened") sometimes refers to dough; other contexts suggest visual appearance related to RED, such as the dyed red garments in Isaiah 63:1 or the bloody feet in Psalm 68:24.[40] Similarly, זכך ("pure, clean"), קדרנית ("mournfully"), and רענן ("luxuriant, flourishing") are considered chromatic because of their contexts and associations with chromatic language, which contribute to understanding WHITE, BLACK, and GREEN, respectively. This shows that both particular colour words *and* context contribute to colour categories in the Hebrew Bible.

[36] Norman J. Cohen, *Masking and Unmasking Ourselves: Interpreting Biblical Texts on Clothing and Identity* (Woodstock, VT: Jewish Lights, 2015), 143–58; Joshua Joel Spoelstra, "Mordecai's Royal Vestments: Princely And/Or Priestly," *OTE* 32 (2019): 174–96.
[37] Brenner, *Colour Terms*, 57.
[38] *Ibid.*, 57.
[39] *Ibid.*, 133.
[40] *Ibid.*, 131.

Finally, *Table Three* shows multiple colour words that relate to the idea of brightness and luminosity. My decision to include these words in this table of colour lexemes is reinforced by the context in which they appear. For example, חכליל and חכללות ("sparkling, redness"), צהב ("gleaming, glittering") and צחח ("dazzling, glowing") all feature in contexts that contain other colour terms: צח appears in Song 5:10 alongside אדם to describe the male character; צחח features in Lamentations 4:7 juxtaposed with אדם, פנינים and ספיר. These words of brightness and luminosity add to the overall chromatic experience. Furthermore, some colour words allude to brilliance and radiance themselves, including, for example the multiple gemstones in Exodus 28 and חשמל ("bronze"), which in Ezekiel resembles the brightness of fire (Ezek 1:4, 27; 8:2). There are also expressions for the direct opposite of brightness and luminosity, conveyed by כהה ("dim, dull, faint,"), כמריר ("darkness, gloominess"), and the root קדר ("black, dark"). These contexts describe a gloomy situation and a distinct lack of light and brightness. For example, כהה conveys blindness of the eyes (Gen 27:1; Deut 34:7; 1 Sam 3:2 etc.), כמריר is the dark day Job was born (Job 3:5), and קדר covers the darkness of the heavens (see, e.g., 1 Kgs 18:45; Jer 4:28; Ezek 32:7, 8). The preceding demonstrates that terms that denote brightness, luminosity, radiance and vividness should be included when discussing chromatic language. The Hebrew Bible uses these terms to add to the overall experience of the context and to reflect the chromatic situation further.

In summary, the Hebrew Bible frequently uses זהב and כסף to convey something "gold"- and "silver"-coloured; נחשׁת and ברזל function both as metals and as descriptive terms to enhance an overall image. It is important to approach this study panchronically in order to take into account cultural influences and evolving language. Like WHITE, RED has the post-exilic term כרמל which replaces תולע and שׁני. However, the root אדם ("red") appears frequently throughout all stages of

the Hebrew Bible, as does PURPLE (תכלת and ארגמן/ארגון). Like Herodotus, there is a prominence of RED and PURPLE, which suggests that these are significant colour categories in the Hebrew Bible. In fact, the use of RED and PURPLE in the biblical texts are central in themes of wealth, different types of power, and social status. Lastly, the inclusion of brightness and luminosity as part of the Hebrew Bible's chromatic language is reinforced by the fact that these terms are juxtaposed with other colour terms in certain contexts and the fact that colour terms themselves allude to brightness as well as hue.

2.4. Summary

This chapter has presented a brief introduction to each corpus and outlined a collection of colour terms in the *Iliad*, *Odyssey*, the *Histories* and the Hebrew Bible. It then picked out the main highlights and patterns that provide the framework for the rest of this thesis: 1) there is a relationship between colour and materials, as well as the body; 2) brightness and luminosity play a key role in ancient colour perception; and 3) PURPLE and RED are also significant colour categories. μελας and λευκος ("black" and "white") are used frequently throughout Homer and Herodotus, but equivalent terms are less popular in the Hebrew Bible. All three corpora use "gold" and "silver" often; these have not been considered colour words by previous scholars, but their usage demonstrates that colour concepts are tied up with the material phenomena. Chapter 4 of this thesis establishes that most of these colour words are fundamentally linked with materials. Furthermore, the body plays a vital role in the relationship between colour and materiality. This is something that has been teased out from this chapter, where Homer uses multiple colour words to describe the natural body, and Herodotus places emphasis on adorning this natural body with unnatural materials, such as jewellery and dyed garments. Similarly, the

Hebrew Bible mentions chromatic descriptions of both the natural body and the "unnatural" body.[41]

Homer, Herodotus and the Hebrew Bible all have terms that denote radiance, vividness, brightness and luminosity as part of their chromatic language. This ambiguous terminology could refer to the amount of light reaching the eye, which can be expressed by "dazzling", "glowing", and "shining",[42] or brightness as reflectivity, which depends on surface materials to reflect the light produced elsewhere.[43] Both Homer and Herodotus have terms that could interpret brightness as light-emission or reflective off water – for example, γλαυκωπις, γλαυκος, αιθων, αιθοψ and αιολος – as does the Hebrew Bible with חכליל and חכלולות, and the roots צהב and צהה. The biblical terms in their contexts of brightness mostly appear alongside coloured materials and colour words.

This chapter drew attention to the significance of combining literary and historical factors. The Hebrew Bible table shows two terms for WHITE, used depending on cultural influences. This chapter also poses questions about differences in literary form between epic, poetry and prose. Robert Kawashima illustrates how biblical narratives share certain formal compositional devices with oral-traditional poetry, and thus can effectively be compared.[44] This is something that the next chapter dwells on. As all three tables emphasise the significance of PURPLE in

[41] Here, and throughout the rest of this thesis, the "unnatural" body or the "unnatural" skin can be understood as the dress and adornment (that is, unnatural materials) placed upon the body which communicates personal and social identity; it is understood and interpreted by others in specific ways. Terence Turner has previously coined this idea the "social skin", but to show a more direct comparison between the natural body (skin, hair, eyes etc.), I opt for "unnatural"; see Terence S. Turner, "The Social Skin," *Journal of Ethnographic Theory* 2 (2012): 486–504.

[42] Biggam, *Semantics*, 123.

[43] *Ibid.*, 124.

[44] Robert S. Kawashima, *Biblical Narrative and the Death of the Rhapsode* (Bloomington, IN: Indiana University Press, 2004), 124–89; *idem.*, "Verbal Medium and Narrative Art in Homer and the Bible," *Philosophy and Literature* 28 (2004): 103–17.

particular. PURPLE occurs over a large time period and is used in a variety of literary forms, thus a colour category worth further comparative study. “Sea-purple” is a material worn upon the body made from the *murex* shell that primarily comes from the shallow waters of the Phoenician seashore; it was exported and imported across the ancient world from a very early age. Its use in poetry reflects what is happening in the surrounding environment (e.g. a chaotic and distressing situation) and in prose is a symbol of opulence, social status and different types of power. With this in mind, the next chapter showcases the materiality of PURPLE, where PURPLE comes from, and the semantic significance that surrounds ancient PURPLE.

3. Perceptions of Purple

The previous chapter offered a first glance at the evidence that might be used to discuss ancient colour perception, illustrating the similarities and patterns in Homeric epic, Herodotus' *Histories*, and the Hebrew Bible. This chapter will now take one especially important colour category, PURPLE, and highlight its use across the different cultures. The popularity of both Greek πορφυρα and Hebrew תכלת/ארגמן ("sea-purple") shows PURPLE has great importance in both cultures. The translation "sea-purple" covers the true, genuine *murex* purple, as there were cheaper forms (i.e., as counterfeit, imitation or fake purples), manufactured from animals, minerals and vegetable dyes.[1] The aim of this chapter is to explore the relationship between the archaic and classical Greek understanding of *murex* purple and that of the Hebrew Bible.

This chapter studies the history of "sea-purple", emphasising how it was a material and physical phenomenon that travelled across the ancient world. It became a symbol of status throughout antiquity. Previous scholarship has established how highly prized "sea-purple" was: classicists, anthropologists and sociologists have all looked in depth at the impact of "sea-purple" on ancient cultures; and archaeologists, historians and scientists have tried to remake the exact sea-purple dye described in these ancient texts.[2] Brenner, Hartley, and Gradwohl discussed "sea-purple" from a biblical studies point of view, albeit only briefly.[3] Isaac Herzog made the first

[1] Bradley, *Colour*, 201–2; Thavapalan, *Meaning*, 227; Deborah Ruscillo, "Reconstructing *Murex* Royal Purple and Biblical Blue in Aegan," in *Archaeomalacology: Molluscs in Former Environments of Human Behavior*, ed. Daniella E. Bar-Yosef Mayer (Oxford: Oxbow Books, 2005), 99–106 (100); on other ancient counterfeit materials, Cecilie Brøns, "Ancient Colours: Perspectives and Methodological Challenges," in Thavapalan and Warburton, *The Value of Colour*, 311–37 (321–3).
[2] Ruscillo, "Reconstructing"; I. Irving Ziderman, "Seashells and Ancient Purple Dyeing," *BA* 53 (1990): 98–101; *idem*., "Purple Dyes Made from Shellfish in Antiquity," *Review of Progress in Coloration* 1 (1986): 46–52; Ehud Spanier and N. Karmon, "Muricid Snails and the Ancient Dye Industries," in Spanier, *The Royal Purple*, 176–96; Patrick E. McGovern and R.H. Michel, "Royal Purple Dye: The Chemical Reconstruction of the Ancient Mediterranean Industry," *Accounts of Chemical Research* 23 (1990): 152–8.
[3] Brenner, *Colour Terms*; Gradwohl, *Die Farben*; Hartley*, Semantics*.

serious attempt to uncover the details of the purple dye industries in ancient Israel.[4] Though his primary focus was the use of ארגמן and תכלת dyes in Jewish ceremonial usage, his enquiry explored the archaeological, historical, chemical, biological, and technical aspects of the dye. He also looked at these aspects from a comparative point of view, comparing *taklitu* and *argammanu* in the cuneiform texts, as well as υακινθινος and πορφυρα in the LXX, and how Philo and Josephus interacted with the marine shell-snails' origins.[5] This chapter examines the history of "sea-purple", its significance as a material phenomenon in Homer, Herodotus and the Hebrew Bible, and its associations within each of these cultures.

Homeric epic, Herodotus' *Histories* and the Hebrew Bible consist of different writing styles and genres, and this chapter also demonstrates the significance of literary forms. The works of Gladstone saw Homer as prime example of skewed colour perception, and as a result more recent chromatic studies have shied away from poetry, perceiving it as an unreliable source. Lydia Pelletier-Michaud, however, argued the possible "inaccuracies" or "anachronisms" regarding hues and pigments are "not relevant":

> if we approach the chromatic allusions by poets looking for consistency with material culture, we might miss the most important part of their testimony. But when it is studied for what it is – literature –, poetry can provide valid historical information.[6]

Eric Auerbach compared Homeric epic and biblical narrative, juxtaposing Odysseus's scar in *Odyssey* 19 and the binding of Isaac in Genesis 22.[7] He demonstrated that the epithets Homer attaches to his heroes endow them with virtues, but that no such epithets are found in the biblical

[4] His doctoral dissertation was not immediately published, but later edited and revised, see Herzog, "Hebrew," 17–131.
[5] *Ibid.,* 50–7.
[6] Pelletier-Michaud, "Colour me Greek," 304.
[7] Auerbach, *Mimesis*, 3–23.

prose.[8] He explained that Homer presents everything in a fully illuminated "foreground", whereas biblical narrative is "fraught with background". Kawashima argued that Auerbach's point was not to denigrate Homer's aesthetic achievement, but to distinguish between two modes of narrative art.[9] Auerbach is more interested in the construction of reality across two world-views, and in doing so he inadvertently demonstrated that poetry is comparable to prose.

When Homeric epic and Hebrew poetry use πορφυρεος/ארגמן, poetic ekphrasis occurs; that is vivid descriptions of purple prompt a sensory experience. For instance, when Homer uses πορφυρεος to describe the sea, he recalls interpretations from the verbal form of πορφυρεος, πορφυρω ("heaving", "troubling").[10] By describing the sea as "sea-purple", he creates an image of distress, tragedy and a multi-sensory experience that is chaotic and tangible. Grand-Clément argued that when Homer describes purple sea he does not only talk about its dark hue and agitated nature, but also its low rumble.[11] Making purple dye was a pungent and laborious process, garments were also scented with a particular smell of the sea, adding to its sensory appeal.[12] Similarly in the Hebrew Bible, Song of Songs uses ארגמן to describe the female character's hair in 7:6a.[13] ארגמן is parallel to the king being captive in רהטים ("tresses") on the third stitch in 7:6c. This is one of the most sensuous images in the book; Patrick Hunt argues "it would be a most willing captivity" and a "common male fantasy", suggesting how luxuriant and full her hair must be to bind him.[14] It is intensely tactile for the male lover to be entangled

[8] *Ibid.,* 6–9.
[9] Kawashima, *Biblical Narrative*, 161–89; *idem*., "Verbal Medium," 103.
[10] Grand-Clément argued that πορφυρεος as *murex* "sea-purple" or πορφυρω as "heaving" does not matter. Homer plays on this semantic ambiguity feeding the richness of possible interpretations; Grand-Clément, *La fabrique*, 116.
[11] "…mais également son grondement sourd"; Grand-Clément, *La fabrique*, 117.
[12] Ovid, *Art of Love*, 3.171–2; Alexandra T. Croom, *Roman Clothing and Fashion* (Stroud: Tempus, 2010), 16.
[13] Here, and elsewhere, verse numbering in square brackets references English translations; otherwise, numbering taken from *BHS*.
[14] Patrick Hunt, *Poetry in the Song of Songs: A Literary Analysis*, StBibLit 96 (New York: Peter Lang, 2008), 266.

in the female character's hair, and the fish smell in this context is euphemistic. In addition, Marvin Pope likens רהטים to its other occurrences in Genesis 30:38, 41 and Exodus 2:16, which describe troughs of water for flocks and thereby relate purple hair to moving water – again, a tangible experience.[15] Going forward, this idea of genre and style of text is something to consider when looking at the Hebrew Bible's understanding of colour perception.

With all this in mind, this chapter acknowledges Herzog's historical comparative analysis as well as genre-criticism to examine the classical and Hebrew Bible's use of "sea-purple". Comparing the use of one colour in Homer's *Iliad* and *Odyssey* and Herodotus' *Histories* with the equivalent colour in the biblical texts shows both similarities and differences in their perception of purple. They are similar in that "sea-purple" is a material phenomenon with a highly prized status, but different in terms of linguistic, cultural and political properties. The semiotics of "sea-purple" in the biblical corpus have overlapping semantic meanings with the Greek understanding and portrayal of "sea-purple", but dwells on different associations. Homer, Herodotus and the Hebrew Bible use the "sea-purple" material as a central reference to a character's portrayal of wealth, types of power and their social status, and, interestingly, relate purple to the divine. Homer, however, uses the material to convey the significance of the hero, as well as reflecting chaos and tragedy. Herodotus uses the material to convey the importance of "sea-purple" in relation to gift-giving and characters who wore the garment. The Hebrew Bible uses it as a colour explicitly associated with YHWH.

[15] Marvin H. Pope, *Song of Songs*, AB 7C (Garden City, NY: Doubleday, 1977), 630.

3.1. History of "Sea-Purple"

"Sea-purple" was a colour-fast dye widely used from 2000 BCE in Ugarit, Hattusas, Babylon and Assyria.[16] This dye was extracted from different species of the *murex* sea snail. Local fishermen across the Mediterranean caught thousands of *murex* snails from the shallow waters.[17] The chemical changes wrought by exposure to sunlight, plus factors such as atmospheric conditions, the quality of the vat the fabric soaked in and the type of *murex* snail used[18] produced various shades of purple, ranging in hue from pink, brown, red, blue, and black.[19] The colours produced by different types of *murex* shells also had a vivid shine, a sheer iridescence and were permanent and resistant – all of which were important qualities for the garments to stay clean and colourful. The genuine "sea-purple" dye was turned into garments worn by political leaders and royalty, and even adorned deities and statues across the ancient world.[20]

Questions arise as to the location of dye production and how "sea-purple" came to be such a symbolic material across different cultures. The general theory is "sea-purple" was

[16] Reinhold, *History*, 12–3.
[17] Several marine shellfish, particularly from the *Muricidae* and *Thaisidae* families, were obtained from the Mediterranean shoreline; the *Bolinus brandaris* (*murex branderis*), the *Hexaplex trunculus* (*murex trunculus*) and the *Stramonita haemastoma* (*Thais haemastoma*) were the most highly prized.
[18] *Murex trunculus* produced a bluish tint whereas *murex brandaris* more reddish; Grand-Clément, "Gold and Purple," 124. Pliny (*Nat.* 9.125–38) provides the oldest and most detailed account of *murex* dyeing; cf. Bradley, *Colour*, 193–6; Aristotle, *Hist. an.* 5.14.22–5; Vitruvius, *De arch.* 7.13.1–3; Benedict Lowe, "The Industrial Exploitation of Murex: Purple Dye Production in the Western Mediterranean," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 46–8.
[19] Matthew A. James, et al. "High Prestige Royal Purple Dyed Textiles from the Bronze Age Royal Tomb at Qatna, Syria," *Antiquity* 83 (2009): 1109–18; W.H. van Soldt, "Fabrics and Dyes at Ugarit," *UF* 22 (1990): 321–57; Brendan Burke, "Purple and Aegean Textile Trade in the Early Second Millennium B.C.," in *Meletemata: Studies in Aegean Archaeology Presented to Malcolm H. Wiener as He Enters His 65th Year*, eds. Philip Betancourt, Vassos Karageorghis, Robert Laffineur and Wolf-Dietrich Niemeier, Aegaeum 20 (Liege: Université de Liège, 1999), 75–82 (77).
[20] On the high costs of purple dye, see L. Quillien, "The Economic Role of Coloured Textiles in Babylonia (1st Millennium BCE)," in Thavapalan and Warburton, *The Value of Colour*, 201–30 (217); Jane Bridgeman, "Purple Dye in Late Antiquity and Byzantium," in Spanier, *The Royal Purple*, 159–65; Ziderman, "Seashells," 99; Charlene Elliott, "Purple Pasts: Color Codification in the Ancient World," *Law and Social Inquiry* 33 (2008): 173–94 (177). Nunn also argued PURPLE also had a protective function, Astrid Nunn, *Die Wandmalerei und der glasierte Wandschmuck im Alten Orient* (Leiden: Brill, 1988), 239–41.

manufactured in Phoenicia, situated along the Levantine coastal shore.[21] Some scholars have argued for a connection between the etymology of "Phoenician" and the Greek φοινιξ ("red, purple pigment"); Phoenicia is the country of purple cloth. The origin of "Phoenician" was also thought to have a connection with the hero Phoenix. After Hercules discovered "sea-purple" when an animal ate a seashell staining his mouth red/purple, Hercules told Phoenix who adorned himself in a "sea-purple" robe and declared it his national colour.[22] Archaeological findings reinforce the idea that purple dye originated in Phoenicia, as the Phoenician cities Tyre and Sidon were large production centres for sea-purple.[23] The coastal cities of Phoenicia became renowned for their trade and commerce both by land and sea, with purple their biggest export.[24]

---

[21] "Es steht außer Zweifel, daß die Israeliten ihren Purpur aus Phöeizien importierten," Gradwohl, *Die Farben*, 67. Cf. Amélie Kuhrt, *Ancient Near East c.3000–330BC: Volume 2* (London: Routledge, 1995), 403; Maria Giulia Amadasi Guzzo, "The Language," in *The Oxford Handbook of the Phoenician and Punic Mediterranean*, eds. Carolina López-Ruiz and Brian R. Doak (New York: Oxford University Press, 2019), 199–222 (199). Contra Zwickel who provided evidence of purple dyeing in Palestine. In Tell Keisan (11thC BCE) and in Tel Shikmona (9thC BCE) vessels were found with a red colour inside, likely to be used for staining with purple snails; Wolfgang Zwickel, "Färben in der Antike," in *Edelsteine in der Bibel*, ed. Wolfgang Zwickel (Mainz: von Zabern, 2002), 41–4 (41). Other archaeological evidence shows purple dyeing dates back to 17thC BCE Crete, and the first written records of purple dyeing were from 15thC BCE Nuzi, Mesopotamia; Ziderman, "Seashells," 98–101; Reinhold, *History*, 9; Gradwohl, *Die Farben*, 68; Astrid Nunn, "Colourful Garments of Mesopotamian Stone Statues," in Goldman, *Essays in Global Color History*, 31–9 (36); L. Karali and F. Megaloudi, "Purple Dyes in the Environment and History of the Aegean: A Short Review," in *Vestidos, Textiles y Tintes: Estudies sobre la producción de bienes de consume en la Antigüedad*, eds. Carmen Alfaro and Lilian Karali (Valencia: Universitat de València, 2008), 181–4 (181). Herzog ("Hebrew," 40) suggested ארגמן and תכלת originated from India, from Sanskrit *ragamen*/*ragavan* and *kala*. Indians were ranked high as dyers and the Phoenicians borrowed the terms *and* the dyeing process when they were living on the Persian Gulf, prior to their immigration into Syria. However, it is possible the Phoenicians only borrowed the name not the materials, simply adapting to the Mediterranean sea snails rather than those used in India.

[22] Maria Eugenia Aubet, *The Phoenicians and the West: Politics, Colonies and Trade*, 2nd ed. (Cambridge: Cambridge University Press, 2003), 7; Herzog, "Hebrew," 36.

[23] Shiyanthi Thavapalan, "Purple Fabrics and Garments in Akkadian Documents," *JANEH* 3 (2018): 163–90 (180). Another Phoenician city-state, Arvad, was an important source of *takiltu* and *argamannu* wool for the Assyrians, with the commodities being moved along independent trade networks operated by Arab merchants; cf. L. Quillien, "Le manteau pourpre de Nabuchodonosor. Étude des circulations économiques de la laine pourpre en Mésopotamie au ler millénaire avant J.-C.," *Hypothèses* 18 (2015): 105–18 (110–3); Mireille Bélis, "The Use of Purple in Cooking, Medicine, and Magic. An Example of Interference by the Imaginary in Rational Discourse," in *From Myth to Reason? Studies in the Development of Greek Thought*, ed. Richard Buxton (Oxford: Oxford University Press, 1998), 295–316.

[24] Before the Assyrian conquest there is evidence of maritime trading and on land to the Levant, eastwards towards Mesopotamia, and then south to Arabia and the Egyptian coast. The *pax Assyriaca* meant independent small states and traditional markets suffered, but, at the same time opened more boarders providing the opportunity for their products and commodities to travel further afield increasing demand, see Gunnar Lehmann, "The Levant," in López-Ruiz and Doak, *The Oxford Handbook of the Phoenician and Punic Mediterranean*, 465–80.

From a linguistic point of view, both ארגמן and תכלת as purple point to origins in Phoenicia. For example, ארגמן has multiple cognates but no clear Semitic etymology; the final double consonant of the Akkadian cognate *argamannu* suggests a foreign loanword.[25] The Biblical Aramaic equivalent ארגון also suggests a foreign word.[26] The earliest known occurrence of the word ארגמן is found in Ugaritic, where *'argmn* means "tribute"; this is also the case for *argamman* (Hittite) and *arkamman* (Luwian).[27] Phoenician literature hardly exists,[28] but ארגמן/ ארגון still point directly towards this region. Geographically speaking, ארגמן/ארגון point towards the Anatolia region where these western languages used tribute and gift exchanges to facilitate the movement of purple dyed materials. Moving down the coastline, the name of the purple material given as tribute became synonymous with the term itself.[29] All of this suggests that Phoenicia is significant in the early stages of "sea-purple" production and distribution across the ancient Near East.

[25] Akkadian, *argamannu*; Ugaritic, *a/irgmn*; Hittite, *ark/gamman*; Aramaic, *'argəwān*; Luwiyan, *arkamman*; Egyptian, *zargawan*; Syriac, *'argwān* and *'argwānāyā*; and Arabic, *'urjuwān* and *'urguwānī*; Benjamin J. Noonan, *Non-Semitic Loanwords in the Hebrew Bible*, LSAWS 14 (University Park, PA: Eisenbrauns, 2019), 65. Rabin also pointed to the Persian plant *argawān* which refers to a variety of purple and red flowers that originated from Persia, Chaim Rabin, "Hittite Words in Hebrew," *Orientalia* 32 (1963): 113–39 (116–18).
[26] Maximilian Ellenbogen, *Foreign Words in the Old Testament: Their Origin and Etymology* (London: Luzac & Co., 1962), 38.
[27] Lloyd B. Jensen, "Royal Purple of Tyre," *JNES* 22 (1963): 104–18 (105); Reinhold, *History*, 10–11; Brenner, *Colour Terms*, 147; cf. Landsberger, "Über Farben," 158–9; Stephen A. Kaufman, *The Akkadian Influences on Aramaic* (Chicago, IL: University of Chicago Press, 1974), 35–6.
[28] Herzog, "Hebrew," 40; Guzzo, "The Language," 200–1.
[29] Exactly when and where "tribute" changed to "purple" cannot be determined. This possibly happened at Ugarit as this was the major port within the Hittite realm where both meanings of "tribute" and "purple" are attested in the texts discovered there; Gary A. Rendsburg, "A Further Note on Purple Dyeing," *BA* 54 (1991): 121; cf. Itamar Singer, "Purple-Dyers at Lazpa," in *Anatolian Interfaces: Hittites, Greeks and Their Neighbours*, eds. Billy J. Collins, Mary R. Bachvarova, and Ian C. Rutherford (Oxford: Oxbow Books, 2008), 21–43 (25).

3.2. Greek "Sea-Purple"

> Suppose that we were painting a statue, and someone came up to us and said, "Why do you not put the most beautiful colours on the most beautiful parts of the body? The eyes ought to be purple, but you have made them black."
>
> Plato, *The Republic* 4:420

The classical Greek philosopher Plato captures the admiration of "sea-purple" during his time, pointing to the colour as a symbol of beauty and status.[30] The idea that purple was the "correct" colour to use ahead of black achieves mimesis. It reinforces the general of PURPLE in ancient Greece and ancient Rome: PURPLE was a colour-fast dye, with physical, economic and political properties and associations. This was also conveyed throughout Greek art and literature.[31] Generally, PURPLE includes many Greek lexemes such as πορφυρεος, φοινικεος, αλουργος, υακινθινος, and αμεθυστος.[32] There were cheaper and similar (counterfeit) purples,[33] but this section analyses the uses of πορφυρεος and πορφυρα ("sea-purple") in Homeric epic and Herodotus' *Histories*, both of which stress the materiality of "sea-purple" and use it as a central reference to broader economic and political themes. Additionally, the difference in writing style illustrates that "sea-purple" was used to describe objects, materials and phenomena far from its "sea-purple" origins.

[30] Plato uses οστερεον ("oyster") as "sea-purple" here, another *murex* pigment.
[31] See James, *Light and Colour*; cf. Vincent J. Bruno, *Form and Colour in Greek Painting* (New York: W.W. Norton, 1977); Susan Woodford, *An Introduction to Greek Art: Sculpture and Vase Painting in the Archaic and Classical Periods* (New York: Bloomsbury Academic, 2015).
[32] For a description of each, see Cecilie Brøns, "Sacred Colours: Purple Textiles in Greek Sanctuaries in the Second Half of the 1st Millennium BC," in *Treasures from the Sea: Sea-silk and Purple Dye in Antiquity,* ed. Hedvig Landenius Enegren and Franceso Meo (Oxford: Oxbow Books, 2017), 109–17 (109–10). Like οστερεον, αλουργος is also a "sea-purple" dye but does not feature in Homeric epic nor Herodotus' *Histories*; cf. Cecilie Brøns and Kerstin Droß-Krüpe, "The Colour Purple? Reconsidering the Greek Word halourgos (αλουργος) and its Relation to Ancient Textiles," *Textile History* 49 (2018): 22–43.
[33] Stulz, *Die Farbe Purpur*, 98.

3.2.1. Homer

I begin with Homer's approach to πορφυρεος in both the *Iliad* and *Odyssey*. *Table One/Four* demonstrated that Homer used πορφυρεος (and its related terms) 36 times predominantly as a garment, but also in relation to the καρδια ("heart"), πελαγος ("sea") θανατος ("death"), αιμα ("blood"), νεφελη ("a cloud") and ιρις ("a rainbow").

3.2.1.1. "Sea-Purple" Dye as a Garment

Homer's multiple references to "sea-purple" garments divide into two sub-categories: 1) weaving of πορφυρεος yarn that would lead to a "sea-purple" garment; 2) πορφυρεος cloaks worn upon the person. With the former, the *Iliad* describes women spinning and weaving "sea-purple" dyed yarn into "double-width sea-purple cloths" to create a beautiful and majestic garment (*Il.* 3.126; 22.441).[34] More specifically, Helen was found by a disguised Iris spinning in the palace and then Andromache was also in the palace weaving a "sea-purple" cloth with multi-coloured flowers. Both women are significant characters within the *Iliad*. Helen (daughter of Leda and Zeus/Tyndareus, sister of Clytemnestra, wife of Menelaus) was taken by Paris, a Trojan prince, to Troy, which instigated the Trojan war. Achilles kills the father and brothers of Andromache (daughter of Eetion, king of the Cilician Thebes, wife of Hector), and after Hector died, she became the concubine of Achilles' son Neoptolemus and bore him three sons. These are the only two named women in the *Iliad*, which itself indicates their significances and their skills in spinning the prestigious "sea-purple" yarn, exemplifying their high social status.[35] "Sea-purple" tells the reader about the skills of the two women and also their levels of prestige in interacting with the costly material.

---

[34] Grand-Clément, "Histoire," 130.

[35] Brøns ("Sacred," 114) takes this occurrence of "sea-purple" alongside a female character as a comparison to the idea of purple as a cultic connotation in relation to female deities; *idem*., *Gods and Garments: Textiles in Greek Sanctuaries from the 7th to the 1st Centuries BC.* (Oxford: Oxbow, 2016). Cf. Latin poet Propertius 1.3.41, among others. On spinning and (female) social status, see Ionna Papadopoulou-Belmehdi, "Greek Weaving or the Feminine Antithesis," *Diogenes* 167 (1994): 39–56; and Lisa Pace Vetter, *'Women's Work' as Political Art:*

The second sub-category concerns those that wear πορφυρεος dyed cloaks upon the body. This is done only by characters of the highest social status.[36] When Hector dies at the end of the *Iliad*, his ashes are wrapped in a golden urn and πορφυρεοις πεπλοισι καλυψαντες μαλακοισιν ("covered with a soft sea-purple cloth") before they are buried.[37] In the *Iliad* (8.220–21), Agamemnon carries his "sea-purple" cloak in his hand: βη δ᾽ιεναι παρα τε κλισιας και νηας Ἀχαιων **πορφυρεον** μεγα φᾶρος εχων εν χειρι παχειη ("So he set out to go along the huts and ships of the Achaeans, holding his great **sea-purple** cloak in his stout hand").[38] Telemachus also wears πορφυρεος (*Od.* 4.115, 154). However, in the *Odyssey*, πορφυρεος is most frequently associated with hero, Odysseus. He draws the "sea-purple" dyed cloak over his face to hide his tears from the Phaeacians (*Od.* 8.84)[39] and, when leaving for Troy, is given a "sea-purple" cloak by Penelope, which becomes an identity marker when Odysseus returns disguised as a beggar and begins speaking to his wife again (*Od.* 19.225, 242). These are just some examples of when Homer describes significant people like Agamemnon, Telemachus or Odysseus wearing a "sea-purple" dyed cloak; throughout, πορφυρεος is associated with power and social status.

These two sub-categories demonstrate that, for Homer, πορφυρεος refers to a person's prestige; it is used in relation to key characters, both male and female, within the epic. In particular, it

Weaving and Dialectical Politics in Homer, Aristophanes, and Plato (Lanham: Rowman and Littlefield, 2005). Weaving clearly has a literary function in these texts: Blondell argued the pervasive image of Helen weaving "red" cloth from Greco-Roman literature reflects Helen's self-awareness in causing the destruction wrought by the Trojan War, see Ruby Blondell, *Helen of Troy: Beauty, Myth, Devastation* (Oxford: Oxford University Press, 2013), 32, 51, 54, 68, 73, 75–8.

[36] Stulz, *Die Farbe Purpur*, 114.

[37] Homer also describes other characters who wore a φοινικεος ("red, purple") cloak: Nestor (*Il.* 10.133), Thoas (*Od.* 14.500), and Telemachus (*Od.* 21.118). Only certain heroes wore πορφυρεος; Reinhold, *History*, 16; Elliott, "Purple Pasts," 179.

[38] Unless otherwise stated, translations are my own.

[39] Grand-Clément proposed the idea of a link between the verbal πορφυρεος (πορφυρειν) – which can be translated as "disturbed", "troubled", "heaving", "surging" – and contexts of hero's in trouble. This suggests "sea-purple" also shows inner turmoil of the characters, Grand-Clément, "Histoire," 130; *idem., La fabrique*, 67.

emphasises the significance of purple as a highly-charged accessory to the body. Homer dwells on the importance of skilled workers weaving the material, specifically hands of prominent women. Homer emphasises the heroic nature of a person when a male character handles a "sea-purple" garment.[40]

3.2.1.2. Troubling "Sea-Purple"

Homer expands PURPLE further by using πορφυρεος to describe καρδια ("heart"), πελαγος ("sea") and στειρη ("wave"), as well as the dyed cloth. Homer uses πορφυρεος to describe the sea: twice in the *Iliad*, and three times in the *Odyssey* (*Il.* 14.16; 16.391; *Od.* 2.428; 11.243; 13.85).[41] Previous scholars have assumed a cultural meaning to Homer's infamous οινοψ ποντος,[42] but the question remains as to what Homer meant when he described πορφυρεος water. I want to draw attention to two particular examples that coincide with descriptions of chaotic and distressing situations, which relates to the verbal form πορφυρω ("heaving", "troubling"). Firstly, Nestor steps out of a tent to see the Achaeans are losing to Hector's forces (*Il.* 14.16); πορφυρεος sea reflects this loss. Another example sees Agamemnon send Chryses back to her father on a ship under the supervision of Odysseus. After making sacrifices to the relevant gods, they set sail for the Achaean camp.

> ημος δ᾽ ηριγενεια φανη **ροδοδακτυλος** Ἠως, και τοτ᾽ επειτ᾽ αναγοντο μετα στρατον ευρυν Ἀχαιων. τοιτσιν δ᾽ ικμενον ουρον ιει εκαεργος Ἀπολλων. οι δ᾽ ιστον στησαντ᾽ ανα θ᾽ ιστια **λευκα** πετασσαν, εν δ᾽ ανεμος πρησεν μεσον ιστιον, αμφι δε

[40] This gender dynamic is interesting. It contrasts the transaction described by Lee who argued bronze mirrors crafted by *men* for *female* adornment and prestige, Mireille M. Lee, "The Gendered Economics of Greek Mirrors: Reflections on Reciprocity and Feminine Agency," *Arethusa* 50 (2017): 143–68.

[41] The compound αλιπορφυρος, a portmanteau of αλς ("sea") and πορφυρα ("purple"), is used in connection to spinning/weaving "sea-purple" yarn (*Od.* 6.53, 306; 13.108). This suggests a direct and common relationship between the sea and "sea-purple" dyed yarn, but also asks the question as to why the distinction needs to be made between αλιπορφυρος and πορφυρεος; cf. Ps 104:6.

[42] See Chapter Two fn.27 above. The occurrence of στειρη πορφυρεον ("purple wave") (*Od.* 2.428) comes directly after the description of οινοπα ποντον ("wine-dark sea") (*Od.* 2.421) suggesting πορφυρεος carries the same visual aesthetic of the sea, as well as cultural connotations of being a troubled and dangerous sea.

> κυμα στειρη **πορφυρεον** μεγαλ᾽ ιαχε νηος ιουσης. η δ᾽ εθεεν κατα κυμα διαπρησζουσα κελευθον.
>
> …as soon as the **rosy-fingered** dawn appeared, then they set sail for the wide camp of the Achaeans. And Apollo, who works from afar, sent them a favouring wind, and they raised the mast and spread the **white** sail. The wind filled the belly of the sail and the **sea-purple** wave shouted at the stern of the ship as she went and sped on her way.
>
> *Il.* 1.477–483

This passage is interesting because of the multiple colour terms: "rosy-fingered dawn", "white sail", "sea-purple wave". The troublesome and dangerous connotations attached to πορφυρεος directly contrasts purity and sacrifice behind the λευκος sail. The sacrifices work, once the "rosy-fingered dawn" appears. Apollo grants them fast passage by blowing a wind into the "white" sail, which means they can glide swiftly through the troubled, "sea-purple" waters. This passage is also interesting as Homer describes the ship in relation to body parts, such as the "belly".[43]

The body is central to Homer's use of "sea-purple". When talking about the καρδια ("heart"), there seems to be an overlap with πορφυρω as well as πορφυρεος ("sea-purple"). πορφυρω modifies the heart four times (*Il.* 21.551; *Od.* 4.427, 572; 10.309); these are translated as "darkly ponders", suggesting an internal battle of some kind. Homer thought "sea-purple" should also represent and reflect troubled thoughts. For example, *Od.* 10.309 says, ἤια, πολλα δε μοι κραδιη **πορφυρε** κιοντι ("as I went, my heart **purply** pondered many things"). Here, the beautiful witch-goddess Circe turned people into pigs. Eurylochus sees this and runs back to the ship to warn Odysseus, who arms his men. On the way back to Circe's house, Odysseus is visited by

[43] Cf. 6.1.

the god Hermes, who gives him advice and instructions on taking a magical herb, which when eaten stops him from turning into an animal. However, when Odysseus stands in front of Circe's house, about to go in, he thinks dark and troubled thoughts. Odysseus is a key character, already associated with "sea-purple" garments. πορφυρεος connects to πορφυρω reflecting Odysseus' thrashing thoughts. Both of Homer's descriptions regarding a "sea-purple" heart and a "sea-purple" sea push the boundaries of PURPLE to reflect troublesome times, danger and current battles.

3.2.1.3. "Sea-Purple" Death and Blood

Taking into account the relationship "sea-purple" has with chaotic and distressing situations, it is not surprising that Homer uses πορφυρεος to modify αιμα ("blood").[44] πορφυρεος αιμα is a good description of the colour as one sees it. It suggests a deep red, purple colour of coagulated and congealed blood, reflecting the danger that surrounds death.[45] *Iliad* 17.360–1 says, ὥς Αιας επετελλε πελωριος, αιματι δε χθων δευετο **πορφυρεω** ("Thus, mighty Aias charged them, and the earth grew wet with **sea-purple** blood"). In Book 16, Achilles's friend Patroclus dies; this part of Book 17 continues the story, as a fight breaks out over to whom Patroclus's armour belonged. Aias the Greater defends Patroclus's corpse, fighting off all those who came near and, in doing so, spilt a lot of blood. The motif of the earth growing wet with blood accentuates the significance of Patroclus's death and the emotional intensity of the battle. Despite the large number of deaths in the *Iliad*, αιμα ("blood") is only used in relation to twelve deaths.[46] πορφυρεος reinforces the troubling nature of Patroclus' death as well as the richness and

[44] φοινικοεις is also used in reference to blood (*Il.* 23.716); cf. Pliny, *Nat.* 9.62.135, "Its highest glory consists in the colour of congealed blood, blackish at first glance but gleaming when held up to the light." Cf. Andreas Fountoulakis, "The Colours of Desire and Death: Colour Terms in Bion's *Epitaph on Adonis*," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 110–6.
[45] Irwin, *Colour*, 28; Grand-Clément, "Gold and Purple," 124–5; cf. Lyons, "The Vocabulary of Color," 68, 70.
[46] Tamara Neal, "Blood and Hunger in the *Iliad*," *CP* 101 (2006): 15–33 (15). This enjambment is more significant than others *because* Homer juxtaposes πορφυρα with αιμα; Mark W. Edwards, *The Iliad: A Commentary: Volume V: Books 17–20* (Cambridge: Cambridge University Press, 1991), 96–7.

importance of his blood as a symbol of preciousness and life. Of these twelve deaths, πορφυρεος occurs three times in relation to θανατος ("death") itself, as well as blood. For example, *Il.* 5.83–4 says, αιματοεσσα δε χειρ πεδιω πεσε. τον δε κατ᾽οσσε ελλαβε **πορφυρεος** θανατος και μοιρα κραταιη ("So the arm all bloody fell to the ground; and down over his eyes came a **purple** death and a mighty fate"). Similarly, *Il.* 16.333–4 and 20.475–6 both read, παν δ᾽ υπεθερμανθη ξιφος αιματι. τον δε κατ᾽οσσε ελλαβε **πορφυρεος** θανατος και μοιρα κραταιη ("And all the blade grew warm with his blood, and down over his eyes came a **purple** death and a mighty fate"). Here the poetic "πορφυρεος θανατος" (literally "sea-purple death") not only parallels blood,[47] but also relates to the eyes. As well as a troubling situation, the image of a "sea-purple" death covering the victim's eyes is almost one of peace and beauty, showing the compassion Homer had for those slain.[48] As mentioned above, πορφυρεος is central to elements of wealth, power and status; those that wore cloaks and garments of the "sea-purple" dye had these associations. It is therefore striking that all three of these victims who experience πορφυρεος θανατος, Hypsenor (*Il.* 5.83), Cleobulus (*Il.* 16.334) and Echeclus (*Il.* 20.476), were killed by people ranked higher than them. Hypsenor was killed by Euryplyus, who was a leader of the Ormenion men to Troy; Cleobulus was killed by Ajax the Lesser, a leader of the Locrian contingent at Troy; and Echeclus was killed by Achilles, one of the greatest Greek heroes that fought at Troy. Euryplyus, Ajax the Lesser and Achilles all had elements of power and were ranked highly in the social hierarchy. πορφυρεος θανατος becomes a mark these important people left on their victims. Thus, there is an interesting and inherent contrast between the colour of blood, and the high status and catastrophe connotations, of which purple is central to. Purple is prestigious and luxurious, but with it comes danger and tragedy.

[47] On this, and μελας θανατος ("black death") another colour relating to death and blood, see Grand-Clément, "Histoire," 130–2.
[48] The poet "goes to enormous lengths to individualise the fates of even the most minor of heroes." Richard Buxton, "Similes and Other Likenesses," in Fowler, *The Cambridge Companion to Homer*, 139–55 (151).

3.2.1.4. "Sea-Purple" Rainbows and Clouds

Finally, Homer's use of πορφυρεος is interesting in relation to ιρις ("a rainbow") and νεφελη ("a cloud"). These occurrences appear within a couple of verses of each other in Book 17, where Homer remains focussed on the war over Patroclus's body. *Iliad* 17.547 reads, ηυτε **πορφυρεην** ιριν θνρτοισι τανυσση ("as Zeus stretches a **sea-purple** rainbow for the mortals"), and *Il.* 17.551 says, ως ἠ **πορφυρεη** νεφελη πυκασασα ἓ αυτὴν ("so Athena wrapped herself in a **sea-purple** cloud"). The battle intensifies as Zeus sends Iris down as a personified rainbow to warn men of divine intervention (cf. *Il.* 11.25–27) and sends Athena down in a cloud to encourage and rally the Greeks. Both Athena and Iris were seen as a link between the gods and mankind, frequently appearing as messengers in contexts of war and tragedy. As Athena, the daughter of Zeus, is wrapped in a "sea-purple" cloud, this is likened to physically being adorned with the "sea-purple" garments and all of the royal and luxuriousness associated with it.

A "sea-purple rainbow", however, poses a problem to scholars as it is very unlike the modern conceptions of rainbows. James has studied rainbows in Byzantine art, noting two separate categories: the "naturalistic" and "non-naturalistic." The latter presented a rainbow as a single or double band of one basic colour term in an arc shape.[49] James notes that the "unnaturalistic" rainbow is used to emphasise the glory of deities and gods acting as an arc of divine light.[50] which, in this case, is πορφυρεος.[51] Grand-Clément emphasises the divine associations of πορφυρεος, proposing that the ancient understanding of "sea-purple" credited it with possessing

[49] James, *Light and Colour*, 105–9; *idem*., "Colour and the Byzantine Rainbow," *Byzantine and Modern Greek Studies* 15 (1991): 66–95; cf. Irwin*, Colour*, 10 fn.19.
[50] James, *Light and Colour*, 99; *idem*., "Colour," 84–7; cf. Gage, *Color*, 93.
[51] In Latin literature, a *purpureus arcus* ("purple rainbow") was not common in Latin literature, only Propertius used it. Edgeworth ("Does "*Purpureus*" Mean "Bright"?," 289) has noted the interpretation of Propertius' *purpureus arcus* echoed this verse of Homer's; cf. James, "Colour," 81. Bradley (*Colour*, 49) proposed the idea of poetic metaphor. This is because *purpura* was a prestigious material, meaning that *purpureus arcus* were "expressions of highly skilled poetic embroidery" denoting the heterogeneous qualities.

special powers. This is because during the dyeing process, the dyeing agent is a colourless liquid extracted from the *murex* shell; only by exposure to sunlight and air does it take on a violet hue. This metamorphosis meant people believed "sea-purple" could encapsulate all colours, just like a modern rainbow.[52] Both approaches suggest that the significance of πορφυρεος as a shimmering material creates poetic ekphrasis with a divine ιριν.

Overall, Homer uses πορφυρεος to convey two different cultural associations. Firstly, it was considered an honour to weave it and an honour to wear it. Homer used important female characters to spin the material and portrayed only male heroes adorned in "sea-purple". These occurrences centre around the body demonstrating the idea that Homer recognised the wealth and prestige of the material. Secondly, Homer conveys a dark side to πορφυρεος. The chaotic, dangerous and surging nature of the context is reflected in descriptions of a πορφυρεος στειρη, καρδια, θανατος, αιμα, νεφελη and ιρις. The troubled heart describes Odysseus' troubled thoughts as he stands in front of Circe's house; the tragic event of Patroclus's death and bloodshed is self-explanatory; and, in the final two instances of the rainbow and the cloud, Patroclus is dead and the battle rages around his corpse. The rainbow is a portent and Athena appearing in a cloud reinforces the disturbing nature of the theophany and situation. Homer conveys πορφυρεος from a divine point of view; the divine sends down omens in the shape of πορφυρεος rainbows and clouds, controls the chaotic πορφυρεος sea, and takes away life (πορφυρεος death and blood).

3.2.2. Herodotus

Herodotus' travels are interlinked with occurrences of "sea-purple". This suggests his understanding of PURPLE was influenced by different cultures. *Table Two* demonstrates that

[52] Aristotle, *Hist. an.*, 5.14.22–5; Grand-Clément, "Gold and Purple," 125–6.

Herodotus uses colour sparsely as πορφυρεος/πορφυρα only occur six times in the *Histories*. Like Homer, Herodotus predominantly uses the "sea-purple" dye to describe garments and significant characters wearing them. He also uses πορφυρεος to describe "salt." This section will look at these six occurrences of πορφυρεος in the *Histories*.

3.2.2.1. "Sea-Purple" Dye as a Garment

Firstly, Herodotus uses πορφυρεος in relation to garments and fabrics. Herodotus describes the envoys of the Ionians and Aeolians arriving in Sparta where they chose a Phocaean called Pythennos to speak for all of them (1.152.1). Pythennos puts on a πορφυρεος cloak to try and attract the attention of the Spartans, alluding to the general associations of purple garments in antiquity, i.e., they are a symbol of power and status.

Book 3 introduces and describes Egypt. Herodotus depicts Cambyses' campaign against the Egyptians as the Persians cross the desert to destroy them. From here Cambyses plans his next conquests of Libya and Ethiopia. He sends spies (the "fish-eaters") who speak the Ethiopian language to Ethiopia to give them high value gifts, including a "sea-purple" cloak:

> επειτε δε τω Καμβυση εκ της Ἐλεφαντινης απικοντο οι Ἰχθυοφαγοι, επεμπε αυτους ες τους Αιθιοπας εντειλαμενος τα λεγειν χρην και δωραφεροντας **πορφυρεον** τε ειμα και **χρυσεον** στρεπτον περιαυχενιον καιψελια και μυρου αλαβαστρον και φοινικηιου οινου καδον. οι δε Αιθιοπες ουτοι, ες τους απεπεμπε ο Καμβυσης, λεγονται ειναι μεγιστοι καικαλλιστοι ανθρωπων παντων.
>
> When the Fish-eaters came to Cambyses from Elephantine, he sent them to Ethiopia, with instructions as to what they should say and carrying gifts including a **sea-purple** cloak and a twisted **gold** necklace and bracelets and an alabaster box

> of myrrh and a jar of palm wine. These Ethiopians, to whom Cambyses was sending the men, are said to be the tallest and most beautiful men in the world.
>
> *Hist.* 3.20.1

What is most interesting about this narrative is the Ethiopians' response to this act:

> Ταυτα δε ειπας και ανεις το τοξον παρεδωκε τοισι ηκουσι. λαβων δε τοειμα το **πορφυρεον** ειρωτα ο τι ειη και οκως πεποιημενον. ειποντων δετων Ἰχθυοφαγων αληθειην περι της **πορφυρης** και της βαφης, δολερους μεν τους ανθρωπους εφη ειναι, δολερα δε αυτων τα ειμα τα.
>
> Those were his words, and he unstrung the bow and handed it to the messengers. Then he took the **sea-purple** cloak and asked them what it was and how it was made. When the Fish-eaters told him the truth about the **sea-purple** and the dyeing process, the king said, "You are treacherous, and so are your garments."
>
> *Hist.* 3.22.1

This reaction suggests that being able to distinguish between genuine or fake "sea-purple" reveals the true motive behind the gift: that Cambyses was spying on them to gain monarchic power of the Ethiopians. It is interesting that the Ethiopian ruler picked out the "sea-purple" cloak among many of the other materials, implying he knew how to test the "fish-eaters". The outcome was that whatever the "fish-eaters" revealed to them offended the Ethiopians and exposed their secret mission. Herodotus uses the "sea-purple" cloak as the catalyst to Cambyses's failed mission.

Herodotus and the various communities he visited understood πορφυρεος cloaks as a symbol of booty, tribute and gift-giving. This is also seen at the beginning of the *Histories*, where Herodotus describes how the war between the Greeks and the Persians began. He begins with Croesus, king of Lydia, who was a powerful king famed for making the Greeks who lived in

Ionia his subjects. In 1.50.1, Croesus is worried about the increasing power of his neighbours and decides to attack them. Before doing so, he gives a series of gifts to the oracle of Delphi:

> Μετα δε ταυτα θυσιησι μεγαλησι τον εν Δελφοισι θεον ιλασκετο. κτηνεατε γαρ τα θυσιμα παντα τρισχιλια εθυσε, κλινας τε **επιχρυσους καιεπαργυρους** και φιαλας **χρυσεας** και ειματα **πορφυρεα** και κιθωνας, νησας πυρὴν μεγαλην, κατεκαιε, ελπιζων τον θεον μᾶλλον τι τουτοισι ανακτησεσθαι. Λυδοισι τε πᾶσι προειπε θυειν παντα τινα αυτων τουτῳ ο τι εχοι ἔλαστος.
>
> After that, he [Croesus] tried to win favour of the Delphian god with great sacrifices. Of all those fit for sacrifice, he offered up three thousand beasts of each kind, and couches overlaid with **gold** and **silver**, **golden** goblets, and **sea-purple** cloaks and tunics – he made a great heap of these and burnt them, hoping to win the favour of the god; he also commanded every Lydian should sacrifice to the god whatever they could.
>
> *Hist.* 1.50.1

Offering these gifts, again including a "sea-purple" cloak, meant divine protection from the god Apollo, who saved Croesus when the Spartans imprisoned him and placed him on a pyre. Strikingly, this passage states "three thousand" "sea-purple" cloaks are offered to Delphi, signalling the expense and the cost of the offering. "Sea-purple" dye is costly; it takes multiple grams of the shellfish to make an ounce of the dye. As the cloaks symbolise material wealth and status, presenting them to the gods marks an image of sacrifice. Croesus is willing to give up his rank and power in order to gain protection and survive. As in Homer, deities are involved in the narrative, suggesting Herodotus presented "sea-purple" cloaks as a divinely inspired and approved material. The "sea-purple" cloak was a tangible object favourable to the gods and a worthy offering.

3.2.2.2. "Sea-Purple" Salt

Herodotus later uses πορφυρεος to describe "salt". 4.185.3a says, ο δε ἅλς αυτοθι και **λευκος** και **πορφυρεος** τοειδος ὀρυσσεται ("the salt dug up there is both **white** and **sea-purple**"). At the end of Book 4, Herodotus digresses from the Persian campaign against the Greek town of Cyrenaica to tell his audience about a Libyan tribe living in a rainless country, who build huts of salt blocks.[53] πορφυρεος describes the salt used by the Libyan tribe to make the huts. Interestingly, like Homer and the ship, Herodotus too parallels πορφυρεος with λευκος ("white"). On a literal level, the salt quarried from the African rocks could have been a dark purple, almost black colour, and the residue on the precipices a white colour. Salts of πορφυρεος and λευκος implies there is a spectrum of salt from the light white on one end and the dark purple on the other. The cultural connotations of πορφυρεος suggest that this salt is not just dark but also valuable.[54] πορφυρεος salt in 4.185.3a is a visual aid that directly contrasts with the λευκος salt in the appearance and making of the Libyan huts, and also hints towards the value and prestige of the houses. πορφυρεος salt would be equivalent to "Himalayan salt" today: it is an unusual colour, from the Himalayas, and more valuable than ordinary table salt.

Compared to Homer, Herodotus predominantly uses "sea-purple" as a material rather than as a poetic metaphor. When characters wear the dyed material or give it as gifts and tribute, Herodotus evokes cultural connotations to convey the wealth and power of communities and people. Interestingly, Herodotus also uses it as a tangible object accepted by the gods as part of sacrifice, adding a divine element to the material. His use of "sea-purple" "salt" at first seems

[53] Herodotus also describes a *murex* fisherman called Corobius who travelled to Libya (4.151.2).
[54] In Latin literature, Valeriius Falccus' *Argonautica* describes *sale purpureo* ("purple salt") to which many scholars argue is a metonym for the sea (*Argonautica* 3.422); Edgeworth, "Does "*Purpureus*" Mean "Bright"?," 283; Irwin, *Colour*, 18–9 fn.31. Though coloured seas are evidenced in the *Histories*, this idea directly contrasts Herodotus emphasising the lack of water and moisture in Libya and the desert-like surroundings (4.185).

unusual, but as a contrast to "white" "salt", it represents the value and prestige of what they are building.

3.2.3. Summary

The classical perspective on "sea-purple" as reflected in Homer and Herodotus varies slightly because of the difference in their literary forms. Nevertheless, there are two commonalities: 1) "sea-purple" material symbolises wealth, power and social status; and 2) "sea-purple" is a divinely approved material. Both Homer and Herodotus used the πορφυρεος garment to adorn the natural body, acting as an unnatural skin. The heroes, kings and people with high social status were adorned in "sea-purple" or gave it as a gift reflecting their wealth and power. Gods also played a key part in Homer and Herodotus' understanding of "sea-purple": Homer depicted Zeus sending down Iris and Athena as a "sea-purple" rainbow and cloud; Herodotus described the material being offered as tribute to Delphi.

3.3. "Sea-Purple" in the Hebrew Bible

> And you shall make a curtain of תכלת and ארגמן and crimson yarns and fine twisted linen; you shall make them with cherubim skillfully worked into it.
>
> Exodus 26:31

The Hebrew Bible also uses the sea-purple dye (in this case ארגמן and תכלת) to connote wealth, power and social status. Though there are two "sea-purple" terms in ancient Greek (πορφυρεος and αλουργος), πορφυρεος is only used by Homer and Herodotus and thought to be the favoured term to denote the dye. However, in the Hebrew Bible, both ארגמן and תכלת are used together

or interchangeably to represent "sea-purple".[55] Exodus 26:31 is just one of the many examples of the words occurring together, as part of the formulaic phrase associated with the making of the Tabernacle: משזר **תכלת וארגמן ותולעת שני ושש** ("**blue-purple** and **red-purple** and **crimson** yarns and fine twisted **linen**").[56] This section will look at the use of both ארגמן and תכלת together in the law narratives, and separately in biblical poetry. It will show the associations the material phenomenon has with the body, both as a hair colour and as an adornment from garments. Similar to the classical authors' touching on the divine associations of "sea-purple", the biblical authors also relate the dye to the divine; it is repeatedly associated with YHWH and is central to larger theological themes. This section will look at how ארגמן (and its Biblical Aramaic equivalent ארגון) and תכלת are portrayed throughout the Hebrew Bible, focusing on its association with the body, wealth, power and social status, as well as the cultural understanding of its relationship to YHWH.

3.3.1. "Sea-Purple" as a Material

First, תכלת and ארגמן appear more often as a pair than separate terms; both terms denote a "sea-purple" dyed yarn normally distinguished as "blue-purple" and "red-purple". They are primarily found together during the instructions for the making of the Tabernacle, the High Priest's regalia and Solomon's Temple. To be included in such contexts instantly indicates "sea-

[55] It is important not to brush over English translations that determine תכלת as "blue." The cognates of תכלת (Aramaic: *teklā*/*tekltā*/*tkeltā*; Syriac, *teklətā*; and Akkadian, *taklitu*) all denote a purple thread or wool. There is strong evidence for תכלת to originate from the *murex* sea snail. The amount of dye one puts into the process and how much sunlight it is exposed to, makes the difference between ארגמן and תכלת. Ziderman argued תכלת was extracted from a different *murex* shell than ארגמן, more likely the *Phyllonotus trunculus*; I. Irving Ziderman, "Purple Dyeing in the Mediterranean World: Characterisation of the Biblical *Tekhelet*," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 40–5; Grand-Clément, "Gold and Purple," 124; cf. Peter R.S. Moorey, *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence* (Oxford: Oxford University Press 1994), 138; Otto Elsner and Ehud Spanier, "The Past, Present and Future of *Tekhelet*," in Spanier, *The Royal Purple*, 167–78 (168); Herzog, "Hebrew Porphyrology," 39–42; Zvi C. Koren, "The First Optimal All-murex All-Natural Purple Dyeing in the Eastern Mediterranean in a Millennium and a Half," *Dyes in History and Archaeology* 20 (2005): 136–149 (138).

[56] The references to תכלת and ארגמן as a collective phrase in Exodus are: 25:4; 26:1, 31, 36; 27:16; 28:5, 6, 8, 15, 33; 35:5–6, 23, 25, 35; 36:8, 35, 37; 38:18, 23; 39:1, 2, 3, 5, 8, 24, 29.

purple" is a symbol of importance. Furthermore, in both Exodus and 2 Chronicles, YHWH instructs Moses to attain "sea-purple" and Solomon uses "sea-purple" to build his temple in the "name of the Lord". The inclusion of both תכלת and ארגמן here means "sea-purple" is extremely prestigious and has high theological value; it also indicates a strong connection between colour and ritual.[57]

In 2 Chronicles 2, the relationship Solomon's Temple has with Tyre draws out the political value of "sea-purple". Solomon makes alliances with people who can work with expensive materials, showing his political power in attaining "sea-purple" and those skilled to work with it. He is aware that Tyre specialises in purple production, and that this relationship between the king of Tyre and himself is key to getting the best materials. When Solomon is in communication with Hiram, the king of Tyre, he refers to both ארגמן and ארגון:

> ועתה שׁלח־לי איש־חכם לעשׂות **בזהב ובכסף ובנחשׁת ובברזל ובארגון וכרמיל ותכלת** וידע לפתח פתוחים עם־החכמים אשׁר עמי ביהודה ובירושׁלם אשׁר הכין דויד אבי׃
>
> So now send me a man skilled to work in **gold**, **silver**, **bronze**, and **iron**, and in **red-purple**, **crimson** and **blue-purple** fabrics, trained also in engraving, to join the skilled workers who are with me in Judah and Jerusalem, whom my father David provided.
>
> 2 Chronicles 2:6
>
> ועתה שׁלחתי איש־חכם יותע בינה לחורם אבי׃ בן־אשׁה מן־בנות דן ואביו איש־צרי יודע לעשׂות **בזהב־ובכסף בנחשׁת בברזל** באבנים ובעצים **בארגמן בתכלת ובבוץ ובכרמיל** ולפתח כל־פתוח ולחשׁב כל־מחשׁבת אשׁר ינתן־לו עם־חכמיך וחכמי אדני דויד אביך׃
>
> I have dispatched Huram, a skilled artisan, endowed with understanding, the son of one of the Danite women, his father a Tyrian. He is trained to work in **gold**, **silver**,

[57] Brøns, "Sacred," 115.

> **bronze** and **iron**, stone and wood, and in **red-purple**, **blue-purple** and **fine linen** and **crimson**, and to do all sorts of engraving and execute any design that may be assigned him, with your artisans, the artisans of my lord, your father David.
>
> 2 Chronicles 2:12–13

The linguistic shift from ארגון in v.6 to ארגמן in v.13 can be explained by a deeper look at the context. When Solomon is talking to Hiram (the Aramaic-speaking king), Solomon uses the Aramaic form ארגון; when Hiram responds to Solomon he uses the Hebrew ארגמן.[58] The Chronicler emphasises the difference between Israel and foreign lands, but "sea-purple" is of value to both. This is reinforced by Huram's origins ("the son of one of the Danite women, his father a Tyrian"): his mother is an Israelite and his father a Tyrian.

Finally, I want to draw attention to isolated occurrences of תכלת and ארגמן. תכלת has a significant role in the making of the Tabernacle and the High Priest's garments. It is the coloured material of the robe of the ephod and the "loops" used for the curtains of the Tabernacle; it also binds the breastplate to the ephod and attaches the rosette of gold to the turban (Exod 26:4; 28:28, 31, 37; 36:11; 39:21, 22, 31). Similarly, the appearance of תכלת in Numbers 4:6, 7, 9, 11, 12 all describe Aaron and his sons preparing the holy items of the Tabernacle for travel. They must be wrapped and packaged in a certain way, most of which involve covering them up in תכלת (apart from the ashes of the altar, which are wrapped in ארגמן, v.13). תכלת appears in Numbers 15:38 as an instruction to all Israelites to have תכלת fringes or tassels on the corners of their garment. תכלת was the chosen material to try and get closer to YHWH.[59] In the instructions YHWH gives to Moses, Aaron and his sons, תכלת appears more theologically valued than ארגמן.

[58] Interestingly, the Talmud and other Rabbinic literature still use ארגמן *and* ארגון reinforcing the specific cultural idea that Solomon is talking to a foreigner; Marcus Jastrow, *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature: Volume I* (London: Luzac & Co., 1903), 115. On further thought, there is no Biblical Aramaic for תכלת suggesting the kings do not communicate in the opposite language.

[59] Rosanne Liebermann, "Feeling Blue: Israel, Assyria, and the History of a Color" (paper presented at the Colour & Identity in the Ancient World Online Talk, 2020).

It is the first member of the pair, which linguistically is important,[60] and is used more frequently for significant parts of the tradition. Overall, "sea-purple" as a material is chosen by YHWH to create a sacred space and plays a significant part in temple ritual and tradition.

3.3.2. Descriptions of Foreign "Sea-Purple"

Geographically speaking, "sea-purple" was an imported material to Israel/Judah. Perhaps unsurprisingly, when תכלת and ארגמן appear on their own, we find two instances where "sea-purple" modifies and describes foreign people and tribes not native to Israel. It is interesting that when תכלת has a profane function, it is always in a foreign context.[61] For instance, Ezekiel 23:5–6a reads, ותזן אהלה תחתי ותעגב על־מאהביה אל־אשׁור קרובים לבשׁי **תכלת** פחות וסגנים ("And Oholah played the harlot when she was mine; and she doted on her lovers, the Assyrian neighbours, who were clothed in **blue-purple**, governors and commanders…"). This describes the Assyrian officers wearing תכלת to symbolise their status.[62] In fact, Ezekiel is doing something interesting with תכלת here, implicitly contrasting its use of תכלת as a material men wore to get closer to YHWH (cf. Num 15).[63] Ezekiel reminds Judah of how they paid the Assyrians tribute with תכלת;[64] it is now being worn by the Assyrians.[65] Part of Ezekiel's rhetoric is to show how תכלת

[60] Brenner, *Colour Terms*, 146. Compared to the formulaic phrase in Exodus, the Chronicler swaps תכלת and ארגמן around, putting ארגמן first in the phrase. Brenner also expresses that this shift is likely a diachronic marker, rather than an emphasis on "red-purple" over "blue-purple".

[61] תכלת also appears in the Persian palace (Esth 1:6) and as a product in the Tyrian marketplace (Ezek 27).

[62] Hartley*, Semantics*, 188.

[63] Cf. 4.2.3. and Ezekiel's use of שׁשׁר ("vermilion").

[64] Rosanne Lierbermann, "'The Apparel Oft Proclaims the Man': Clothing and Identity in Ezekiel 23," *WO* 50 (2020): 1–16.

[65] In Ezekiel, YHWH recounts Israel's past history in three primary texts: chapters 16, 20 and 23. The opening of chapter 16 reads, מכרתיך ומלדתיך מארץ הכנעני אביך האמרי ואמך חתית ("Your birth was in land of the Canaanites; your father was an Amorite, and your mother a Hittite"). Block highlights how this contradicts the nation's tradition, which affirms Israel's origins in Mesopotamia and Egypt and highlights her distinction from the Canaanites. Daniel I. Block, "The God Ezekiel Creates," in *The God Ezekiel Creates*, eds. Paul M. Joyce and Dalit Rom-Shiloni, LHBOTS 607 (London: Bloomsbury T&T Clark, 2015), 162–92 (171–2). This affirms the overpowering nature of the Assyrians is solely of Israel's own doing.

went from being a material used to show closeness with YHWH to how it was taken to Babylon and drove a wedge between the people and YHWH.[66]

Similarly, in the case of ארגמן, Judges 8:26 says, מן־השַׂהרנים והנטפות ובגדי **הארגמן** שׁעל מלכי מדין ("…besides the ornaments and pendants, and the **red-purple** cloaks that were worn by the kings of Midian…"). Gideon has defeated and captured the kings of Midian. One of the benefits of war is access to booty: v.21 says Gideon killed the kings and took their ornaments from their camels' necks; v.26 implies that Gideon also took their ארגמן garments. After Israel asked Gideon to be their king and he refused, stating YHWH is the only king, Gideon asked his men to give them all of the gold they got from the Midianites. He makes an ephod out of gold; this parallels the episode of the golden calf in Exodus 32 as he fashions a sacred object. The ephod is a special garment worn by the High Priest, but here it is statuary and iconic.[67] The narrative does not say what Gideon did with the ארגמן garments, but foreign rulers were certainly wearing "sea-purple".

3.3.3. ארגמן in Song of Songs

Song of Songs uses ארגמן twice (3:10; 7:6) without תכלת. This is a change in literary form compared to the texts discussed above, as Song of Songs is a series of lyrical poems between two lovers. This change offers a new perspective to ארגמן and PURPLE in the Hebrew Bible.

[66] Cf. Ezek 23:12 which describes the Assyrian clad in מכלול ("choice clothing"). LXX Ezek 23:12 seems to understand the lexeme as a corruption of תכלת, implying another description of "sea-purple" clothing. Admittedly, this is perhaps an over interpretation as Ezekiel's Jewish contemporaries could have said that the Assyrian's purple garments were likely of Phoenician origin.

[67] Susan Niditch, *Judges: A Commentary*, OTL (Louisville, KY: Westminster John Knox, 2008), 105; cf. texts that use אפד ("ephod") not as an item of dress but an object of cultic worship (Judg 17:5; 18:14, 17, 20; 1 Sam 2:28; 14:3; 21:10; 23:6, 9, 10; 30:7, 8). The term can therefore describe cult images, perhaps ones which have been dressed in a particular garment (Jer 10:9), as well as the clothing worn by the High Priest. Oppenheim argued that אפד should be understood as an extension of the dressing of cult statues, with the dress of the priesthood emulating the divine garments; A. Leo Oppenheim, "Golden Garments of the Gods," *JNES* 8 (1949): 172–93.

Song of Songs 3:10 describes the "sea-purple" upholstered seat of a palanquin that the bride sits on to enter her wedding. This reinforces the opulence of "sea-purple". Song of Songs 7:6, however, pushes the boundaries of PURPLE further and says: ראשׁך עלׅיך **ככרמל** ודלת ראשׁך **כארגמן** מלך אסור ברהטים ("Your head crowns you like **Carmel**, and your hair of your head is like **red-purple**; a king is held captive in the tresses").[68] Here the male character resumes his description of the woman's beauty that he began in 6:4, beginning with her feet and moving up to her head (vv.2–7).[69] It creates a more encompassing, intimate visual description praising the female body.[70] 7:6 particularly focusses on the natural body. The portrayal of the female's hair is described as *like* "sea-purple" dye.[71] Elsewhere in the book, the author(s) say that her hair is like a flock of goats (4:1), implying a black or dark colour.[72] As "sea-purple" can range across the dark colour spectrum, the two descriptions complement each other in terms of aesthetics. The black/dark coloured hair may have an iridescent shine to it like "sea-purple" material, and ארגמן also reflects the luxurious and value of the purple dye onto the woman.[73]

[68] The Syriac, Aquila, Symmachus and the Vulgate joined מלך ("a king") with ארגמן to create "royal purple"; Pope, *Song of Songs*, 630.

[69] This is notably the opposite of other praise songs in Song of Songs as they move from the head downwards (4:1–5; 5:10–6; 6:4–10); cf. 6.1. Quick argued that the poem reverses the typical directionality of the *waṣf* to highlight the women's feet, a euphemism for genitalia (Gen 19:2; Deut 28:57; Judg 3:24; 19:21). The poem then moves to the thighs, also euphemistic of genitals (Gen 24:2; Num 5:22) and then to שׁרר which can be understood as the "navel". "This imagery is pornographic"; Laura Quick, "Art, Aesthetics and the Dynamics of Visuality in Ezekiel 23," *JHebS* (forthcoming), 12.

[70] Proverbs 31:22 also uses ארגמן without תכלת to describe another prominent female character. Verses 21–5 particularly portray the clothing she wore, where "sea-purple" juxtaposes שׁשׁ ("fine linen") and שׁני ("scarlet") (luxurious materials); Richard J. Clifford, *Proverbs*, OTL (Louisville, KY: Westminster John Knox, 1994), 276; Michael V. Fox, *Proverbs 10–31*, AB 18B (New Haven; London: Yale University Press, 2009), 896.

[71] Arguably, the simile is not poetic rather the hair is *actually* ארגמן; Roland E. Murphy, *The Song of Songs*, Hermeneia (Minneapolis, MN: Fortress, 1990), 186. There is adduced evidence from Ugaritic mythological texts for cosmetic use of *murex*, though "nothing is said about the hair"; Pope, *Song of Songs*, 629; cf. *KTU* 1.3.3.1; 1.3.4.45; 1.14.3.52–54.

[72] J. Cheryl Exum, *Song of Songs*, OTL (Louisville, KY: Westminster John Knox, 2005), 162. Duane Garrett and Paul R. House, *Song of Songs/Lamentations*, WBC 23B (Nashville, TN: Thomas Nelson, 2004), 188; Othmar Keel, *Song of Songs: A Continental Commentary* (Minneapolis, MN: Fortress, 1994), 142; Pope, *Song of Songs*, 629–30.

[73] Brian P. Gault, *Body as Landscape, Love As Intoxication: Conceptual Metaphors in the Song of Songs*, AIL 36 (Atlanta, GA: SBL Press 2019), 155.

Furthermore, כארגמן ("like purple") is parallel to ככרמל ("like Carmel") in the preceding line. Commentators struggle to decipher how the female's head relates to Mount Carmel, whether she stands tall and dignified,[74] or if the prominence of the mountain above everything else makes it more beautiful, just like the bride.[75] Othmar Keel states ארגמן is produced in the coastal plain around Mount Carmel, which was the home of purple cloth for cultic and royal monopoly.[76] Alternatively, כרמל is also "crimson" (2 Chr 2:6, 13; 3:14) creating a couplet of praise for the woman's crimson ראשׁ ("head") and her ארגמן hair. כרמל in 2 Chronicles is also adjacent to ארגמן replacing ותולעת שׁני ("crimson yarns") in the formulaic phrase.[77] So כרמל too, is a luxurious material and, when paired alongside ארגמן, depicts an opulent, valued, and highly-prized understanding of the female's hair. In addition to the common understanding that hair is a token of beauty,[78] the female's hair in this passage is exceptionally beautiful and luxurious.

3.3.4. Summary

In sum, ארגמן without תכלת occurs in the wisdom and poetical literature to describe the appearance of a female character in Song of Songs (cf. Prov 31). The bride has luxurious "sea-purple" hair and sits on a seat with "sea-purple" material to enter her own wedding. The use of ארגמן focuses around the natural bodily descriptions of hair, like Homer, and the garments and upholstery her body interacts with, like Herodotus. When תכלת appears on its own, it has a theological function; describing material involved in the careful wrapping and moving of the Tabernacle as well as providing the hoops and rings that bring certain elements of the

[74] Exum, *Song of Songs*, 236; Hunt, *Poetry*, 311–2; Athalya Brenner, "'Come Back, Come Back the Shulammite' (Song of Songs 7.1–10): A Parody of the *waṣf* Genre," in *On Humor and the Comic in the Hebrew Bible*, eds. Yehuda T. Radday and Athalya Brenner, BLS 23 (Sheffield: Sheffield Academic Press, 1990), 275–93 (267–9).
[75] Cf. Isa 35:2; Garrett and House, *Song of Songs/Lamentations*, 242.
[76] Keel, *Song of Songs*, 238.
[77] This shift from תולעת שׁני to כרמל reflects the late, post-exilic dating of the book and the influence of loanwords appearing in Biblical Hebrew because of the Persian Empire.
[78] Gault, *Body*, 148–57.

Tabernacle together. There are also instances when the two "sea-purples" appear in separate contexts and use the material as a symbol of wealth and power, but they are associated with foreigners: the Assyrian and the Kings of Midian wear תכלת and ארגמן, respectively. When the two "sea-purples" appear together, however, they are predominantly found in descriptions of the making of the Tabernacle and the High Priest's garments, as part of a series of coloured yarns used to construct certain holy elements. PURPLE coincides with broader themes relating to the divine within the Hebrew Bible. YHWH directly instructs these particular purples to be used; if they are not constructed correctly as per the instructions, it goes against YHWH. "Sea-purple" is also seen as a marker of sanctity and sacredness.

3.4. Summary

This chapter has demonstrated that PURPLE was a significant colour category across the ancient world. As scholars have previously presented, PURPLE was very popular and cognitively understood as a symbol of wealth, power and social status. Though there are other "purple" colour terms in PURPLE, as well as the "fake," animal or plant based, cheaper alternatives, this chapter solely focussed on "sea-purple", the epitome and prototypical "purple" in PURPLE. Examining the use of "sea-purple" in Homer, Herodotus and the Hebrew Bible demonstrated two notions: 1) there are common uses of the colour; and 2) "sea-purple" relates to broader themes and cultural associations, such as wealth, social power, gender and the divine.

The majority of occurrences throughout Homeric epic, the *Histories*, and the Hebrew Bible show the "sea-purple" dye as a material phenomenon; it is something tangible that a character weaves, spins, makes, puts on or handles. It is not strictly referred to as the abstract colour "purple" but rather as the "sea-purple" dye itself, highlighting especially the violet hue or the sheen of it. Homer, Herodotus and the Hebrew Bible use the colour to convey further cultural

associations and relate to broader themes. These are: wealth, types of power, social status, the surrounding environment, catastrophe, the body, gender, and the divine. Wealth, power and social status have a triadic relationship whereby all corpora show the "sea-purple" material worn by those of high social rank, who can afford to buy the materials. This in turn means power. Homer particularly emphasises "sea-purple" in relation to the natural body. He uses πορφυρεος's connection with πορφυρω ("trouble, upheaving, surging") to describe a πορφυρεος heart and blood, plus a πορφυρεος death covering the eyes of the slain. Similarly, the Hebrew Bible also relates "sea-purple" to the natural body and uses the connotations of ארגמן as a luxuriant material to depict to the women's hair in Song of Songs.

Gender is significant in reference to "sea-purple": the women are skilled enough to weave and spin the dye; their hair is like "sea-purple"; and daughters of the divine appear as the personification of a "sea-purple" rainbow and cloud. However, this is far less direct and less common compared to the descriptions of male interaction with "sea-purple". In Homer, the male heroes wear πορφυρεος, their πορφυρεος blood is spilled, and they have πορφυρω thoughts. Similarly, Herodotus emphasises the tribute and gift-giving aspect of sea-purple which is done between kings and rulers looking to add to their wealth and power. In the Hebrew Bible, it is the men who wear the תכלת fringes in Numbers to get closer to YHWH, and the men who make and wear the High Priest's garments. It is also thought the male lover is the one describing the female lover's ארגמן hair in Song of Songs 7. Furthermore, there is the argument that the Song of Songs is a Hellenistic document that was always written as a depiction of the love of the community for their god.[79] Thus, the lover's purple hair could be a reference to the purple fringes.

[79] For a discussion, see Joan B. Burton, "Themes of Female Desire and Self-Assertion in the Song of Songs and Hellenistic Poetry," in *Perspectives on the Song of Songs*, ed. Anselm C. Hagedorn, BZAW 346 (Berlin: de Gruyter, 2005), 180–202.

Finally, Homer and Herodotus both use "sea-purple" to associate with the divine: it is offered as sacrifice; the divine controls the πορφυρεος sea; intervenes when sending down πορφυρεος rainbows and clouds; and takes away life (πορφυρεος death and blood). The Hebrew Bible also associates "sea-purple" with YHWH. תכלת and ארגמן are divinely-approved materials that play a significant part in the making of the Tabernacle, the High Priest's garments and Solomon's Temple. When the Tent of Meeting moves, its ornaments are wrapped in "sea-purple". Ezekiel uses תכלת's occurrence in Numbers 4 as a reminder of how far Israel has come from YHWH.

All corpora emphasise the materiality of "sea-purple" and associate it with broader themes. Homer, Herodotus and the Hebrew Bible demonstrate the significance of "sea-purple" as a foreign and imported material. Herodotus describes Cambyses' gift to the Ethiopians, which included a πορφυρεος garment. When the Ethiopians were told where it came from and how it was made, they replied, "You are treacherous, and so are your garments." Similarly, the Hebrew Bible speaks of rulers and leaders of other nations outside of Israel and Judah who wear and interact with "sea-purple". This is shown by the Midianite and Assyrian officers, and also through Solomon's interaction with Hiram, the king of Tyre. The materiality of colour, the provenance of colour, and the cultural associations of colour are significant themes to emerge from the study of "sea-purple". PURPLE helps us to understand some of the key components of colour perception.

4. Materiality of Colour

> When they make these holy vestments for your brother Aaron and his sons to serve me as priests, they shall use זהב, תכלת, ארגמן, and תולעת שני, and שֵׁשׁ.
>
> Exodus 28:4–5

Ancient colour terms are fundamentally linked to material phenomena. Previous colour studies in the ancient Near East,[1] Egypt,[2] ancient Greece,[3] and Rome,[4] all suggest colour is categorised by tangible objects and the abstraction of colour terms comes later, if at all. Both Homer and Herodotus convey this idea of materiality with the significance of wearing, weaving, and giving "sea-purple" material. Exodus 28:4–5 is one example where the Hebrew Bible describes not only the materiality of "sea-purple" through תכלת and ארגמן, but the relationship colour has with multiple materials. Exodus 28 conveys the materials needed to make the High Priest's vestments; Aaron and his sons put on these colourful garments to change and alter the appearance of their natural bodies. With the body as a central reference point, this chapter looks at the embodiment of colour. It begins with biblical description of matter *in* the body, that is, the colourful, natural body. This is something Homer poetically embroidered: the brightness, sparkle or darkness of eyes (*Il.* 1.206; 3.397; 4.461), the darkness of hair, feet and skin (*Il.* 22.402; 11.629; *Od.* 16.176), white teeth, bones and bodies (*Il.* 5.291; 16.347; 5.314), yellow/blonde hair (*Il.* 3.284), and the redness or purpleness of blood (*Il.* 10.484; 17.361; 4.141). The biblical texts do something similar with the colour of skin, the face, hair, blood and the innards of the body.

[1] See 1.1.5.; Thavapalan, *Meaning*, 167–373.
[2] Warburton, "Colourful Meaning," 183–208; *idem.*, "Basic Color Term Evolution, 229–46.
[3] Grand-Clément, "Gold and Purple," 121–37; *idem.*, "Histoire," 123–43; Stulz, *Die Farbe*.
[4] Bradley, *Colour*, 11–2.

Next, the chapter examines matter placed *on* the body, the artificial man-made materials that cover up the natural body to create an unnatural "skin". This was something Homer also did, and Herodotus emphasised this. Herodotus describes a red herald (3.57.4), a white tunic (1.195.1), purple robes (9.22.2), black clothing (4.107), gold jewellery (3.22.2), emerald seals (3.41.1) and painted bodies (4.191.1). The Hebrew Bible describes multiple instances of cosmetics, dyed fabrics, jewellery and gemstones worn upon the body.

Finally, I analyse matter *consumed* by the body. These materials are traded, farmed and play a key part in the economics of the ancient world, and their appearances include chromatic language. Like Homer's descriptions of wine: αιθοψ ("sparkling, gleaming") (*Il.* 1.462 etc.) and ερυθρος ("red") (*Od.* 5.93 etc.), this section looks at the relationship between colour and wine, and colour and bread. It especially examines Genesis 25, as the narrative of Esau plays on אדם ("red"), including אדם stew. The consumption of food and drink relates to YHWH's judgement, defilement and impurity.

By working in an outward direction – from the surface of the body, to the tangible phenomena worn by the body, and then to the materials from the surrounding environment the body consumes, which brings us full circle back to the inner physiology of the body – attention to these physical colour terms create relate to how the ancient body was understood.

4.1. Matter *of* the Body

> Her princes were זכך than snow, צחח than milk; their bodies were more אדם than פנינים, their hair like ספיר.
>
> Lamentations 4:7

Lamentations 4 describes the aftermath of the temple being destroyed in 586 BCE. Verse 7 shows the rich chromatic language used to describe the appearance of the elite before this destruction. Their skin was bright and dazzling, their complexion was flushed and rosy, and their hair like a precious gemstone, shiny and luxurious. The body can be recognised as a canvas of social and cultural construction. Section 1.1.5 offered a glimpse into the significance of the corporeal matter in understanding of biblical colour perception, and this segment aims to develop that further.

4.1.1. Skin

Lamentations 4:7 begins with descriptions of the skin, the exterior of the body. The next verse, 4:8, describes the change in the princes' skin: חִשַׁךְ **מִשְּׁחוֹר** תֹּארָם לֹא נִכְּרוּ בַחוּצוֹת ("Their appearance is **blacker** than soot, they are not recognised in the streets").[5] This change from bright colours to dark is a result of the surrounding environment.[6] The brutality of the destruction meant skin was no longer comparable to precious stones but soot.[7] Song of Songs 1:5–6a also describes dark-coloured skin:[8] **שְׁחוֹרָה** אֲנִי וְנָאוָה בְּנוֹת יְרוּשָׁלִָם כְּאָהֳלֵי קֵדָר כִּירִיעוֹת שְׁלֹמֹה: אַל־תִּרְאוּנִי שֶׁאֲנִי **שְׁחַרְחֹרֶת** שֶׁשְּׁזָפַתְנִי הַשָּׁמֶשׁ ("I am **black** and beautiful, daughters of Jerusalem, like the tents of Kedar, like the curtains of Solomon. Do not look at me because I am **dark**, because the sun has gazed on me)." The skin has changed colour because of the sun. After being put to work in the vineyards,

[5] Cf. Lam 5:10a.
[6] Bradley (*Colour*, 150–9) discussed the skin blanching and blushing: when somebody displayed *rubor* ("redness") or *pallor* ("paleness") – often described side by side – it portrayed a change in colour complexion. *Rubor* expresses a temporary, harmless display of innocence and shame and *pallor* was often an unhealthy indication of innocence destroyed, powerlessness, or lovesickness; cf. *idem.*, "The Colour 'Blush' in Ancient Rome," in Cleland and Stears, *Colour in the Ancient Mediterranean World*, 117–21. Also see 1QapGen 2:9–18, where Lamech's face changes in response to thinking his son might be illegitimate.
[7] F.W. Dobbs-Allsopp, *Lamentations* (Louisville, KY: Westminster John Knox, 2002), 132; Gault, *Body*, 60–1.
[8] Contra Song 4 which indirectly relates the woman's body to colour in a portrayal of beauty: "your eyes are doves" (v.1), whiteness and purity; "your hair is like a flock of goats" (v.1), black/brown/dark; "your teeth are like a flock of shorn ewes" (v.2), whiteness; "your lips are like a crimson thread" (v.3), red; "your cheeks are like halves of a pomegranate" (v.3), pinkiness.

the lover is explicitly describing her skin tone's change to a darker, black colour.[9] The change in skin colour to "black" in Lamentations 4 is portrayed negatively. The connection is between שׁחר ("black") and נאוה ("lovely, beautiful") in Song 1:5 is questionable. Some scholars assume the bride is declaring her self-assured beauty, even against the current cultural norms.[10] However, Gault asks why, if her dark skin colour is not negative, she needs to explain what made her dark and continue to talk about her skin complexion.[11]

Job 30:30 also portrays שׁחר ("black") skin: עורי **שׁחר** מעלי ("My skin is **black** and [falls] from upon me"). Job's deteriorating, physical form is dried and cracked, affecting the external appearance of the body.[12] The root שׁחר in Lamentations 4:8, Song of Songs 1:5 and Job 30:30 conveys a body's surface changing colour to "black" because of environmental circumstances.[13] The use of שׁחר in Song of Songs 1:5 is ambiguous, but שׁחר skin in Lamentations 4:8 and Job 30:30 is portrayed negatively, evoking emotions of shame and

[9] Robert Kuloba Wabyanga, "Song of Songs 1:5-7: An Africana Reading," *Journal of Theology for South Africa* 150 (2014): 128–47 (134).
[10] F.W. Dobbs-Allsopp, "'I Am Black and Beautiful': The Song, Cixous, and Écriture Féminine," in Day and Pressler, *Engaging the Bible*, 128–40 (129–30); Exum, *Song of Songs*, 105; Keel, *Song of Songs*, 46; Pope, *Song of Songs*, 307.
[11] Gault (*Body*, 67–73) offers three explanations: 1) "black" and "lovely" are compared to the "tents of Kedar" and the "curtains of Solomon"; 2) both objects are known to be "black"; 3) one object is "black" and the other is "lovely".
[12] Habel proposed that Job is so close to death he resembles a corpse more than a healthy human Norman C. Habel, *The Book of Job*, CBC (New York: Cambridge University Press, 1975), 159; Greenstein argued Job's blistering skin reduces him to a fraction of his former self due to severe emaciation; Edward L. Greenstein, "Metaphors of Illness and Wellness in Job," in *"When the Morning Stars Sang": Essays in Honor of Choon Leon Seow on the Occasion of His Sixty-Fifth Birthday*, eds. Scott C. Jones and Christine Roy Yoder (Berlin: de Gruyter, 2018), 39–50 (43); cf. Alec Basson, "Just Skin and Bones: The Longing for Wholeness of the Body in the Book of Job," *VT* 58 (2008): 287–99 (292); David J.A. Clines, *Job 21–37*, WBC 18A (Nashville, TN: Thomas Nelson, 2006), 1011.
[13] The use of שׁחר here is not a description of race or ethnicity. כוּשׁ, on the other hand, can arguably designate a black person and possibly even a black person being singled out (Num 12:1; Jer 13:23; 2 Kgs19:9); Rodney S. Sadler Jr., *Can A Cushite Change His Skin?: An Examination of Race, Ethnicity, and Othering in the Hebrew Bible* (New York: T&T Clark, 2005); Kevin Burrell, *Cushites in the Hebrew Bible: Negotiating Ethnic Identity in the Past and Present* (Leiden: Brill, 2020); Charles B. Copher, *Black Biblical Studies: An Anthology of Charles B. Copher* (Chicago, IL: Black Light Fellowship, 1993); *idem*., "The Black Presence in the Old Testament," in *Stony the Road We Trod: African American Biblical Interpretation*, ed. Cain Hope Felder (Minneapolis, MN: Fortress, 1991), 146–65; Cain Hope Felder, "Race, Racism, and the Biblical Narratives," in Felder, *Stony the Road We Trod,* 127–45; Edward Ullendorf, *Ethiopia and the Bible* (Oxford: Oxford University Press, 1968).

distress. This is perhaps because the change in physiology is a result of YHWH's influence; both the Temple's destruction and Job's suffering were divinely permitted to happen; Song of Songs is an outlier.

Multiple colour terms feature in the descriptions of skin diseases in Leviticus 13 and 14.[14] The disease, צרעת, is a "leprous-like" illness that changes the physical appearance of the skin.[15] One of the physical changes is the appearance of a לבנה אדמדמת ("reddish-white") spot (Lev 13:19, 24, 42, 43) which is a sign of a localised inflammation. The main indicator of צרעת is for the lesions on the skin, or hair on the skin, to turn לבן ("white"). The priest checks whether the blemish is white before declaring the person טהר ("clean") or טמא ("unclean").[16] Whiteness of the skin itself – not the lesion, blemish or spot – indicates remission, showing that new skin has grown over the raw area, and contrasts with the negative portrayal of "black" skin described above.[17]

The story of Miriam in Numbers 12 brings this contrast between "black" and "white" skin to the forefront. In this narrative, the blackness of the skin is portrayed using כוּשׁ ("dark-skinned") and whiteness is described like being *completely* covered in שׁלג ("snow"), due to the white lesions of צרעת. Numbers 12 describes Miriam and Aaron's jealousy. They are also annoyed

[14] ירקרק, צהב and שׁחר also feature in these two chapters, however ירקרק denotes צרעת on materials and walls, and צהב and שׁחר describe the colour of hair, cf. 4.1.4.

[15] On צרעת and leprosy today, see John E. Hartley, *Leviticus*, WBC 4 (Nashville, TN: Thomas Nelson, 1992), 187–9; Erhard S. Gerstenberger, *Leviticus: A Commentary*, OTL (London: Westminster John Knox Press, 1993), 156–8; David P. Wright and Richard N. Jones, "Leprosy," *ABD* 4:277–82. I will use "leprosy" as a translation for צרעת, however, I am aware this is a modern gloss.

[16] For more on clean and unclean natures in Leviticus, see Mary Douglas' chapter "The Abominations of Leviticus" in *Purity and Danger: An Analysis of Concept of Pollution and Taboo* (London: Routledge, 1966), 42–58.

[17] Mary Douglas, *Leviticus as Literature* (Oxford: Oxford University Press, 1999), 183; כהה ("dim, dull, faint, colourless") reinforces this positive chromatic portrayal. Elsewhere in the Hebrew Bible, כהה is an idiom to convey the lack of something, mainly eyesight to reflect the lack of luminosity (Gen 27:1; Deut 34:7; Zech 11:17; Job 17:7). In the case of Leviticus 13, it describes the possibility of צרעת disappearing, the skin is not bright or oozing anymore but returning to its normal state.

that Moses married a כּוּשׁ woman. YHWH responds to their emotions with anger and strikes Miriam with צרעת (v.10) so she becomes leprous like snow (מצרעת כּשׁלג).[18] Brenner suggested שׁלג "probably" refers to the texture of the skin disease, i.e., the flakiness, rather than its whiteness.[19] However, both Gradwohl and Sadler understand this imagery to reflect the colour arguing that צרעת cannot be void of all colour content.[20] Perhaps שׁלג could be both the texture and the colour, as Miriam is also described as כּמת ("like the dead") (v.12) suggestive of a comparison between the "white" scales of צרעת and the whiteness of a dead body, furthering the connection between skin diseases and uncleanliness. Moreover, as Miriam refuted the fact that Moses married a כּוּשׁ woman (a dark, black-skinned person) YHWH inflicted צרעת (a white, flaky skin disease) upon her. As Miriam is struck with צרעת, YHWH reinforces Moses' uniqueness and scorns Miriam (cf. Exod 4:6–7).[21]

To summarise this section, change in the colour of the skin could be for two reasons: 1) the environment; or 2) YHWH orders it. The sun changes the appearance of the woman's skin to שׁחר in Song of Songs 1. YHWH allows Job to suffer turning his skin שׁחר. Change in skin colour is a predominantly a negative thing in the Hebrew Bible. When a person contracts צרעת ("leprosy"), a priest will look at the lesions, the blemishes, and the hair to see if they are לבן ("white") to declare the person unclean. However, if the skin itself is לבן, this is a positive sign of healing. When Miriam is struck with צרעת as a result of YHWH's anger, both BLACK and

[18] It is uncertain why YHWH only struck Miriam when Aaron also made these claims. The feminine singular Hebrew verb in 12:1 suggests that on some level of tradition Miriam alone confronted the issue, Rita J. Burns, "Miriam," *ABD* 4:869–70 (870a). From a feminist point of view, Miriam in Numbers 12 has been a key discussion topic, see, for example, Irmtraud Fischer, "The Authority of Miriam: A Feminist Reading of Numbers 12 Prompted by Jewish Interpretation," in *Exodus to Deuteronomy: A Feminist Companion to the Bible (Second Series)*, eds. Athalya Brenner, FCB 5 (Sheffield: Sheffield Academic, 2000), 159–75.
[19] Brenner, *Colour Terms*, 82; cf. Elizabeth V. Hulse, "The Nature of Biblical "Leprosy" and the Use of Alternative Medical Terms in Modern Translations of the Bible," *PEQ* 107 (1975): 87–105 (95).
[20] Gradwohl, *Die Farben*, 36; Sadler, *Cushite*, 37.
[21] Moses' body is not only disabled, but feminised. The affliction of צרעת associates him with Miriam and with the broader trope of the female body, excluding him from the community for exceeding its bounds; Rhiannon Graybill, *Are We Not Men? Unstable Masculinity in the Hebrew Prophets* (Oxford: Oxford University Press, 2016), 30, 36; William H.C. Propp, *Exodus 1–18*, AB 2 (New York: Doubleday, 1999), 210.

WHITE are significant in the narrative. שֶׁלֶג ("snow") demonstrates that Miriam has been completely covered with the white lesions of צרעת , directly contrasting her opinion on her כּוּשׁ ("dark-skinned") sister-in-law. שֶׁלֶג also appears in Lamentations 4:7 to convey the brightness of the skin. With Miriam, the whiteness of snow is associated with the negative symptoms of צרעת, such as its flakiness, but with the princes in Lamentations 4, the brightness of snow refers to the positive ideal of their skin before the destruction.

4.1.2. Face

A part of the skin regularly discussed in the biblical texts is פנים ("face"). This section looks at colour descriptions of the face in the Hebrew Bible and how chromatic language is used to describe change in facial complexion. The whole spectrum of human moods is reflected in פנים.[22] Geiger observed that Homer described faces "green with fear" and Jeremiah saw faces "turned green" with panic.[23] The relationship between colour and emotions is exploited in some of these biblical texts. Jeremiah 30:6 reads, שׁאלו־נא וראו אם־ילד זכר מדוע ראיתי כל־גבר ידיו על־חלציו כיולדה ונהפכו כל־פנים **לירקון** ("Ask now, and see, can a man bear a child? Why then do I see every man with his hands on his loins like a woman in labor? Why has every face turned **green**?"). The root ירק in this passage describes faces turning "green", as a result of the circumstances around them.[24] Gradwohl states the face turns "green" with terror, reflecting the pain of childbirth.[25] Aside from Jeremiah 30:6, other cases describe faces turning "pale" because of

[22] Schroer and Staubli, *Body Symbolism*, 85–91; Paul A. Kruger, "The Face and Emotions in the Hebrew Bible," *OTE* 18 (2005): 651–63.
[23] *Il.* 13.279; Grand-Clément discussed the change in complexion in Homeric epic which sees fear, as a physical symptom, manifesting on body's surface changing its colour; Grand-Clément, *La fabriques*, 38.
[24] The other five occurrences of ירקון (Deut 28:22; 1 Kgs 8:37; Amos 4:9; Hag 2:17; 2 Chr 6:28) translate as "mildew", something a person is struck with as a divine punishment; *DCH* 4:302; BDB 439; *HALOT* 1:440–1. On how "mildew" contributes to GREEN, see 1.1.4.1; and Ellena Lyell, "Cognitive Linguistics and Chromatic Language: Applying Modern Theories of Colour Perception to the Hebrew Bible," *SJOT* (forthcoming). Therefore, even if "green" was not the primary focus of פנים לירקון, a "mildew"-like face still infers the illness or disease that fear induces and thus relates to GREEN.
[25] Gradwohl, *Die Farben*, 32; cf. Bulakh, "Basic Color Terms," 204.

"fear",[26] Joel 2:6 reads, מפניו יחילו עמים כל־פנים קבצו **פארור** ("Before them the people writhe in pain, all faces grow **pale**"). Similarly, Nahum 2:11 says, ולב נמס ופק ברכים וחלחלה בכל־מתנים ופני כלם קבצו **פארור** ("Hearts faint and knees tremble, all loins quake, all faces grow **pale**"). פארור describes a physical response to being panic-stricken because of surrounding circumstances.[27] All these verses occur in contexts concerning destruction and divine punishment. Jeremiah 30:6, Joel 2:6, and Nahum 2:11 see faces changing to a green colour out of fear of YHWH and divine punishment. Joel 2 foresees YHWH's wrath, Nahum 2 describes YHWH's wrath upon Nineveh, and Jeremiah 30 portrays faces already green as a result of divine anger. The appropriate reaction to the appearance or intervention of YHWH is a fearful response – cf. "fear not!" whenever an angel appears[28] – so much so that in other occurrences of פנים people throw themselves worshipfully to the ground (e.g., Gen 17:1–3; 1 Kgs 18:39). GREEN includes the emotion fear.[29]

Another emotion expressed by the face that coincides with colour is when somebody is in love. Song of Songs 5:10 reads, דודי **צח ואדום** דגול מרבבה ("My beloved is **radiant** and **ruddy**, distinguished among ten thousand").[30] צח ("dazzling, glowing") refers to a bright, illuminating

---

[26] Paul A. Kruger, "A Cognitive Interpretation of the Emotion of Fear in the Hebrew Bible," *JNSL* 27 (2001): 77–89.

[27] The definition of פארור comes under debate: some scholars opt for redness or flushing, and the glow of the face. They refer to Isa 13:8 which ends with להבים פניהם ("enflamed faces"), and the Arabic and Syriac cognates of פרר (*'fr*, "to glow"; *nfar*, "to boil"); Gradwohl, *Die Farben*, 25; P.H. Schüngel, "Noch einmal zu קבוץ פרור Jo 2,6 ud Nah 2,11," *BN* 7 (1978): 29–31; *HALOT* 2:909; Gesenius 19 interprets as (negative) glow, like when having a temperature. Other scholars note that פארור relates to פרור ("pot") (Num 11:8; Judg 6:19; 1 Sam 2:14), implying one gathers the blackness from the burnt part of a pot; פארור means "blackness". Cf. KJV; LXX, ὡς πρόσκαυμα χύτρας ("like a burnt jug"); Vulgate, *omnes vultus redigentur in ollam* ("all faces shall gather blackness"); Targum, *'îcrûm 'ûcmîn kiqdêrā'* ("a coating of blackness like a pot"); Brenner, *Colour Terms*, 163; John Barton, *Joel and Obadiah: A Commentary*, OTL (Louisville, KY: Westminster John Knox, 2011), 67–8. Both Roberts and Crenshaw argued that קבצו ("to gather") makes the face turn "pale" on the understanding that if one gathers one takes away; J.J.M. Roberts, *Nahum, Habakkuk, and Zephaniah: A Commentary*, OTL (Louisville, KY: Westminster John Knox, 1991), 62; James L. Crenshaw, *Joel: A New Translation with Introduction and Commentary*, AB 24C (New York: Doubleday, 1995), 123.

[28] See also זיו ("brightness, splendour") found only in Daniel, which is always used in relation to the face and fear and divine intervention (Dan 2:31; 5:6, 9, 10; 7:28).

[29] Cf. Isaiah's "white faces" coincides with exposure of shame (Isa 29:22).

[30] Andruska argued that the root דגל (here translated as "distinguished") communicates feelings of awe and fear (like its military use in Song 6:4, 10). Terms for radiance were used in military contexts to convey the fearful

white complexion;[31] אדום ("red") suggests a flushing of the face, blushing at the compliments. Both צח and אדום are found in Lamentations 4:7 described above, where they depict aesthetically pleasing skin complexion of the nobles prior to Judah's defeat.[32] "Radiant and ruddy" complexion was desirable as a sign of health, youth and well-being, compared to the poverty and disease associations with having dark skin (Lam 4:8; Job 30:30; Song 1:5–6a).[33]

The eyes are also an example of the relationship between colour and emotions. The change in the state of the eyes is a response to the surrounding circumstances. The term כהה ("dim, dull, faint, colourless") predominantly describes somebody's eyesight dimming, the brightness and colour has gone from their eyes, perhaps implying cataracts. Job 17:7 relates the eyes to the emotion of grief, מכעש עיני **ותכה** ("My eyes have **grown dim** from grief"). Job's face is also "red" from crying. There is a deep darkness on his eyelids because of his suffering; 16:16 says, פני **חמרמרה** מני־בכי ועל עפעפי **צלמות**.[34] חמר signifies "a boiling up, a reddening" – a flushing of the face in response to a catastrophic situation.[35] The redness of חמר in Job's face parallels צלמות,

and awe-inspiring approach of a warrior; Jennifer Andruska, "The Strange Use of דגל in Song of Songs 5:10," *VT* 68 (2017): 1–7 (4–5).

[31] Noegel, "Scarlet," 44; Brenner, *Colour Terms*, 118–9; cf. Meik Gerhards, "Clothing and Nudity in the Song of Songs," in *Clothing and Nudity in the Hebrew Bible,* eds. Christoph Berner et al. (London: T&T Clark, 2019), 557–68.

[32] אדמני ("red, ruddy") in the narratives of David and Esau could describe their skin complexion or hair colour, however it is more likely the former. 1 Samuel 16:12a–b says David was "ruddy with beautiful eyes and was handsome" (cf. 1 Sam 17:42). אדמני juxtaposes "beautiful eyes" pointing to the colour of his complexion (cf. Song 5:10). Having "black" hair was a symbol of beauty (cf. 4.1.4), thus David, being such a prominent character and influential figure, would have had this. For a debate, see Ralph W. Klein, *1 Samuel*, WBC 10 (Waco, TX: World Books, 1983), 180. Brenner, *Colour Terms*, 127–9; Hartley*, Semantics*, 119–22; Gradwohl, *Die Farben*, 14; Hubbard, "The Eyes," 60; Penchansky, "Beauty," 55.

[33] Gault, *Body*, 61; The degradation of dark skin and the elevation of a fair complexion is not unique to the Hebrew Bible, but also other Jewish literature, Egyptian literature and iconography through to the Middle Ages and modern times, Gault, *Body*, 61–7. Cf. Homer's λευκωλενος ("white-armed") to describe Hera, Andromache, Helen, Arete and Nausicaa. Plus, Athena enhanced the appearance of Penelope making her "whiter than ivory" (*Od.* 18.195–6).

[34] Brenner, *Colour Terms*, 131; Habel, *The Book of Job*, 273; Marvin H. Pope, *Job: Introduction, Translation, and Notes*, AB 15 (New York: Doubleday, 1973), 124.

[35] *DCH* 3:258; BDB 330; *HALOT* 1:330; T. Collins, "The Physiology of Tears in the Old Testament: Part I," *CBQ* 33 (1971): 18–38 (36). חמר has a confusing etymology (Gradwohl, *Die Farben*, 16–8). Hartley (*Semantics*, 218–22) argued חמר means an inflammation and irritation of the face, rather than colour. Contra his commentary on Job, where it was "best" to follow the Arabic *ḥamara* ("red, reddish brown"); John Hartley, *The Book of Job* (Grand Rapids, MI: Eerdmans, 1988), 259.

which denotes the dark bags under Job's eyes and creating a chromatic contrast in Job's appearance.[36]

This chromatic contrast between "red" and "dark" is common in contexts concerning eyes. Section 1.1.5. demonstrated the significance of eyes in the biblical texts in relation to knowledge and understanding, as well as in descriptions of beauty. With the addition of emotions, eyes turning "red" or "dark" further conveys cultural themes of intelligence and beauty. Proverbs 23:29d reads, עינים **חכללות** למי ("Who has **redness** of eyes?"), describing the state of the eyes after drinking אדם ("red") and "sparkling" wine (v.31). In verse 31, "sparkling" comes from עינו ("his/its eye") of the cup; there is a transferred meaning of the sparkling nature of eyes onto the wine (cf. 4.3.2). This implies that *before* one drinks wine, the captivating "eye" of "red" coloured wine, its sparkle, seduces the drinker as promise of enjoyment and pleasure.[37] But *after* one drinks wine, the sparkle goes and the "red" colour of the wine progresses to the eyes of the drinker, showing their drunken state. It is this change in the eye colour that portrays the drunken state, and the lack of intelligence and beauty.

Genesis 49:12 uses the same root of חכללות to compare eyes to the darkness of wine: **חכלילי** עינים מיין **ולבן**־שׁנים מחלב ("His eyes are **dark** from wine, and his teeth **white** from milk"). This passage parallels dark eyes with לבן ("white") teeth.[38] Like the contrast in skin colour between לבן and שׁחר ("black") and then כושׁ ("dark-skinned people") and שׁלג ("snow"), this passage

[36] צלמות portrays a shadow (Amos 5:8; Job 3:5; 12:22; 16:16; 24:17; 28:3; 34:22), a representation of the world of the dead (Job 10:21, 22; 38:17), or figuratively conveys distress and danger (Isa 9:1; Jer 2:6; 13:16; Pss 23:4; 44:20; 107:10, 14).

[37] Clifford, *Proverbs*, 213–4; K.T. Aitken, "Proverbs," in *The Oxford Bible Commentary*, ed. John Barton and John Muddiman (Oxford: Oxford University Press, 2001), 405–22 (418); cf. Welton argues the "serpent" and "adder" imagery in v.32 reminds the reader of the serpent from the Garden of Eden, thus the consumption of the wine is just as tempting as the fruit, Rebekah Welton, *'He Is a Glutton and a Drunkard': Deviant Consumption in the Hebrew Bible*, BibInt 183 (Leiden: Brill, 2020), 182 fn.4.

[38] Gen 49 is the only description of לבן teeth, another colour description of the body (cf. indirectly Song 4:2).

contrasts יין ("wine") and חלב ("milk"), extending the range of materials that contribute to BLACK and WHITE. Both Proverbs 23:29 and Genesis 49:12 imply a dark, red-toned colour to characters' eyes[39] and both reflect the colour of wine and intellectual levels.

To conclude; chromatic descriptions of the face and parts of the face are used to portray a change in complexion or eye colour as a reaction to the surrounding circumstances. This is provoked by different types of emotions, such as the fear of YHWH or the distress of suffering and grief. Change in eye colour can also reflect a change in a person's intellect. When colour is used in these passages, it portrays a visual change in the body's materiality and reflects a cultural understanding of emotions and intellect.

4.1.3. Blood and Innards

The skin and the face experience paleness or flushing which is understood by modern physiology as a result of the blood rising or dropping. Chapter 2 showed the significance of Homeric use of blood, and 1.1.5. gave an overview of Noegel's study of RED in relation to blood. Bulakh argued blood was a natural prototype for RED in ancient Israel.[40] This section looks at chromatic descriptions of blood and touches on other matter inside the body in relation to colour. 2 Kings 3:22 says, כדם **אדמים** והשׁמשׁ זרחה על־המים ויראו מואב מנגד את־המים ("And the sun shone upon the water, the Moabites saw the water opposite them, it was **red** like blood").[41] The use of simile here is interesting, אדם could represent the consistency of blood, an oozing and thick coagulation, as well as the visual change in colour. Israel's enemy, the Moabites,

[39] Hartley (*The Semantics*, 177–81) suggests "darkness" than "dark red"; Noegel ("Scarlet," 4) solely thinks "darkness". חכללות, however, does not concern the dark rings around the eyes, but the lusterless eyes, William McKane, *Proverbs: A New Approach* (London: SCM Press, 1970), 393.
[40] Bulakh, "Basic Color Terms," 197.
[41] זרחה ("shone") in Genesis 38 is the name of the child that has a שׁני ("crimson") thread tied around him, Noegel, "Scarlet," 7; Gradwohl, *Die Farben*, 73–8; Landsberger, "Über Farben," 161; cf. the Akkadian cognate *inzaḫurētu* ("red dye, red wool"); *CAD* I, 163.

think multiple Israelites have been slaughtered, mistaking the water for *actual* blood or perhaps more likely, as water that is being coloured slightly red from the blood from bodies killed in or very neart it (v.23). Hartley suggested the simile in the verse means אדמים is a "bright red" colour,[42] but he, alongside Brenner and Gradwohl, acknowledged the singularity of the syntagm "red like blood". This suggests that, unlike English and other modern languages, "red" blood was perhaps not often-uttered coinage in the Hebrew Bible.[43]

The water in the verse is said to have flowed from Edom (v.20), which has a particular etymon-hermeneutical relationship with the root אדם and RED: אדם is the root of Edom's name and is also a land of red sandstone (cf. 4.3.1).[44] The relationship Edom has with RED is reinforced in Isaiah 63. The chapter opens with an unnamed voice asking, "Who is this that comes from Edom?" wearing חמץ ("dyed red") garments. After realising it is YHWH, he asks why YHWH's robes are אדם (v.2) (cf. 4.2.1.1). YHWH has been expressing his anger by stomping on some grapes, staining his garments (vv.3–6). This is a metaphorical depiction of trampling on and destroying the people of Edom, implying blood stains his robes.[45] Several texts refer to the "blood" of grapes, wine (Gen 49:11; Deut 32:14; Isa 1:22) (cf. 4.3.2.). Like descriptions of the face and wine above, there is comparison between blood and wine. The stains of dried blood made the YHWH's garment look like the garments of those who tread grapes, a "dark brownish red" colour.[46] The colour of blood is used to relate to something physical and material like wine.

[42] Hartley acknowledged the analogy is needed in this narrative to account for the effect of the water's colour change since אדם covers colours from "brown to orange"; Hartley*, Semantics*, 29, 116, 119; Brenner, *Colour Terms*, 66.
[43] Hartley*, Semantics*, 29; Brenner, *Colour Terms*, 65–6; Gradwohl, *Die Farben*, 5. The semantic merger of אדם ("red") and דם ("blood") is well attested in Akkadian (*adamu*/*damu*). On the phonetic similarity between אדם and דם, see Brenner, *Colour Terms,* 161; Gradwohl, *Die Farben*, 4–6; Bulakh, "Basic Color Terms," 198, 202. As 6.4. of this thesis will show, chromatic similes are predominantly only used in relation to the divine. The use of simile in 2 Kgs 3:22 most likely suggests wordplay between אדם and דם.
[44] Marvin A. Sweeney, *1 and 2 Kings*, OTL (Louisville, KY: Westminster John Knox, 2007), 284.
[45] Cf. Jer 13:12–14.
[46] Hartley*, Semantics*, 119.

Lamentations 1:20a says, ראה יהוה כי־צר־לי מעי **חמרמרו** ("See, Lord, how distressed I am; my stomach **churns**"). Lamentations 2:11a also says, כלו בדמעות עיני **חמרמרו** מעי ("My eyes are spent with weeping; my stomach **churns**"). חמר ("to boil up, to redden") was discussed above in Job 16:16, where it is used to portray Job's face "boiling up" in response to his catastrophic situation.[47] Its use in Lamentations is similar: YHWH had previously warned that the coming destruction would bring devastation and desolation.[48] The stomach boiling up or reddening is a reaction to this disaster. Noegel translates מעי חמרמרו as "my mood reddens".[49] This translation misses out the corporeal aspect as the stomach cramps were caused by emotional irritation.[50] Both Lamentations 1:20 and 2:11 mention the heart and the eyes, the body is central to these descriptions of despair. The role חמר plays in these passages shows that RED is more than a static colour category, it semiotically conveys a multi-sensory experience that encodes emotions of anger and distress in response to a drastic change in circumstances.

4.1.4. Hair

Finally, hair on the top of the head or elsewhere on the body is frequently spoken of in the biblical texts in terms of colour. The main motif that will be discussed here concerns black and grey hair, which marks an aesthetic difference between the youth and elders.

Firstly, שׁחר ("black") hair features in Leviticus 13 to signify a clean and pure person, somebody without צרעת, verse 37 says, ואם־בעיניו עמר הנתק ושׂער **שׁחר** צמח־בו נרפא הנתק טהור הוא וטהרו הכהן

[47] חמר also means "to foam up" or "to boil" and applies to the other occurrences of this term (Exod 2:3; Ps 46:4). חמר in Psalm 75:9 is "red" because it juxtaposes wine (cf. 4.3.2.).
[48] Lamentations 1 describes Jerusalem as a wanton woman with many lovers (v.2) who has sinned greatly "for they have seen her nakedness" (v.8).
[49] Noegel, "Scarlet," 24.
[50] Schroer and Staubli, *Body Symbolism*, 68; cf. Adele Berlin, *Lamentations: A Commentary*, OTL (Louisville, KY: Westminster John Knox, 2002), 59, 72; Hartley, *Semantics*, 222.

("But if in his eyes the scab has stopped, and the **black** hair has grown in it, the scab is healed, he is clean; and the priest shall pronounce him clean"). The appearance of "black" hair on the skin is portrayed positively compared to the negativity of "black" skin; it also directly contrasts the negativity of having "white" hair and the positivity of having "white" skin. Also in this chapter, is צהב ("gleaming, yellow, red-yellowish") hair (vv.30, 32, 36) used in contrast to "black" hair.

Other occurrences of black hair are also positively portrayed in the Hebrew Bible. Firstly, Song of Songs 5:11 describes the male lover's hair, ראשׁו **כתם** פז קוצותיו תלתלים **שׁחרות** כעורב ("His head is the **finest gold**; his locks are wavy, **black** as a raven"). The author demonstrates how precious the head is as whole, and how the male lover has youthful and luxurious hair.[51] The norm of "black" hair on a person is accentuated by comparing the beloved's beauty with the extreme blackness of a raven.[52] It also parallels his head of "fine gold" to extol his beauty above anybody else.[53]

Secondly, Ecclesiastes 11:10, והסר כעס מלבך והעבר רעה מבשׂרך כי־הילדות **והשׁחרות** הבל ("Remove sorrow from your heart, and put away pain from your flesh; for childhood and the **youth** are vanity"). Context ties both youthful and elderly ways of living together: life is good and the young can enjoy it best, but darkness will follow along with judgment from YHWH. 11:10 uses the *hapax legomenon* שׁחרות ("blackness of hair") which is usually interpreted as "youth" to

[51] Exum, *Song*, 204; cf. the female characters ארגמן hair in Song 7:6 (3.3.3).
[52] Keel, *Song of Songs*, 199; Hunt (*Poetry*, 225) looks at how the raven is a positive image throughout the Hebrew Bible and the ancient Near East and thus an appropriate image for the male lover.
[53] Hunt, *Poetry*, 224. This could relate to crowns made of the finest gold and placed upon heads of significant people, cf. 4.2.3; a notion present elsewhere in the ancient Near East, see Shana Zaia, "All That Glitters: Gold in the Royal Ideology of the Neo-Assyrian Empire," *Kaskal* 16 (2019): 409–30; Irene J. Winter, "Gold! Light and Lustre in Ancient Mesopotamia," in *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East: 12th April – 16th April 2010, British Museum and UCL, London*, eds. Roger Matthews and John Curtis (Wiesbaden: Harrassowitz, 2012), 153–71; Dobbs-Allsopp and James, "The Ekphrastic Figure(s)," 297–323.

mean the prime of life. It is a colour used to mark a youthful, far-from-death state.[54] It paradigmatically opposes the noun שֵׂיבָה ("grey hair"),[55] which can be a sign of weakness in a person's health or condition. For instance, the prophet Hosea describes foreigners taking advantage of Israel; Israel thus moves into old age approaching death as a nation.[56] Hosea 7:9 reads, אכלו זרים כחו והוא לא ידע גם־**שֵׂיבָה** זרקה בו והוא לא ידע ("Foreigners devour his strength, but he does not know it; **grey hairs** sprinkled upon him, but he does not know it"). שֵׂיבָה and its related form שֵׂיב describe multiple occurrences of grey hair.[57] Some of these occurrences suggest "grey hair" is a symbol of wisdom. Proverbs 16:31 says, עטרת תפארת **שֵׂיבָה** בדרך צדקה תמצא ("**Grey hair** is a crown of glory; it is found in the way of the righteous.") (cf. Prov 20:29). Both שְׂחֹרֹת and שֵׂיבָה are coloured hair. The colour of somebody's hair tells the reader about their age and ultimately their beauty; "white" and "black" act as antonyms in age and purity contexts.

4.1.5. Summary

The corporeal matter of skin, face, blood, innards and hair all refer to colour. Using colour words to describe physical matter strengthens the idea that colour is inherently multi-sensory. When colour words are used in relation to the natural body, they convey experience. Colour primarily depicts the change from the normal state of the skin or face to something different, as a response to the surrounding environment. These descriptions also coincide with broader

[54] The author constantly reminds the readers of the spectre of death throughout the book (2:14b; 3:19–20; 9:10–12); Roland E. Murphy, *Ecclesiastes*, WBC 23A (Grand Rapids, MI: Thomas Nelson Inc., 1992), 112–3; 117; cf. Loader, "The Dark Side," 344–5.
[55] Bulakh, "Basic Color Terms," 196.
[56] Daniel J. Simundson, *Hosea, Joel, Amos, Obadiah, Jonah, Micah*, AOTC (Nashville, TN: Abingdon, 2005), 63–4; A.A. Macintosh, *A Critical and Exegetical Commentary on Hosea* (Edinburgh: T&T Clark, 1997), 270.
[57] Some of these are "old age" itself: Gen 15:15; 25:8; Judg 8:32; Ruth 4:15; 1 Chr 29:28; Ps 92:15; Ezek 5:5, 9; 6:7, 8, 14; and the rest is grey hair: Gen 42:38; 44:29, 31; Lev 19:32; Deut 32:25; 1 Sam 12:2; 1 Kgs 2:6, 9; Isa 46:4; Hos 7:9; Ps 71:18; Prov 16:31; 20:29; Job 15:10; 41:32.

themes in the Hebrew Bible, such as beauty. Also, YHWH's divine punishment and intervention causes corporeal matter to change state, whether directly or indirectly.

4.2. Matter *on* the Body

> …though you clothe yourself in שני, though you deck yourself with ornaments of זהב, though you enlarge your eyes with פוך…
>
> Jeremiah 4:30

Colour in the Hebrew Bible has a special relationship to the natural body. The artificial materials placed upon the natural body are also associated with colour, changing its appearance and creating an unnatural skin. Jeremiah 4:30 describes Jerusalem acting like a prostitute and adorning herself in dyed materials, jewellery and cosmetics at the sight of incoming horsemen and bowmen (v.29).[58] This section explores the idea of adorning the body with coloured materials, to connote social status, power and wealth. The adornments in Jeremiah 4:30 pave the way for this section: 4.2. examines dyed fabrics, jewellery and cosmetics with an additional section on descriptions of gemstones.

4.2.1. Fabrics

The majority of colour terms displayed in *Table Three* are associated with dyes, pigments and agents. Chapter 3 demonstrated the significance of "sea-purple" as a material, focusing on תכלת and ארגמן. Throughout the Hebrew Bible, other dyed fabrics are used as well as "sea-purple"; there are multiple types of red fabrics, white/bleached fabrics, and terms that denote multi-coloured dyed fabric. These all adorn the body.

[58] Cf. Ezek 16; 23:5–34. Greco-Roman harlots were also known to wear "scarlet" as a pretension, replacing priestesses, queens or brides, Noegel, "Scarlet," 18; Marie Johnson, Ethel B. Abrahams, and Maria M.L. Evans, *Ancient Greek Dress* (Chicago, IL: Argonaut, 1964), 37–8.

4.2.1.1. RED

RED fabrics consist of four materials: שני, תולעת, כרמל, and אדם. The first, שני, is a "bright red", "scarlet"-like dye produced from the kermes worm *coccus ilicis*,[59] or "the nests of a scale insect."[60] The word appears 42 times in the biblical texts as a material phenomenon, used for clothing in the making of the Tabernacle and the High Priest's clothing, alongside תכלת and ארגמן. It is also a cord linked to the body (Gen 38:28, 30; Song 4:3),[61] a garment worn upon the body (2 Sam 1:24; Jer 4:30; Prov 31:21), and a material used in relation to cleansing and purifying the body (Lev 14:4, 6, 49, 51, 52; Num 19:6). Like תכלת and ארגמן, a שני garment symbolises wealth, social status and power. שני also has a close relationship to blood. It is used in the bloody context of childbirth when a שני thread is tied to the hand of Tamar's twin in Genesis 38:27–30. He is named Zerah, which is linked etymologically and by word play to the concept of a "bright colour", like שני.[62] Arguably, there is further word play with שני and שנים ("two"), as Zerah actually comes out second, after Perez. The irony that Zerah's hand appears first so he has a שני thread tied to it, but he is then born second (שני in the masculine construct form) cannot be ignored. Like the influence πορφυρω has on πορφυρεος in terms of meaning and significance, the same influence occurs between שנים and שני. Interestingly, Noegel demonstrated that tying a שני thread to mark the first of twins is not common to midwifery anywhere else in the ancient Near East, nor does it semiotically reflect the blood in the context

[59] Brenner, *Colour Terms*, 143; Gradwohl, *Die Farben*, 73–4.
[60] Hartley, *Semantics*, 197; contra Finitsis who argues שני comes from a different type of *murex* snail and is more crimson than scarlet, closer to "sea-purple"; Antonios Finitsis, "For All Her Household are Clothed in Crimson," in Finitsis, *Dress and Clothing*, 1–10 (5–6).
[61] Cf. Josh 18, 21, and a שני cord tied to a window as a sign of an oath.
[62] Brenner, *Colour Terms*, 157; Gradwohl, *Die Farben*, 73–8; Noegel, "Scarlet," 7; contra Landsberger, "Über-Farben," 161–9; Marten Stol, *Birth in Babylonia and the Bible: Its Mediterranean Setting*, CM 14 (Groningen: Styx, 2000), 135; Zimmerman compares זרה with the Aramaic זחוריתא ("scarlet"), Frank Zimmerman, "The Births of Perez and Zerah," *JBL* 64 (1945): 377–8.

of birthing,[63] but not only is wordplay at stake here, the שׁני thread preempts the future of Zera. Genesis 38 is a narrative of deception between Judah and Tamar that ultimately ends in twins.[64] When the cord is tied to the hand of Zerah, it offers a glimpse into his and his descendants' future. The negative cultural associations of blood are associated in שׁני, signaling that his future is one of bloodshed and defilement (cf. Josh 7; 22:20).[65] Therefore etymological hermeneutics and the cultural associations attached to שׁני create a deeper meaning and significance to the narrative.

The relationship that שׁני has with blood is also apparent in David's dirge over Saul and Jonathan in 2 Samuel 1 (vv.16, 22, 24). Saul clothed the women of Israel in prosperity and luxury (v.24); their שׁני garments reflect the bloodshed from Saul's death and the battle going on around them.[66] Gender comes into play as women are adorned in שׁני. Similarly Proverbs 31:21 says, לֹא־תִירָא לְבֵיתָהּ מִשָּׁלֶג כִּי כָל־בֵּיתָהּ לָבֻשׁ **שָׁנִים**: ("She is not afraid for her household when it snows, for all her household are clothed in **scarlet**"). Proverbs 31:10–31 explores the relationship between

[63] Noegel, "Scarlet," 7. Contra Huddlestun who interpreted the crimson thread as a status marker for the rightfully firstborn Zerah, unjustly supplanted by his brother, John R. Huddlestun, "Divestiture, Deception, and Demotion: The Garment Motif in Genesis 37–39," *JSOT* 98 (2002): 47–62 (60 fn.34). While it is not related to designating the first-born, scarlet threads are very commonly used in rituals associated with conception and childbirth: red wool tied around a baby's neck could provide protection against sorcery; twisting a red thread and then binding it around a woman's thigh will provide protection and relief during childbirth or can even prevent miscarriage, Stol, *Birth in Babylonia*, 94, 134; Jo Ann Scurlock and Burton R. Andersen, *Diagnoses in Assyrian and Babylonian Medicine: Ancient Sources, Translations, and Modern Medical Analyses* (Chicago, IL: University of Illinois Press, 2005), 259, 274, 276, 279; and for discussion, see Laura Quick*, Dress, Adornment and the Body in the Hebrew Bible* (Oxford: Oxford University Press, forthcoming), Chapter Two.

[64] On deception and garments, see Huddlestun, "Divestiture," 52–62; Franziska Ede, "The Garment Motif in Gen. 37–39," in Berner et al., *Clothing and Nudity*, 389–402 (395–400). Quick argued that non-permanent forms of body adornment (i.e. changing clothes), allows the individual to adopt and discard multiple sexual identities and personalities, Laura Quick, "Decorated Women: A Sociological Approach to the Function of Cosmetics in the Books of Esther and Ruth," *BibInt* 27 (2019): 354–71 (364).

[65] Zerah and his twin Perez are two of the sons of Judah and thus two heads of the Judean tribal line. In Joshua 7, Achan (son of Carmi, son of Zabdi, son of Zerah) keeps key possessions which angered YHWH and thus, caused bloodshed and wrath upon Israel (cf. Josh 22:20). Both Chronicles and Ruth trace David's heritage through Zerah's twin, Perez (Ruth 4:18–22; 1 Chr 2:3–15). Cf. "cords of death" in Pss 18:4; 116:3; Frederick E. Greenspahn, *When Brothers Dwell Together: The Preeminence of Younger Siblings in the Hebrew Bible* (Oxford: Oxford University Press, 1994), 115.

[66] In general, clothing is significant in the story of David's rise, Ora Horn Prouser, "Suited to the Throne: The Symbolic Use of Clothing in the David and Saul Narratives," *JSOT* 71 (1996): 27–37.

physical power and female gender in relation to dress and adornment of the אשׁת חיל ("Woman of Valour"). It is her success in manufacturing and trading (vv.22, 24) that gives her economic power to provide the members of her household luxurious clothes to keep warm.[67]

In Proverbs 31:21, שׁלג ("snow") implies the coolness of the weather, a temperature that needs the שׁני garments to keep warm.[68] The juxtaposition and contrast of RED and WHITE (in this case from שׁני and שׁלג) is common throughout the Hebrew Bible (e.g. Lam 4:7 above).[69] Isaiah 1:18 says, אם־יהיו חטאיכם **כשׁנים כשׁלג ילבינו** אם־**יאדימו כתולע** כצמר יהיו ("Though your sins are like **scarlet**, they shall be as **white** as **snow**; though they are **red** like **crimson**, they shall be like wool").[70] There are multiple ways in which this verse has been interpreted, particularly because of the use of similes.[71] Isaiah 1 describes Zion as a prostitute (v.21), whose sins are likened to those of Sodom and Gomorrah (v.10). The following verses (vv.19–20) explain that YHWH is looking for obedience; only then will Jerusalem achieve divine forgiveness. The associations of RED (defilement) and WHITE (purity) play a key part:[72] red sins being made white (i.e., bloody sins being made pure) seems improbable, but sins can be forgiven and removed if Jerusalem returns to YHWH. They will then not be as white or as bright as snow, rather the colour of wool.

---

[67] Fox, *Proverbs 10–31*, 896; Stefan Fischer, "Women's Dress Codes in the Book of Proverbs," in Berner et al., *Clothing and Nudity*, 543–56.

[68] Rendsburg argued that שׁני here has a double meaning: שׁני ("second, two") implies the garments double up as layers to keep her household warm; and שׁני parallel to שׁשׁ and ארגמן means "scarlet", Gary A. Rendsburg, "Word Play in Biblical Hebrew: An Eclectic Collection," in *Puns and Pundits: Wordplay in the Hebrew Bible and Ancient Near Eastern Literature*, ed. Scott B. Noegel (Bethesda, MD: CDL Press, 2000), 137–62 (146–7); cf. LXX Prov 31:21.

[69] Also Lev 14:4, 6, 49, 51, 52. In the context of contracting צרעת, a white, flaky skin disease, these verses describe a cleansing purification ritual. They use scarlet dyed fabric to contrast the whiteness of צרעת. The purity associations of WHITE, and the defiled and bloody situation can also be contrasted.

[70] Cf. Zech 3:3–5. Joshua's filthy clothing symbolises sin and is replaced with clean clothing in order to cleanse him from sin. His new garments are מחלצה which only occurs elsewhere in Isa 3:22 and relates to the Arabic *ḫalaṣa* ("to be pure, white"), Winton D. Thomas, "A Note on *maḥălāṣôt* in Zechariah iii 4," *JJS* 33 (1932): 279–80.

[71] John T. Willis, "On the Interpretation of Isaiah 1:18," *JSOT* 25 (1983): 35–54 (40–6).

[72] Noegel, "Scarlet," 10; cf. Dieckmann-von Bünau, "Paints (AT)"; Joseph Blenkinsopp, *Isaiah 1–39*, AB 19 (New York: Doubleday, 2000), 185.

שׁני is often juxtaposed with תולעת.[73] Previous scholars suggest תולעת שׁני is a phrase denoting a rich, "bright red" dye made from the eggs and bodies of female kermes worms, and תולעת specifies that שׁני comes from this worm.[74] There are "red"-coloured associations to תולעת when the term parallels שׁני (cf. Isa 1:18 above) as well as juxtaposed adjacent to it. Additionally, these associations of "red" are also evoked when תולעת appears on its own in Nahum 2:4 and Lamentations 4:5.[75] Nahum 2:4 discusses the shields of warriors are red (אדם) and the soldiers are adorned in תולעת; Lamentations 4:5 reads, האכלים למעדנים נשׁמו בחוצות האמנים עלי **תולע** חבקו אשׁפתות ("Those who ate delicacies are desolate in the streets, those who were brought up in **crimson** embrace ash heaps"). In most uses of תולעת, it functions in a similar way to שׁני in portraying a state of luxury. It is used in Tabernacle décor and the High Priest's vestments, and also to adorn warriors in Nahum 2:4 and to show the contrast in what the people before the destruction were once privileged to have; now, they have only ashes (Lam 4:5). Whether in construct with שׁני or on its own, תולעת like שׁני, has connotations of blood through warfare and destruction, but also a dyed fabric that denotes luxury.

Finally, כרמל and אדם are also "red" fabrics. כרמל refers to a "bright, rich red" dye produced from the eggs of the insect *cochenille*.[76] It features in 2 Chronicles 2:6, 13 and 3:14 and thought to substitute the phrase תולעת שׁני in LBH.[77] כרמל is a luxurious material used in the making of

[73] תולעת שׁני occurs 21 times (Exod 25:4; 26:1, 31, 36; 27:16; 28:6, 8, 15, 33; 35:6, 23; 36:8, 35, 37; 38:18; 39:2, 5, 8, 24, 29; Num 4:8); תולעת השׁני 6 times (Exod 28:5; 35:5, 35; 38:23; 39:1, 3); the inverted order, שׁני תולעת, occurs 3 times (Lev 14:4, 49; Num 19:6); and שׁני התולעת also 3 times (Lev 14:6, 51, 52).
[74] Hartley*, Semantics*, 192; Gradwohl, *Die Farben*, 73; Beyse, "שׁני," *TDOT* 15:339–42.
[75] cf. the occurrences of תולעת as a worm in the Hebrew Bible: Exod 16:20; Deut 28:39; Isa 14:11; 66:24; Jonah 4:7; Ps 22:7; Job 25:6.
[76] Hartley*, Semantics*, 209. Noegel ("Scarlet," 4, 23) proposes "vermilion" as a suitable translation of כרמל; cf. Greek κοκκινος ("scarlet") and the Latin coccus ("scarlet").
[77] Cf. Song 7:6; 3.3.2. The use of כרמל also adds to the overall "red" literary context of the poem: through wine descriptions (vv.3, 10); "grape-clusters", i.e., her breasts (vv.8, 9); vine and vineyards (vv. 9,13), and through its erotic imagery; Noegel, "Scarlet," 23.

Solomon's temple. However, the one occurrence of אדם ("red") fabric denotes a material that adorns the body.[78] 4.1.3. mentioned that a red robe stained with blood is represented of grape juice in Isaiah 63:2 (cf. Gen 49:11). YHWH is wearing these stained robes (cf. Isa 59:17) to depict a royal warrior at work, dressed in the splendid garments of a king, creating life and bringing renewal for his people by trampling their enemies.[79] Through bloodshed, the אדם robe demonstrates that the warrior brought salvation through victory.[80] Overall, adorning the body in RED fabrics evokes associations with blood and defilement.

4.2.1.2. WHITE

The preceding described instances where RED directly contrasts WHITE. "White" fabrics also adorn the body and, like RED and its association with blood, WHITE is associated with purity and cleanliness.[81] There are six terms that denote "white" fabrics: כרפס, לבן, בד, בוץ, חור and שֵׁשׁ.[82] כרפס is found only in Esther 1:6, where it is used to portray an elegant decoration hung in a Persian court. The other white fabrics adorn the body as an unnatural skin. בד, a "white fine linen", is used to describe the garments of the angelic figures who serve YHWH (Ezek 9; 10; Dan 10:5; 12:6, 7). It is also used to adorn the High Priest (Exod 28:42; 39:28; Lev 6:10; 16) and David in 1 Chronicles 15:27. בד relates to the divine and works its way down the social

[78] Dyed ram's skins (ערת אילם מאדמים) do not adorn the body but are dyed אדם for the Tabernacle (Exod 25:5; 26:14; 35:7, 23; 36:19; 39:34).
[79] Joel M. LeMon and Richard A. Purcell, "The Garments of God: Iconographic Case Studies from Isaiah 61:1; 59:17; and 63:1–6," in Berner et al., *Clothing and Nudity*, 269–88 (279–84).
[80] Walter Brueggemann, *Isaiah 40–66* (Louisville, KY: Westminster John Knox, 1998), 227; Brevard S. Childs, *Isaiah*, OTL (Louisville, KY: Westminster John Knox, 2001), 519.
[81] Almalech argued that "linen" is a "prototype rival term" in colour perception, i.e., "linen" opposes the prototype of WHITE with "light." Mony Almalech, "The Eight Kinds of Linen in the Old Testament," *Lexia: Journal of Semiotics* 7-8 (2011): 325–64. On the cultural discourses evoked by white clothing in the ancient world, see Candida R. Moss, *Divine Bodies: Resurrecting Perfection in the New Testament and Early Christianity* (New Haven: Yale University Press, 2019), 95–113.
[82] All denote "fine white linen". Linen is difficult to dye; Douglas Edwards, "Dress and Ornamentation," *ABD* 2:232–8 (232–3). Arguments could be made to include פִּשְׁתָּה ("flax, linen") and סדין ("linen") within this category, however, its occurrences do not imply connotations of colour, nor reflect its value; Hunt, *Poetry*, 273; Almalech, "The Eight," 325–64.

hierarchy from YHWH's messengers to the High Priest to King David. It is a luxurious material reserved only for those with social power and importance in the eyes of YHWH.

לבן ("white") appears in Ecclesiastes 9:8a as a white fabric, בכל־עת יהיו בגדיך **לבנים** ("Let your garments always be **white**,"). The lateness of this text is a reason why scholars argue that its colour range is much narrower reflecting a "true white."[83] לבן is then replaced by the post-exilic root חור (cf. 2.3.3.).[84] חור appears in LBH and Biblical Aramaic as a "fine linen". Daniel 7:9a-d reads, חזה הוית עד די כרסון רמיו ועתיק יומין יתב לבושׁה ו כתלג **חור** ("As I watched, thrones were set in place and an Ancient One took his throne, his clothing was **white** as snow"). Again, there is the "white as snow" comparison, and the verse also relates to the divine.[85] The splendour of the gleaming white garments of the majestic heavenly potentate sitting on the throne is compared to the glistening and whiteness of snow. חור is also found in Esther 8:15, which says, ומרדכי יצא ו מלפני המלך בלבושׁ מלכות **תכלת וחור** ועטרת **זהב** גדולה ותכריך **בוץ וארגמן** ("And Mordecai went out from before the king in royal robes of **blue-purple** and **white**, with a great crown of **gold** and a garment of **white fine linen** and **red-purple**…"). King Ahasuerus is rewarding Mordecai with WHITE and PURPLE garments, symbolic of nobility at the Persian court.[86] The use of both PURPLE (the verse begins with תכלת and then the following line has ארגמן) and WHITE (חור is followed by בוץ) stresses the significance of these royal robes.

---

[83] Hartley, *Semantics*, 101; cf. Brenner, *Colour Terms*, 90–1.

[84] חור also has an interesting relationship with כרפס. In Esther 1:6, the translation of חור ו כרפס causes debate among scholars. Bush views it as a compound phrase that as a whole denotes "white linen", Frederic Bush, *Ruth/Esther*, WBC 9 (Dallas, TX: Word Books, 1996), 348; Brenner ("'White," 42) proposes two separate terms where כרפס functions as a gloss or synonym to חור; Hartley (*Semantics*, 85–7) suggests the appearance of three nouns in a row at the beginning of the verse (חור ו כרפס ותצלת) is a collocation used to describe the breath-taking splendour of the setting.

[85] תלג is the Biblical Aramaic "snow", corresponding to שׁלג.

[86] Hartley, *Semantics*, 87; Spoelstra, "Mordecai's," 183–5; Verman, "Royal," 39–40. Mordecai's robes resemble those of the High Priest in Exodus 28, Spoelstra, "Mordecai's," 186–8; Jon D. Levenson, *Esther: A Commentary* (Louisville, KY: Westminster John Knox, 1997), 116; Christophe Nihan, "Le Pectoral d'Aaron et la figure du grand prêtre dans les traditions sacerdotales du Pentateuque," in *Congress Volume Stellenbosch 2016*, eds. Louis Jonker, Gideon Kotzé and Christl M. Maier, VTSup 77 (Leiden: Brill, 2017), 23–55.

Brenner argued that חור is synonymous with בוץ ("fine linen") in Esther.[87] בוץ adorns David in 1 Chronicles 15:27: ודויד מצרבל ו במעיל […] ועל־דויד אפוד **בד** ("David was clothed in a robe of **fine linen** […] and David wore a **linen** ephod"). All appearances of בוץ are late and post-exilic;[88] it is the later equivalent of שֵׁשׁ ("fine linen").[89] שֵׁשׁ is the fine linen used to adorn the High Priest in Exodus 28 and also the linen in which the Egyptian Pharaoh clothes Joseph in. Genesis 41:42 says, ויסר פרעה את־טבעתו מעל ידו ויתן אתה על־יד יוסף וילבש אתו בגדי־**שֵׁשׁ** וישֶׂם רבד **הזהב** על־צווארו ("And Pharaoh removed his signet ring from his hand and he put it on Joseph's hand; he clothed him in garments of **fine linen** and put a chain of **gold** around his neck"). Clothing in the Joseph narratives is a key marker for changes in Joseph's social status.[90] He receives a פסים garment from his father Jacob because he was his favourite son (see 4.2.1.3), then, at the conclusion of the narrative, he receives שֵׁשׁ garments from the Egyptian Pharaoh, also marking him as his favourite. These new robes represent an introduction into the Egyptian court. He adopts not only their customary royal robes, but also the high social status and authority, distinguishing himself in Egyptian eyes as a ruler.[91]

Additionally, שֵׁשׁ adorns important women. The "Woman of Valour" is adorned in שֵׁשׁ in Proverbs 31:22 and then YHWH clothes his bride with שֵׁשׁ in Ezekiel 16. Ezekiel 16:10 reads, ואלבישך **רקמה** ואנעלך תחש ואחבשך **בשש** ואכסך משי ("And I clothed you in **embroidered cloth** and with sandals of badger skin, and I bound you with **fine linen** and covered you with silk"). The bride is a metaphor for Israel; YHWH clothed her in the finest material. In sum, WHITE textiles

[87] Brenner, *Colour Terms*, 149; Brenner, "'White," 41; cf. LXX βυσσος ("byssus") instead of חור.
[88] The Chronicler adapted this verse from 2 Samuel 6:14; Sara Japhet, *1 and 2 Chronicles*, OTL (London: SCM Press, 1993), 306; cf. 5.2.1.
[89] Brenner, "'White," 41; Avi Hurvitz, "The Usage of שֵׁשׁ and בוץ in the Bible and its Implication for the Date of P," *HTR* 60 (1967): 117–21; Almalech, "The Eight," 340–2; Japhet, *1 and 2 Chronicles*, 306; Brenner, *Colour Terms*, 148; Gradwohl, *Die Farben*, 49; cf. 5.2.1; 5.2.3.
[90] For example, Gen 39 sees Joseph strip off his garment as he changes from a servant to a prisoner, see Victor H. Matthews, "The Anthropology of Clothing in the Joseph Narrative," *JSOT* 65 (1995): 25–36.
[91] *Ibid.*, 34–5.

adorned the bodies of significant people, both male and female, as well as messengers of YHWH. It was a visual representation of cleanliness and purity.

4.2.1.3. MULTI-COLOURED

Ezekiel 16 also uses רקמה ("coloured, embroidered fabric"). The Hebrew Bible contains many terms that denote a "multi-coloured" or "embroidered" cloth used to adorn the body. As well as material that YHWH clothes Israel in, רקמה, there is the verbal form רקם ("to variegate, weave coloured cloth"), which is a material used in the making of the Tabernacle and the High Priest's clothing. Interestingly, it is also the type of clothing princes and princesses of Tyre wore (Ezekiel 26:16a; Psalm 45:15[92]). רקמה is a material common across the ancient world and is widely traded;[93] it is also a recognised symbol of royalty and prestige, both as a noun primarily used in Ezekiel and Psalms and the verb in Exodus 26–39.[94]

A second multi-coloured fabric that adorns the body is פסים ("coloured tunic"). The nature of פסים has long been a problem for translators: the singular פס can mean "palm of the hand" or "sole of the foot",[95] leading פסים to perhaps mean a garment that reaches the hands and feet of the character.[96] E. Speiser turned to Mesopotamian literature, where cuneiform inventories have *kitû pišannu*, a ceremonial robe draped around the statues of goddesses, with various gold ornaments sewn onto it to reflect a colourful light.[97] Victor Hamilton has argued for a relation with the Akkadian *paspasu* ("brightly coloured bird") and the Phoenician *ps* ("tablet, piece"),

[92] In the line before v.14, the princess is decked in זהב ("gold") woven robes. It is the only description that describes זהב robes. For רקמה to follow so closely, almost parallel to it, reinforces its connotations of wealth and luxuriance.
[93] Ezekiel alludes to a similar concept with the *hapax legomenon* ברמים ("multi-coloured cloth") (Ezekiel 27:24).
[94] Cf. 5.2.4.
[95] BDB 821; *DCH* 6:722; *HALOT* 2:946; Bledstein, "Tamar," 66–7; cf. Introduction fn.80.
[96] Matthews, "The Anthropology," 30; cf. Claus Westermann, *Genesis 37–50: A Commentary*, (London: SPCK, 1986), 32–3, 37; Gerhard von Rad, *Genesis: A Commentary*, OTL (London: SCM Press, 1972), 351.
[97] E.A. Speiser, *Genesis*, AB 1 (New York: Doubleday, 1964), 290.

suggesting a garment made of pieces of bright materials sewn together.[98] In Genesis 37, the פסים garment visualises Joseph's status as Jacob's preferred son, and it is an identity marker for Joseph when Jacob learns of his alleged death by an animal attack.[99] The chain of events ultimately lead to Joseph's exile in Egypt, triggered by Jacob's greater love for Joseph over his brothers and the giving of the פסים garment.[100] The tunic is a material expression of the patriarch's love, but also Joseph's downfall.

In the midst of the Joseph narratives is Genesis 38, an interluding chapter describing Judah and Tamar. Tamar takes off her widow's garments and puts on a veil, disguising herself. She waits for her father-in-law Judah, who impregnates her with twins, Perez and Zerah (see above). The garments tie Genesis 38 to the Joseph narratives in Genesis 37 and 39.[101] פסים only occurs elsewhere in 2 Samuel 13 to describe the garments adorning the David's virgin daughter, Tamar.[102] The garment also has a significant role in that text, which describes the rape of Tamar by her brother Amnon (cf. 1.1.5). The garment symbolises Tamar's virginity; tearing the פסים reflects loss of virginity.[103] Some scholars have tried to connect the two characters of Tamar in Genesis 38 and 2 Sam 13.[104] Susan Niditch, in particular, does so on the grounds of clothing

---

[98] Victor P. Hamilton, *The Book of Genesis: Chapters 18–50*, NICOT (Grand Rapids, MI: Eerdmans, 1995), 408; cf. Nahum M. Sarna, *Genesis* (Philadelphia, PA: The Jewish Publication Society, 1989), 255; Bledstein, "Tamar," 68–9.

[99] Cohen, *Masking*, 53–71; כתנת is worn by a variety of biblical characters, male and female (Gen 3:21, 23, 31–3; 2 Sam 13:18, 19; 15:32; Isa 22:21; Job 30:18; Song 5:3). It is also a significant piece of clothing worn by Aaron and his sons (Exod 28:4, 39, 40; 29:5; 39:27; 40:14; Lev 16:4), however, what sets it apart, is the fact that the priestly כתנת is made from שֵׁשׁ ("fine linen") (Exod 28:39).

[100] Ede, "The Garment Motif," 390–2.

[101] Huddlestun, "Divestiture," 52–62; Ede, "The Garment Motif," 395–400.

[102] בתולה as "virgin" is debated, Ken Stone, *Sex, Honor and Power in the Deuteronomistic History*, JSOTSup 234 (Sheffield: Sheffield Academic Press, 1996), 107–112.

[103] The description of the tunic is also asymmetric and out of place in the narrative, drawing attention to the garment and its connotations even more, Mary Anna Bader, *Sexual Violation in the Hebrew Bible: A Multi-Methodological Study of Genesis 34 and 2 Samuel 13* (New York: Peter Lang, 2006), 150–2.

[104] Rendsburg genetically and lexically connects them, arguing that though Tamar in Gen 38 was chronologically earlier than Tamar in 2 Sam 13, she was a subsequent authored prefiguration of David's daughter, Gary A. Rendsburg, "David and his circle in Genesis XXXVIII," *VT* 36 (1986): 438–46. Thematically, Arbeitman highlighted how both Tamar narratives contain an "improper sexual episode within the family", suggesting that because of this, there is a deliberate naming of "Tamar" in the 2 Samuel 13 pericope, Yoël Arbeitman, "Tamar's Name or is It? (Gen 38)," *ZAW* 112 (2000): 341–55 (344 fn.5). Vayntrub explored how the two Tamar figures

and its relation to society. She expresses how the rape of David's daughter Tamar was "destructive of the social fabric," the tearing of the פסים garment tore apart her (and David's) social status. Niditch then argued that the "union between Judah and Tamar does not mar the social fabric, but repairs it,"[105] Tamar's veiling has a positive outcome. פסים is a form of identity that can symbolise high or low levels of social status and power.

Finally, טלא ("to spot, to variegate") predominantly describes the spotted nature of sheep and goats (Genesis 30: 32, 32, 33, 35, 35, 39). Alongside שֵׁשׁ and רקמה in Ezekiel 16:16, however, טלא is another precious material that YHWH gives to Israel to wear; the "faithless bride" has used these materials for adulterous ways.[106] Verse 16 says, ותקחי מבגדיך ותעשׂי־לך במות **טלאות** ("And you took some of your garments, and you made for yourself **multi-coloured** shrines…"). It was on these shrines that Israel committed her harlotries, relating colour to cultic rituals.[107] The brightly coloured materials were draped over the shrine, which attracted the attention of passers-by (cf. Prov 7:16–7).[108] טלא also describes the appearance of sandals worn by the Gibeonites in Joshua 9. Verses 3–15 convey how the Gibeonites pretend to come from a faraway land bearing mouldy food and worn-out clothes, to persuade Joshua and the Israelites to make a treaty with them. In the descriptions of the worn-out clothes, verse 9 describes the variegated sandals that adorn their feet. John Day highlighted that this narrative is a parallel to Deuteronomic literature and is evidence that either Joshua 9 depends on Deuteronomy 29, or

---

can be linked to the retelling of Abram and Sarai's journey to Egypt in the Genesis Apocryphon, where Sarai appears to Abram in a dream as a תמרא ("date palm"), Jacqueline Vayntrub, "Tamar and Her Botanical Image," *JBL* 139 (2020): 301–18 (302); cf. Leuchter who says the naming of both Tamars comes from an old myth regarding a woman of the same name who symbolised the principle of the land's numinous fertility, Mark Leuchter, "Genesis 38 in Social and Historical Perspective," *JBL* 132 (2013): 209–27 (226).

[105] Susan Niditch, "The Wronged Woman Righted: An Analysis of Genesis 38," *HTR* 72 (1979): 143–9 (149).

[106] The bride is no longer "passive and silent as a doll" as she is being beautified, but the tone of the story changes and Jerusalem acts on her own initiative, Heather A. McKay, "Gendering the Body: Clothes Maketh the (Wo)Man," in *Theology and the Body: Gender, Text and Ideology*, eds. Robert Hannaford and J'annine Jobling (Leominster: Gracewing, 1999), 84–104 (97–8).

[107] Sharon Moughtin-Mumby, *Sexual and Marital Metaphors in Hosea, Jeremiah, Isaiah and Ezekiel* (Oxford: Oxford University Press, 2008), 182.

[108] Daniel I. Block, *The Book of Ezekiel: Chapters 1–24*, NICOT (Grand Rapids, MI: Eerdmans, 1997), 488.

vice versa.[109] Deuteronomy 29:5 describes the Israelites in the wilderness, specifically wearing clothes and sandals that have not worn out (see also Neh 9:21). The טלא sandals are part of a larger narrative device that adds to the overall deception and helps the Gibeonites successfully make a treaty with the Israelites.

The multi-coloured textiles רקמה, פסים and טלא (plus the *hapax legomenon* ברמים) are all widely recognised materials in and outside Israel: רקמה and ברמים have strong relations to Tyre, פסים with Joseph and his exile to Egypt, טלא with the Gibeonites.[110] Wearing fabrics and garments in general marks a difference between males and females,[111] and they become symbols for the social positions of a person.[112] RED, WHITE and MULTI-COLOURED fabrics adorn the body for these reasons – but the chromaticity of the description goes beyond aesthetic purposes and beyond Israel. They convey connotations of wealth and social status, as well as relating to the divine in terms of defilement and purity. Fabrics changes the natural skin to an unnatural skin, communicating luxuriousness and identity in a bloody context, even in the case of the divine.

4.2.2. Jewellery

As well as adorning the body with fabrics, biblical texts use jewellery to modify and change the appearance of the natural body. Necklaces, bracelets, anklets, earrings and nose rings are made from metal. This section, as well as the following two on cosmetics and gemstones, are perhaps where the line between material/pigment and colour becomes a little blurred. The

[109] John Day, "Gibeon and Gibeonites in the Old Testament," in *Reflection and Refraction: Studies in Biblical Historiography in Honour of A. Graeme Auld*, eds. Robert Rezetko, Timothy Lim and Brian Aucker, VTSup 113 (Leiden: Brill, 2007), 113–38 (119).
[110] *Ibid.*, 113.
[111] Fischer, "Women's Dress Codes,"; Gerhards, "Clothing and Nudity," 557–68; McKay, "Gendering," 84–104; cf. Prov 31. In the Damascus Document 4Q270 7 i 13b–15a, there are differing punishments for those who complain about the male leaders of the community versus those who complain about female leaders, on the basis that only the fathers possess *rwqmh* ("embroidered fabric").
[112] Rainer Kessler, "'When You See the Naked, Cover Them!' (Isa. 58:7): The Clothing of the Poor as an Act of Righteousness," in Berner et al., *Clothing and Nudity*, 331–42.

discussions below focus solely on the material in contexts full of chromatic language to demonstrate that the body interacts with these coloured materials to enhance our sensory understanding of the text.

The presence of "gold" or "silver" metal aids the visual appearance and overall chromatic experience of the situation; instances of כסף ("silver") and זהב ("gold") adorning the body, offers an insight into the cultural understanding of the metals as a visual aid. These occurrences also demonstrate how jewellery portrays elements of beauty, wealth and change in social status, without being restricted to a specific gender. As *Tables Three* and *Eight* demonstrate, both כסף and זהב occur multiple times in varying contexts. In some cases, both כסף and זהב refer to jewellery in the same passage. For example, Genesis 24:53 reads, ויוצא העבד כלי־**כסף** וכלי **זהב** ובגדים ויתן לרבקה ומגדנת נתן לאחיה ולאמה ("And the servant brought out jewellery of **silver** and **gold**, and garments, and he gave them to Rebekah; he also gave precious ornaments to her brother and her mother"). In Abraham's old age, the narrative describes him sending out a servant to find a wife for his son Isaac; he finds Rebekah. Although Rebekah's consent to the marriage is not specifically stated, adorning herself with the jewellery implies this acceptance. Adorning Rebekah's body with gold and silver is a symbol of her new, higher social status and position within the family.

This change in social position is also present when YHWH adorns Israel in זהב and כסף in Ezekiel 16. YHWH lavishes his bride with valuable materials and dresses her in the finest jewellery (v.13). Verse 17, however, describes Israel making idolatrous statues out of the jewellery: ותקחי כלי תפארתך **מזהבי ומכספי** אשר נתתי לך ותעשי־לך צלמי זכר ותזני־בם ("And you have taken your beautiful jewellery of my **gold** and my **silver** that I had given you, and you made for yourself male images and played the harlot with them"). This verse is interesting; not only

are זהב and כסף precious pieces of jewellery that Israel has taken advantage of, but they are referred as תפארת ("beauty, glory") and they are YHWH's specifically (זהבי, "my gold"; כספי, "my silver"). YHWH chose them, they are a material of divine beauty.

The occurrences of both זהב and כסף jewellery in Genesis 24 and Ezekiel 16 show the significance of adorning the female body (metaphorical or literal) with jewellery in terms of social status and beauty. Song of Songs too, uses GOLD (זהב, כתם, and פז) throughout the book. Five out of six instances identify with the male lover.[113] The exception, Song 1:10–11, reads, נאוו לחייך בתרים צוארך בחרוזים: תורי **זהב** נעשׂה־לך עם נקדות **הכסף** ("Your cheeks are comely with ornaments, your neck with strings of jewels. We will make you ornaments of **gold**, studded with **silver**"). The "ornaments" and "strings of jewels" embellish her beauty,[114] and the "studded" jewellery will reflect her uniqueness. He wants the woman to resemble a mare of Pharaoh's chariots (v.9), standing out from the crowd.[115]

The idea of uniqueness is also present when jewellery adorns the male body. The obvious example for this are the descriptions of the materials in the High Priest's garments in Exodus 28 (6.2.), which includes multiple זהב rings and chains that make up the ephod and the breastplate. Other narratives also use jewellery to adorn the male body and portray their beauty, status, and their social power. For instance, Genesis 41 describes Joseph successfully interpreting Pharaoh's dream; along with the שֵׁשׁ garments, Pharaoh rewards him with a רבד הזהב ("the chain of gold") around his neck (v.42). He also takes off his signet ring and puts it on Joseph's hand. The signet ring is not explicitly described as זהב, though it most likely was.

[113] Song 3:10; 5:11, 11, 14, 15; arguably 1:10–11 is thought to be the exception, although the זהב and כסף ornaments still come from him.
[114] On the relationship between תור, נקדות, and חרוזים, and Egyptian cultural hegemony, see Hunt, *Poetry*, 270–1.
[115] Gerhards, "Clothing and Nudity," 564; cf. instances where animals are adorned with jewellery (Judg 8:21; Esth 6:8).

This lack of description could be for two reasons: 1) it makes the gold chain stand out against the שֵׁשׁ "white" garments; and 2) the טבעת ("signet ring") as a physical object is more culturally significant than to the visual goldness of it.[116] Giving and placing the gold chain around the neck was a sign of honour and, along with the signet ring, publicly appointed Joseph as the Grand Vizier of Egypt. He was endowed with all the symbols of that office. Both of these materials are attested in ancient Egyptian sources.[117]

Daniel 5 also conveys interpreting something foreign and then being rewarded with jewellery.[118] Belshazzar, who according to cuneiform inscriptions is the eldest son of king Nabonidus, ruled the city of Babylon whilst his father was in Teima.[119] Daniel 5:5–12 describes a disembodied hand writing a mysterious message on the wall. Belshazzar calls for experts to read and interpret the inscription.[120] In verse 7 (cf. vv.16, 29), Belshazzar promises to reward the one who gives the successful interpretation with "sea-purple" fabrics and "gold" jewellery: כל־אנשׁ די־יקרה כתבה דנה ופשׁרה יחוני **ארגונא** ילבשׁ והמונכא די־**דהבא** על־צוארה ותלתי במלכותא ישׁלט ("Any man who can read this writing and tell me its interpretation, shall be clothed in **purple**, have a chain of **gold** around his neck, and be the third ruler in the kingdom").[121] Here the word for "necklace", המניכא, is a Persian loanword that refers to an ornament worn by high-ranking Persian nobility, often a present from the king.[122] Daniel positively translates the writing and is adorned in "gold" foreign, royal materials.

---

[116] Cf. Zaia, "All That Glitters," 414–5.
[117] von Rad, *Genesis*, 377; Whybray, "Genesis," 62.
[118] Previous scholars highlight similarities between Gen 41 and Dan 2 (rather than Dan 5); Matthew S. Rindge, "Jewish Identity Under Foreign Rule: Daniel 2 as a Reconfiguration of Genesis 41," *JBL* 129 (2010): 85–104; John J. Collins, *Daniel*, Hermeneia (Minneapolis, MN: Fortress, 1993), 39–40; Choon Leong Seow, *Daniel* (Louisville, KY: Westminster John Knox, 2003), 34; Carol A. Newsom and Brennan W. Breed, *Daniel: A Commentary*, OTL (Louisville, KY: Westminster John Knox, 2014), 136.
[119] Collins, *Daniel*, 243; Seow, *Daniel*, 76.
[120] Newsom and Breed, *Daniel*, 170–1.
[121] This verse can be compared to Herodotus' description of Cambyses sending the Ethiopian gifts of a "sea-purple" cloak and a twisted "gold" necklace, 3.20.1; cf. 3.2.2.1.
[122] Xenophon, *Cyr*. 2.4.6.; 8.5.1.5; *Anab*. 1.2.27; 1.5.8; 8.29; cf. Collins, *Daniel*, 247; Newsom and Breed, *Daniel*, 171.

Overall, this section demonstrated that when זהב and כסף jewellery are given as a gift to a woman from significant characters, like YHWH or Abraham, it gives them a new identity and new social status. This also happens when a male character receives jewellery as a gift, with addition of social power and wealth. It is also interesting that the male characters receive from royalty a reward which reflects the cultural traditions of Egypt and Babylonia alike.[123] When the body is adorned with זהב and כסף, the characters become aesthetically pleasing and are prepared to take on their new role, whether as a wife or a ruler.

4.2.3. Cosmetics

Like dyed fabrics and jewellery, cosmetics (such as oils, perfumes, temporary dyes, and powders) are used throughout the Hebrew Bible in relation to chromatic language, modifying the body.[124] They are frequently used to enhance a person's natural beauty, communicate social status or sexual power.[125] This section will look at the interplay between colour and descriptions of oils, perfumes, temporary dyes, and powders, in the biblical texts.

First, I begin with שׁמן ("oil") which occurs throughout the Hebrew Bible in relation to ritual, food, lighting and medicine.[126] It is also used as a cosmetic to soften the skin (Ezek 16:9) and to modify it: Psalm 92 juxtaposes שׁמן with the fresh, green and virtuous nature of רענן. Verse 11 says, ותרם כראים קרני בלתי בשׁמן **רענן** ("But you have exalted my horn like that of a wild ox, I

[123] See 3.3.1. and Judges 8 whereby Gideon asks for all of the "gold", specifically types of jewellery such as earrings, ornaments and pendants, from the Midianites to make his ephod. The oppressor's jewellery becomes Israelite booty. Cf. Moses taking the Egyptian jewellery, Exod 12:35–6.

[124] Blanket terms such as רקה and בשׂם denote "perfumes" throughout the Hebrew Bible, however they do not occur as colour words; see Quick, "Decorated Women," 359.

[125] On sexual politics, see Esther Fuchs, *Sexual Politics in the Biblical Narrative: Reading the Hebrew Bible as a Woman*, JSOTSup 310 (Sheffield: Sheffield Academic Press, 2000); Klein, *From Deborah to Esther*; Stone, *Sex, Honor*, 68–133; Bader, *Sexual Violation*.

[126] See, for example, Lev 8:2; Isa 25:6; Exod 25:6; Isa 1:6. Also, the export of olive oil was an important element in the economy of Israel (1 Kgs 5:11//2 Chr 2:14–5; Ezra 3:7).

have been anointed with **green** oil"). The role of רענן in the Hebrew Bible is similar to that of χλορος and *uiridis*/*uirens* in Greek and Latin, respectively.[127] רענן has chromatic undertones of "green",[128] but also reflects the oozing and verdant side to the category. רענן also expands GREEN on a moral, ethical and theological level. The wider context of Psalm 92 is concerned with the divine, particularly YHWH's judgement.[129] Psalm 92 also contains "green" things throughout: עשׂב ("grass") v.8; תמר ("palm tree"), ארז בלבנון ("cedar of Lebanon") v.13; and רענן fruit in verse 15. רענן reflects the surrounding green imagery and its other, cultic use elsewhere in the biblical texts.[130] Its cosmetic use means that the character is rubbed in oil and gleams with virility and health. Parallel with קרן ("horn") of an ox, a symbol of strength and power, the anointing of רענן oil symbolises victory, gratification and strength.[131] Marvin Tate proposes that the "greenness" of רענן is a secondary meaning derived from the thick foliage of a thriving tree; the association of רענן with oil indicates that it is a fresh, high-quality oil, greenish in colour.[132]

Secondly, I want to draw attention to the temporary dyes applied to the body in a cosmetic fashion. Song of Songs 4:13–14c reads, שלחיך פרדס **רמונים** עם פרי מגדים **כפרים** עם־נרדים: נרד ו וכרכם קנה וקנמון עם כל־עצי לבונה מר ואהלות ("Your shoots are an orchard of **pomegranates** with excellent fruits, **henna** with nard, nard and **saffron**, calamus and cinnamon, with all trees of

[127] Clarke, "Semantics," 131–9; Bradley, *Colour*, 7–9.
[128] Contra Gradwohl, Brenner, and Hartley who all emit רענן.
[129] Frank-Lothar Hossfeld and Erich Zenger, *Psalms 2: A Commentary on Psalms 51–100*, Hermeneia (Minneapolis, MN: Fortress, 2005), 440; Marvin E. Tate, *Psalms 51–100*, WBC 20 (Grand Rapids, MI: Thomas Nelson, 1991), 460–71; Nava Cohen, "Psalm 92: Structure and Meaning," *ZAW* 125 (2013): 593–606 (602).
[130] Elsewhere in the Hebrew Bible, רענן refers to trees, plants, vegetation and food as a mark of nutrition and life, but also as a sign of idolatry, cults and YHWH's jealousy. "Under every רענן tree" is a common phrase associated with idolatrous ways (1 Kgs 14:23; 2 Kgs 16:4; 17:10; Isa 57:5; Jer 2:20; 3:6, 13; 17:2; Ezek 6:13; Hos 14:8; 2 Chr 28:4). For instance, YHWH highlights Israel's adultery with other gods is an act the nation does everywhere: "on every high hill" and "under every רענן tree" (Jer 3). "Under every רענן tree" is a stereotypical phrase used in condemning fertility cults and the ritual activities that take place under sacred trees in a sexual nature, Susan Ackerman, *Under Every Green Tree: Popular Religion in Sixth-Century Judah*, HSM 46 (Winona Lake, IN: Eisenbrauns, 2001), 113, 187–9; cf. Hos 4:13; Michael Zohary, *Plants of the Bible* (Cambridge, Cambridge University Press, 1982), 33.
[131] Cohen, "Psalm 92," 602; cf. Isa 61:3; Job 16:15.
[132] Tate, *Psalms 51–100*, 463.

frankincense, myrrh and aloes…").[133] Song 4 extolls the beauty of the female lover. Verses 13–14 use raw materials to portray the female body,[134] whilst Song 5:10–16 depicts the male body using cultivated products, such as חלב ("milk, cream"), מור עבר ("liquid myrrh"), and שֵׁן ("ivory").[135] Verses 13–14 are part of the garden metaphor, evoking the sexual and sensual relationship between the two lovers.[136] The repetition of key words and sounds link each line of the list to what goes before: the evocation of sound reflects the sensual nature of the context.[137] Brenner argued that, due to the stress placed on smell via the aromatic and perfume associations of these terms, there is a lack of chromatic language in this passage.[138] However, both sound and smell add to the chromatic experience. For instance, רמון ("pomegranate") in the biblical texts is portrayed as a fruit, a tree, a temple ornament and an adornment on the hem of the High Priest's clothing – all of which evoke smell and hearing.[139] In Babylonia, pomegranates were used as a dye from 2000 BCE and in Egypt from 1500 BCE.[140] It would create a luxurious purple, red or possibly pink colour. Different aspects of the pomegranate are called upon in Song of Songs,[141] but the colour and its connotations of luxury and fertility are present throughout the book.[142] Arguably, pomegranates are portrayed cosmetically: Song 4:3b says, כפלח **הרמון** רקתך מבעד לצמת ("Your temples are like pieces of **pomegranate** behind your

[133] Other spices and aromatic materials in Song 4:13–14 could also arguably have chromatic undertones. However, רמון, כפר, and כרכם elsewhere in the book/the Hebrew Bible adorn and modify the body.
[134] Cf. Prov 31 where the woman is responsible for seeking out the raw materials herself to make and cultivate them into linen, clothing and food.
[135] These materials also are reminiscent of statuary, Dobbs-Allsopp and James, "The Ekphrastic Figure(s)," 297–323.
[136] On the garden metaphor, see Hunt, *Poetry*, 103–40; Gault, *Body*, 110–21; Jennifer Andruska, *Wise and Foolish Love in the Song of Songs*, OtSt 75 (Leiden: Brill, 2019), 63, 66, 73, 75; Jill M. Munro, *Spikenard and Saffron: The Imagery of the Song of Songs*, JSOTSup 203 (Sheffield: Sheffield Academic Press, 1995), 80–116; Elaine T. James, *Landscapes of the Song of Songs: Poetry and Place* (Oxford: Oxford University Press, 2017), 55–87.
[137] James, *Landscapes*, 66.
[138] Brenner, *Colour Terms*, 153.
[139] C. Houtman, "On the Pomegranates and the Golden Bells of the High Priest's Mantle," *VT* 40 (1990): 223–9; cf. 6.2.
[140] Gradwohl, *Die Farben*, 80; cf. Thavapalan, *Meaning*, 184–5.
[141] Its blossom (6:11); the colour of the fruit and its insides (4:3; 6:7); the abundance of the harvest (4:13); pomegranate juice (8:2); Munro, *Spikenard*, 86.
[142] Hunt, *Poetry*, 169–71.

veil"). This phrase likens the deep red inner fruit with the blush of the outer skin, as a symbol of luxuriance and fertility. The second part of Song 4:3 parallels the bride having lips like a שׁני thread in the first. This too, could refer to the bride's natural beauty, with lips like the luxuriant scarlet material, most probably implies that a cosmetic has been applied, to get a bright colour to compliment the blushed pomegranate cheeks.[143]

Song 4:13–14 also features כפר ("henna") and only in this book does כפר relate to a henna plant (cf. 1:14; 4:13). Gradwohl suggests כפר is a red colour because Arabian women dyed their hair and painted their fingernails with henna.[144] The henna plant is known to have white clustering blossoms.[145] The chromatic language of כפר evokes a visual sense of whiteness and possible redness, olfactory from their fragrance, and tactility from אשׁכול ("cluster").[146] Also found in Song 4:13–14 is כרכם ("saffron"). כרכם was an expensive material to make: one pound of dye was extracted from 40,000 plants.[147] Stemming from the *crocus sativus*, the crocus is what gives it its yellow, saffron-colour. As well as a dye, it was also a spice used to flavour foods and a plant used for making frankincense.[148] Both כפר and כרכם are multi-sensory dyes centred around the female lover's body. Poetically, they push the boundaries of colour categories to include other senses, such as smell, touch and taste.

---

[143] Cf. the Greco-Roman use of "blush", see Bradley, "The Colour," 117–21; and also, there is evidence men wore rouge in early 2nd millennium BCE Mesopotamia, see Quick, *Dress*, 91–3, 153–4.
[144] Gradwohl (*Die Farben*, 79) uses this as an argument for having a red-coloured head in Song 7:6, thus leaning towards כרמל as "crimson". However, the cosmetic use of henna was unknown in Mesopotamia until the mid-first millennium BCE, Luc Renault, "Recherches sur le henné antique," *JNES* 68 (2009): 193–212. There is also a connection to copper via *kuprum* to כפר.
[145] Pope, *Song of Songs*, 493.
[146] Hunt, *Poetry*, 89; Gault, *Body*, 122.
[147] Gradwohl, *Die Farben*, 80.
[148] Noonan, *Non-Semitic*, 132; contra Brenner (*Colour Terms*, 153) who argued כרכם originates from the *curcuma longa*, which was used in Mesopotamia and Egypt as an aromatic too (cf. 5.3); cf. Zohary, *Plants of the Bible*, 207. The Greek κροκος ("saffron") is a flower that has purple petals, yellow stamens and red stigmas. κροκος had magical properties and specific roles in rituals; Pelletier-Michaud, "Colour me Greek," 300–1; Grand-Clément, *La fabrique*, 103–6; Bradley, "Colour as a Synaesthetic," 135.

Penultimately, I move onto powders which are used cosmetically to change the appearance of the natural body. The most prominent of these is פוך ("eye make-up, antimony"),[149] to which most scholars associate פוך with a black colour.[150] There is also this idea of "painting the eyes" which is expressed by the *hapax legomenon* כחל. This is done with a "dark or dark bluish powder",[151] which has the effect of blackening the area around the eyes.[152] Painting the eyes with pigments is a gendered activity, associated only with women. With the exception of Job's daughter, קרן הפוך (Job 42:14), whose name alludes to her natural beauty (Job 42:15), when women adorn their eyes with פוך it is primarily a negative action.[153] Ezekiel 23 describes Jerusalem's adultery when Oholibah bathes, paints her eyes and adorns herself (v.40). Similarly, Jeremiah 4:30 describes Judah "enlarging her eyes with **kohl**" (כי־תקרעי **בפוך** עיניך).[154] Interestingly, there is a common assumption that Queen Jezebel adorned herself in finery and cosmetics to indicate that she was seducing Jehu (cf. the Jezebel figure in Rev 2:20–22), which would support this negative association between women and cosmetics.[155] 2 Kings 9:30 says, ויבוא יהוא יזרעאלה ואיזבל שׁמעה ותשׂם **בפוך** עיניה ותיטב את־ראשׁה ותשׁקף בעד החלון ("And when Jehu came to Jezreel, Jezebel heard so she painted her eyes **in antimony** and adorned her head and looked through the window"). However, overall there is little evidence to depict Jezebel as a seductress, particularly given her old age and her words to Jehu are sarcastic, undermining and

[149] Brenner also includes the root שׂקר ("to ogle") because of its possible connection to סקר ("red paint") in Masoretic Hebrew; Brenner, *Colour Terms*, 151–2; cf. Gradwohl, *Die Farben*, 84.
[150] Gradwohl, *Die Farben*, 82; Brenner, *Colour Terms*, 151; Quick, "Decorated Women," 356–7; Sweeney, *1& 2 Kings*, 335; cf. 4.2.5; 5.2.3. for the relationship פוך has with נפך ("turquoise gemstone"). Moorey also demonstrated the link between kohl, the most popular cosmetic pigment in Mesopotamia, and "black" or "dark brown"; Moorey, *Ancient Mesopotamian*, 138–9.
[151] Hartley*, Semantics*, 210–1.
[152] Brenner, *Colour Terms*, 151.
[153] Quick, "Decorated Women," 360.
[154] The translation "enlarge" from the root קרע ("to rip, tear up") is interesting. It is semantically comparable to the verb used for kohl application in Akkadian, *saḫālum*-D ("to prick, to pierce"). It cannot but refer to a woman applying cosmetics to her eyelids with the help of a needle-like, or spoon-like, implement; Nathan Wasserman, "Piercing the Eyes: An Old Babylonian Love Incantation and the Preparation of Kohl," *BO* 72 (2015): 601–12 (606).
[155] Jezebel is a harlot because of the metaphor of harlotry in worship, she worships gods other than YHWH. She never engages in extra-marital relationships from her husband.

provocative rather than seductive. Furthermore, royal women generally wore make up, though it is significant that only Queen Jezebel is recorded as doing so before she dies. As a reader, we are told to read the chapter as negative from the beginning. This poses the question as to whether the adornment of the eyes are negative in 2 Kings originally, or do we as the reader make it negative? The link between the negative association with women and cosmetics in this case, might not focus on the seductive perspective, but rather the blurry image of Jezebel as a queen, illegitimate foreign woman, and her downfall.

Finally, שׁשׁר ("vermilion") in the Hebrew Bible may also be understood as a cosmetic.[156] Ezekiel 23:14 says, ותוסף אל־תזנותיה ותרא אנשׁי מחקה על־הקיר צלמי כשׂדיים חקקים **בשׁשׁר** ("But she increased her harlotry further; she saw men carved on the wall, images of the Chaldeans inscribed in **vermilion**"). This and the surrounding verses describe the adornments of the carved wall reliefs of male Chaldean warriors, after which Oholibah (Jerusalem) lusts.[157] Initially, the verse appears to escalate Jerusalem's affairs with Assyria and Babylonia. Jerusalem lusts after the Assyrians in the flesh to conceiving a passion for the Babylonians from their pictures.[158] 3.3.2. demonstrated that Ezekiel reminds Israel and Judah of its history with the Assyrians in Ezekiel 23 with a clever interplay with תכלת. Something similar is happening with the Babylonians and שׁשׁר.[159] שׁשׁר is a loan via Aramaic and influenced by the Akkadian *šaršerru*

[156] I must thank conversations with Laura Quick for this idea.
[157] Frank Ritchel Ames, "The Red-Stained Warrior in Ancient Israel," in *Warfare, Ritual, and Symbol in Biblical and Modern Contexts*, ed. Brad E. Kelle, Frank Ritchel Ames and Jacob L. Wright (Atlanta, GA: SBL Press, 2014), 83–109. Cf. שׁשׁר in Jer 22:14 which again uses "vermillion" to paint a wall relief, Mankowski argued the context here is unclear "whether the word represented a color, a coloring agent, or a technique of decoration characteristic of a particular agent", Paul V. Mankowski, *Akkadian Loanwords in Biblical Hebrew*, 149. On wall reliefs in the ancient Near East, see Irene J. Winter, "Royal Rhetoric and the Development of Historical Narrative in Neo-Assyrian Reliefs," *Studies in Visual Communication* 7 (1981): 2–38.
[158] Cf. Ezek 16:17; S. Tamar Kamionkowski, *Gender Reversal and Cosmic Chaos: A Study in the Book of Ezekiel*, JSOTSup 368 (Sheffield: Sheffield Academic Press, 2003), 144; Moshe Greenberg, *Ezekiel 21–37*, AB 22A (New York: Doubleday, 1997), 478.
[159] This could be seen as a neat colour parallel between the Assyrians in "sea-purple" and the Babylonians in "vermilion". Blue and red were a common pair in the ancient Near East. However, Liebermann ("'The Apparel," 9) rightly argued the colours were inextricably linked to the material they described, rather than abstractly portraying "blue" and "red".

("red clay or paste"), which is used in Neo-Assyrian rituals to activate the powers of wooden and clay figurines of monsters.[160] The Babylonian cosmetic is employed in a theologically significant way. שׁשׁר in Ezekiel 23 adorns the bodies of the male warriors, idolising them as powerful, divine-like figures.[161] It intentionally blurs the lines between the Mesopotamian idols and the foreign men to convey Jerusalem's desire for these men and their gods, neither of which are approved by YHWH.[162]

Overall, the cosmetics used to adorn the natural skin – whether oils, perfumes, temporary dyes and powders – are all materials key to the larger context of the narrative. For instance, the רענן oil is used to soften the skin and make it look healthy and gleaming; when juxtaposed with the ox in Psalm 92, it is a picture of strength and victory. The role of רמון, כפר and כרכם in Song 4 emphasises the luxuriance and fertility of the female character. By contrast, when a woman applies "black" eye-make up to her skin, it is portrayed in a negative way; when a man is painted in שׁשׁר, he is a powerful and divine-like figure in the narrative. The cultural implications of cosmetics are reflected in the colour of their application and are associated with power, fertility and gender.

---

[160] Thavapalan, *Meaning*, 346–7; cf. *CAD* Š/2, 124–5. On the use of *šaršerru* in rituals associated with monsters, F.A.M. Wiggerman, *Mesopotamian Protective Spirits: the Ritual Texts* (Groningen: Styx, 1992), 54–5. Herodotus uses μιλτος ("red ochre") (4.191.1; 7.69.1) to describe Lydian farmers painted in vermilion and the painted bodies of Ethiopian warriors. Interestingly, μιλτος is recorded a number of times in ancient Greek texts as the pigment used to colour terracotta and wooden figures to make them look alive (cf. Lucian, *Lexiphanes*, 22.14–5). It is also used in ancient Egypt to depict men painted on walls or as statues; Patricia A. Hannah, "The Cosmetic Use of Red Ochre (*Miltos*)," in Cleland, Stears and Davies, *Colour in the Ancient Mediterranean World*, 100–5. It should also be noted that *šaršerru* is also used in non-ritual practices, such as to describe the colour of a new-born child that is unusually red (*CAD* Š/2, 124).

[161] Quick demonstrated how these Chaldean officers are not necessarily high-ranking officials, they just have the appearance of them. Their dress and cosmetic use relates to their foreignness, defilement, apostasy and monstrosity. Thus, Oholibah is not attracted to their "good looks", rather something more insidious, Quick, "Art Aesthetics," 23; cf. Loader, "The Dark Side," 343.

[162] After all, if Oholibah is YHWH's wife, thus (quasi-)divine herself, the whole metaphor of YHWH's adulterous wife is not about *real* adultery but rather desire for other gods. This can be connected to the תכלת adorned Assyrians and when "sea-purple" is used to dress cult statues (cf. Jer 10:9; Brøns, "Sacred Colours." 109–17); she is after both Assyrian men *and* gods.

4.2.4. Gemstones

Gemstones predominantly adorn the body in the biblical texts (Exod 28:17–20; 39:10–13; Ezek 28:13).[163] The ancient world identified and classified precious stones by their colour, weight, hardness, transparency, conductivity, friction, taste and smell;[164] colour was a decisive criterion for the selection of a particular stone in antiquity.[165] Previous scholars have struggled to identify specific stones, but they all mention colour.[166]

To briefly catalogue the gemstones mentioned in Exodus 28, the rows on the breastplate include אדם ("ruby, carnelian), which comes from the same root as אדם ("red") suggesting a "red"-coloured stone); פטדה ("topaz"), a haematite colour (a reddish-black mineral) or a green or yellow colour;[167] ברקת ("emerald") a "green" colour;[168] נפך (possibly "turquoise");[169] ספיר ("sapphire, lapis lazuli") a deep violet, possibly blue, colour with gold specks. יהלם ("onyx") is probably the most disputed gemstone in the Hebrew Bible. It is thought to be either a milky or clear/transparent hue.[170] לשם ("jacinth, carnelian?") could be a green or an orange-coloured

[163] Other precious stones in the Hebrew Bible do not relate to the body: דר ("mother of pearl") (Est 1:6); פנינים ("pearls") (Prov 3:15; 8:11; 31:10 Job 28:18).
[164] P.L. Garber and R.W. Funk, "Jewels and Precious Stones," *IDB* 2:898–905 (899); Wolfgang Zwickel, "Die Edelsteine im Brustschild des Hohenpriesters und beim himmlischen Jerusalem," in Zwickel, *Edelsteine*, 50–70 (50); Brenner, *Colour Terms,* 165; Irene J. Winter, "The Aesthetic Value of Lapis Lazuli in Mesopotamia," in *Cornaline et pierres précieuses. La Méditerranée, de l'Antinquité à l'Islam*, ed. Annie Caubet (Paris: Musée du Louvre, 1999), 43–58; cf. Pliny and gemstones, Bradley *Colour*, 101–6.
[165] "in der Antike dagegen die Farbenprächtigkeit entschiedendes Kriterium für die Auswahl eines bestimmten Steines war," Zwickel, "Die Edelsteine," 52.
[166] John I. Durham, *Exodus*, WBC 3 (Waco, TX: Word, 1987), 387; see Amir Golani, *Jewelry from the Iron Age II Levant* (Göttingen: Vandenhoeck & Ruprecht, 2013), 31–7; Othmar Keel, *Corpus der Stempelsiegel-Amulette aus Palästina/Israel: Von den Anfängen bis zur Perserzeit Einleitung* (Göttingen: Vandenhoeck & Ruprecht, 1995), 141–9; Moorey, *Ancient Mesopotamian*, 91–103.
[167] Susan V. Meschel, "The Gems in the High Priest's Breastplate: A Pragmatic Review," *JBQ* 46 (2018): 241–51 (243).
[168] Brenner, *Colour Terms*, 166; James E. Harrell, James K. Hoffmeier and Kenton F. Williams, "Hebrew Gemstones in the Old Testament: A Lexical, Geological, and Archaeological Analysis," *BBR* 27 (2017): 1–52 (30–43, 45); Garber and Funk, "Jewels," 901–2; Zwickel, "Die Edelsteine," 54–5.
[169] נפך supposedly is a turquoise colour because of the trade routes (Ezek 27:16): Sinai was the source of turquoise and the Edomites may have been miners in the 7th/6th century, Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 17–8. Arguments can also be made for נפך to be a dark gemstone like "onyx" or "dark jasper" because of its linguistic relationship with פוך, Thomas O. Lambdin, "Egyptian Loan Words in the Old Testament," *JAOS* 73 (1953): 145–55 (152). However, Philo, Josephus and the Jerusalem Talmud all define נפך as a "red gem", Meschel, "The Gems," 244.
[170] Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 30–43, 45; Garber and Funk, "Jewels," 901–2.

zircon;[171] שְׁבוֹ (“agate”) is thought to be a multi-coloured stone, one of different coloured layers; אחלמה (“amethyst”) covers red, reddish-brown/reddish-orange, but most likely is a red-purple coloured stone. תַּרְשִׁישׁ (“beryl, yellow jasper”) is also disputed,[172] and שֹׁהַם (“onyx?”) is thought to cover the spectrum of purple and red.[173] Finally, יַשְׁפֵה (“jasper”) is a multi-coloured stone, likely a “patterned agate” or a “variegated jasper”. Apart from לֶשֶׁם, שְׁבוֹ, and אחלמה, these gemstones also appear in the apparel of the Tyrian king in Ezekiel 28:13.[174] These translations and possible colour associations are speculative, but each coloured gemstone serves a purpose in the breastplate, representing one of the twelve tribes.[175] These materials are imported (cf. Chapter 5) and picked out by YHWH. These materials were of high value and culturally understood to relate to broader themes. For example, ספיר in ancient Mesopotamia was thought to possess magical qualities and have properties related to gender and fertility.[176]

This section has shown briefly how gemstones were understood by their visual appearance and are physically worn on the body as part of garments and regalia. The majority of these precious stones were imported into Israel, increasing their worth and value. The gemstones used in the High Priest’s breastplate are divinely chosen and have foreign origins. As well as their

[171] Garber and Funk, “Jewels,” 901a.
[172] Brenner (*Colour Terms,* 167) designates it a sea-green/blue colour, others render it an amber/yellow colour, Harrell, Hoffemeier and Williams, “Hebrew Gemstones,” 25–7; Zwickel, “Die Edelsteine,” 61; Cyrus Gordon, “תַּרְשִׁישׁ,” *IDB* 4:517. Garber and Funk (“Jewels,” 900b) argued it is green in Exodus but yellow in Ezekiel.
[173] Meschel, “The Gems,” 246–7; Brenner, *Colour Terms*, 166; Harrell, Hoffmeier and Williams, “Hebrew Gemstones,” 28; *HALOT* 2:1424. Garber and Funk rendered it with “milky-white bands alternating with black”, Garber and Funk, “Jewels,” 901b; Zwickel (“Die Edelsteine,” 61–2) thinks a “green beryl” because of the Greek.
[174] Harrell, Hoffmeier and Williams, “Hebrew Gemstones,” 46–8; Zwickel, “Die Edelsteine,” 51–2; Lydia Lee, *Mapping Judah’s Far in Ezekiel’s Oracles Against the Nations*, ANEM 15 (Atlanta, GA: SBL Press, 2016), 95–101. For more scholarship on the identity of the stones see J.S. Harris, “The Stones of the High Priest’s Breastplate,” *The Annual of Leeds University Oriental Society* 5 (1963-65): 40–62; E.L. Gilmore, “Which Were the Original Twelve Gemstones of the First Biblical Breastplate?” *The Lapidary Journal* 22 (1968): 1130–4; Ann Swersky, “The High Priest's Breastplate,” *Ariel: Quarterly Review of Arts and Letters in Israel* 54 (1983): 107–20.
[175] Engraving the names of the twelve tribes onto the gemstones opens the opportunity of categorising the gemstones in terms of hardness; cf. Max Baur, “Härte,” in *Edelsteinkunde*, ed. Max Baur (Leipzig: Chr. Herm. Tauchnitz, 1909), 33–8.
[176] Winter, “The Aesthetic,” 53.

economic value and the pleasing aesthetic value, the cultural understanding of these gemstones should also be taken into consideration.

4.2.5. Summary

To summarise, this section looked at different coloured fabrics, jewellery, cosmetics and gemstones, all of which were used to adorn the natural body and alter its appearance. These materials created an unnatural skin and associated the body with wealth and types of power, as signifiers of social status, gender and beauty. Applying these coloured fabrics, jewellery and cosmetics to the body generates a multi-sensory experience. The biblical texts use other senses to compliment the colourful nature of the materials; it is not just a visual, aesthetic understanding but also includes touch, hearing, smell and taste. Additionally, all of these materials also relate to the cultures outside of ancient Palestine: different coloured fabrics are symbols of high status throughout the ancient world; jewellery is part of the royal traditions of Egypt and Babylonia; and cosmetics are used to attract foreign men. The origins of these materials are key to understanding their role in the Hebrew Bible.

4.3. Matter *consumed* by the Body

> When Jacob was cooking a stew, Esau came in from the field, and he was weary. Esau said to Jacob, "Let me eat some of that האדם האדם, for I am famished!" Thus, he was called Edom.
>
> Genesis 25:29–30

This chapter discusses the intimate relationship the body with the world it encounters and consumes. Food and drink are prime examples of this, as they were used as part of cosmetics

and were traded and taxed in Israel.[177] This section shows that these materials are handled by the body *and* consumed by the body. Most significantly for this study, they are described in relation to colour. Colour in the biblical texts is used in relation to the body and the surrounding environment: the consumption of food affects food production and levels of supply; the climate and geology of ancient Israel (including water resources and soil formation) affects the crops grown and the nutritious value of the food.[178] This section uses the story of Esau and Jacob in Genesis 25 as a case study to examine the significance of colour in relation to food and the larger narrative. It portrays Esau as a skilful hunter who loves the outdoors; famished, he returns to his younger brother Jacob (a quiet man who spent most of his time indoors) to eat the "red" food he cooked. I end with brief investigations into chromatic descriptions of wine, animals and bread, which all relate to the senses and broader cultural themes, such as purity and defilement.

4.3.1. Esau and "Stew"

The descriptions of Jacob and Esau in Genesis 25 use colour and food as tools to develop the narrative. Beginning with colour, the root אדם ("red") features heavily in relation to Esau. Like with Zerah and the שני ("crimson") thread wrapped around his hand, RED, whether אדם or שני, is associated with firstborn twins. Esau was the first son to Isaac and Rebekah, closely followed by his twin brother Jacob (Gen 25:25–6). When Esau was born, one of the two adjectives used to describe him was אדמני ("reddish").[179] This redness could convey the blood of childbirth, his

[177] Nathan MacDonald, *What Did the Ancient Israelites Eat? Diet in Biblical Times* (Grand Rapids, MI: Eerdmans, 2008), 92; *idem*., *Not Bread Alone: The Uses of Food in the Old Testament* (Oxford: Oxford University Press, 2008), 161–2.
[178] MacDonald, *What Did*, 50–6.
[179] The second adjective is שׂער ("hairy"). Esau's nickname, Edom (from the root אדם), is a land he and his descendants go on to reside at. Edom also had an alternative name, Seir, which is from the same root as "hairy" (שׂער). It should also be noted that there are linguistic puns surrounding Jacob's name too: Jacob was born clutching Esau's heel. The root of יעקב ("Jacob"), יעקב, is similar to "heel" (עקב). It is also similar to the "devious" heart in Jeremiah in 17:9: "The heart is devious [עקב] above all else…" providing an etymological signature of the treachery Jacob commits in deceiving his brother and father, Alter, *Art of Biblical Narrative*, 43;

skin complexion, his hair colour, or possibly figuratively, reflect the fall in his future (cf. Jer 49). Genesis 25:23 predicts the competitive nature between the twins. Esau hunted and spent time outside while Jacob "stayed among the tents" (v.27).[180] When Esau returns from being outside, he notices Jacob cooking. It is here that Esau first receives his nickname, Edom (v.30). Also from the root אדם, Edom is known for its red rocks and sandstone. The linguistic connection between Esau and Edom centres on אדם and reflects Esau's enthusiasm for nature. The connection between אדם and the male gender is also interesting: David was described as אדמני and the male lover in Song 5:10 as אדום. Noegel suggested this reflects male fertility, virility, manliness and prowess, related to Esau's love of hunting and the outdoors.[181]

However, as expressed previously, RED is also connoted with defilement. So, the use of this colour category and its connection to Esau also foreshadows his downfall. The food Jacob was cooking when Esau returned was האדם האדם (literally "red red"), more popularly translated as "the red stuff".[182] Jacob says that Esau will only receive this enticing "red" stew in exchange for his בכרה ("birthright").[183] Most scholars understand the repetition of האדם האדם to reflect Esau's inarticulate speech,[184] reinforcing the idea Esau only goes outside to hunt, compared to the devious Jacob who stays in and learns. Linguistically, an alternative reading means words were often repeated in Hebrew to intensify and heighten the situation.[185] This is strengthened

Bradford A. Anderson, *Brotherhood and Inheritance: A Canonical Reading of the Esau and Edom Traditions* (New York: T&T Clark, 2011), 33–7.

[180] Esau (Edom) competitively opposes Jacob (Israel) meaning these stories are part of a larger canvas than just one family, Greenspahn, *When Brothers*, 119.

[181] Noegel, "Scarlet," 31. Contra Brenner (*Colour Terms*, 62) who thinks the main reason Esau is connected with Edom and אדם/אדמני is due to phonetics and paronomasia; cf. Anderson, *Brotherhood*, 34.

[182] Robert Alter, *Genesis: Translation and Commentary* (New York: W.W. Norton, 1996), 129; J.P. Fokkelman, *Narrative Art in Genesis* (Assen: Van Gorcum, 1975), 96.

[183] On בכרה, see Bradford A. Anderson, "The Inversion of the Birth Order and the Title of the Firstborn," *VT* 60 (2010): 655–8.

[184] Anderson, *Brotherhood*, 43. Cf. the verb used to describe Esau eating (הלעיטנ) is used elsewhere for feeding animals, reflective of Esau's animal-like nature in terms of outdoors and intellect, Anderson, *Brotherhood*, 45–6; Alter, *Art of Biblical Narrative*, 44.

[185] Joseph H. Prouser, "Seeing Red: On Translating Esau's Request for Soup," *Conservative Judaism* 56 (2004): 13–20 (16–17). Text-critical proposals would have included deleting one האדם in the verse as an example of

by האדם האדם's key role in the narrative. Genesis 25:29–34 describes Esau's weariness and fatigue; he would do anything to feel energised again. He appears foolish in reacting to hunger, thinking only of his stomach, while Jacob is calculating – making him swear so that he cannot take the agreement of the birthright back (v.33).[186] Giving Jacob his birthright, which consequently leads to Isaac giving his blessing (Gen 27), linguistically intensifies the situation because of the repetition of האדם האדם.

The enticing nature of Jacob's food suggests the stew was a "deep" shade of red,[187] which lured Esau into Jacob's trap. Some scholars question the identity of what makes the pottage red – a red meat, a lentil stew or possibly a blood stew.[188] The semiotics behind אדם and the food itself in the narrative surpass this question. Esau exchanges his birthright for אדם food, he forgoes the honour of primogeniture and the benefits that come with being firstborn. Initially this exchange appears out of proportion,[189] but the consumption of food and the role of אדם is the start of an event destined to happen, evidenced by aetiology, etymology and linguistics.

4.3.2. Wine

The relationship between the colour of eyes and the colour of wine in Proverbs 23:31 and Genesis 49:12 was discussed towards the beginning of this chapter. חכללות and חכלילי denote a

dittography, but lack of such proposals strengthens the heightening repetition argument, Anderson, *Brotherhood*, 47.

[186] Thomas L. Brodie, *Genesis as Dialogue: A Literary, Historical and Theological Commentary* (Oxford: Oxford University Press, 2001), 300; Alter, *Genesis*, 128–30. The outcome of the bartering reflects their destinies: Jacob's craftiness means he gets the benefits of the birthright, whilst Esau is only destined for pottage "and no more", Walter Brueggemann, *Genesis: Interpretation* (Atlanta, GA: John Knox, 1982), 218.

[187] Sarna, *Genesis*, 182.

[188] For red meat, Gordon J. Wenham, *Genesis 16–50*, WBC 2 (Nashville, TN: Thomas Nelson, 2000), 178; for red lentil stew, Gradwohl, *Die Farben,* 7; Cynthia Shafer-Elliott, *Food in Ancient Judah: Domestic Cooking in the Time of the Hebrew Bible* (New York: Routledge, 2014)*,* 153–5; Anderson, *Brotherhood*, 48; Brenner, *Colour Terms,* 52, 59–62; Hartley*, Semantics,* 117, 119. "Blood stew" is a heavily criticised viewpoint. Daube argued that the repetition of האדם, Esau's deception in Gen 27:36, and the similar linguistic relevance between אדם and דם ("blood"), led to the idea that Jacob was deceiving his brother by preparing him a blood-broth, David Daube, "How Esau Sold His Birthright," *The Cambridge Law Journal* 8 (1942): 70–5.

[189] Dianne Bergant, *Genesis: In the Beginning* (Collegeville, MN: Liturgical Press, 2013), 116.

"red" sparkle to the wine, which hypnotizes people into consuming it. Similarly, wine is also described as חמר ("to boil up, to redden") in Psalm 75:9, כי כוס בידיהוה ויין **חמר** ו מלא מסך ויגר מזה אך־שׁמריה ימצו ישׁתו כל רשׁעי־ארץ ("For there is a cup in the hand of YHWH and the wine is **red**, full of spice; he pours a draught from it, and all the wicked of the earth shall drain it down to the dregs"). Here the wrath of YHWH is a full cup of wine (cf. Isa 51:17; Jer 25:15; Ezek 23:31–4; Job 21:20).[190] The greedy who drink and become intoxicated from the wine receive the wrath and judgement from YHWH. The role of חמר is to reflect this boiling up of YHWH's rage against the wicked.[191]

There are other metaphorical uses of wine in the Hebrew Bible, predominantly its relationship with blood as discussed above (cf. Isa 63:2; Jer 13:12–4). Noegel argued the similarity between wine and blood is the colour "red", and wine is associated with biology and fertility throughout the ancient Mediterranean world. The colour of fertility is therefore also "red".[192] Wine is also referred to as דמ־ענבים ("blood of grapes") reinforcing the symbolism of "red" in relation to wine and blood. For example, Deuteronomy 32:14c says, ודם־ענב תשׁתה־**חמר** ("You drank the **red wine** from the blood of grapes"). Here, חמר is similar to its verbal translation "to boil up, to redden", which strengthens the idea that the "blood of grapes" alludes to the colour and redness of the grape.[193] This comes from the skin of grapes crushed into the pulp.[194] Gradwohl acknowledged the semiotics of "blood of grapes" where wine is seen as the "life" of the grape,

[190] Welton, *'He is a Glutton*, 211–22.
[191] חמר here also relates to חמה ("wrath, rage") in Ps 76:11, cf. Isa 51:17; Joseph E. Jensen, "Psalm 75: Its Poetic Contexts and Structure," *CBQ* 63 (2001): 416–29 (421–2).
[192] Noegel, "Scarlet," 39.
[193] Contra Nelson, "'grapeblood' means wine is clear"; Richard D. Nelson, *Deuteronomy: A Commentary* (Louisville, KY: Westminster John Knox, 2002), 372. Brenner (*Colour Terms*, 77) mentions the modern view of "red wine" and "white wine" as an equivalent of the biblical syntagm. Sasson says Israel "probably" knew of white or pinkish grapes, but poets only compared wine to that of a dark hue; J.M. Sasson, "The Blood of Grapes: Viticulture and Intoxication in the Hebrew Bible," in *Drinking in Ancient Societies: History and Culture of Drinks in the Ancient Near East*, ed. L. Milano (Padua: Sargon, 1994), 399–419 (401).
[194] Sasson, "The Blood," 401.

and as such is comparable to blood.[195] The consumption of wine is largely understood in relation to blood, YHWH and fertility. The redness of the wine brings out these wider symbolic meanings and add to the overarching purpose of the narrative.

4.3.3. Bread

A similar notion happens with bread in relation to WHITE and purity. Exodus 16:31 says, ויקראו בית־ישׂראל את־שׁמו מן והוא כזרע גד **לבן** וטעמו כצפיחת בדבשׁ ("The house of Israel called it manna, and it was like coriander seed, **white**, and the taste of it was like wafers made with honey"). Moses goes into great detail regarding the visual appearance, which includes לבן, and taste of the manna bread.[196] In this verse לבן connotes "whiteness", as well as wholeness and nourishment in relation to life and purity. The manna bread was Israel's main food until they came to the land of Canaan (cf. Josh 5:12). Manna bread is a symbol of divine providence; at the beginning of the narrative, it is presented as a type of rain metaphorically understood for its abundance, ממטיר לכם לחם מן־השׁמים ("I shall rain down on them manna bread from heaven") (v.4).

Similarly, Genesis 40:16 Joseph interprets the chief baker's dream: ויראׂ שׂר־האפים כי טוב פתר ויאמר אל־יוסף אף־אני בחלומי והנה שׁלשׁה סלי **חרי** על־ראשׁי ("And when the chief baker saw that the interpretation was good, he said to Joseph, "I also had a dream: there were three **white bread baskets** on my head…"). Here, the baker and the cupbearer are imprisoned with Joseph who interprets both of their dreams. This passage goes on to describe the baker's dream, which resulted in Pharaoh hanging him (v.22). [197] The role of חרי ("white bread") in this dream

[195] Gradwohl, *Die Farben*, 10; cf. Brenner, *Colour Terms*, 77.

[196] מן ("manna") is an example of word play in v.15. In various Semitic languages, מן is an interrogative word meaning "who?" and later "what?" in Syriac. Rendsburg ("Word Play," 142–3) argued the author was attempting to portray a Semitic language that utilised מן for "what?" hence why Moses goes into great detail about manna bread.

[197] Noegel notices the puns, particularly how חרי plays on Pharaoh's חרה ("heated anger"), Scott Noegel, "Dreams and Dream Interpreters in Mesopotamia and in the Hebrew Bible (Old Testament)," in *Dreams: A*

represents the chief baker's life, which is taken away. In contrast with the cupbearer's dream (vv.9–13), the cupbearer takes responsibility for the wine he served to Pharaoh; if something was wrong with it he would have known. However, the baker abdicates any kind of responsibility for his baked goods: he transported them at a distance, carried them on his head where he could not see them; he described them vaguely as מכל מאכל פרעה מעשׂה אפה ("there were all kinds of baked goods for Pharaoh") (v.17) without any responsibility; and he failed to protect them from the birds.[198] The use of חרי signals the baker's downfall. Bread, therefore, is life, and juxtaposed with "white" (whether לבן manna or חור bread) exemplifies the importance of "white bread" in society.

4.3.4. Summary

When food and drink are consumed by the body and include references to chromatic language, wider cultural connotations come into play. The transformational act of consumption (i.e., through eating, the ontological status of food is transformed from something positive, associated with purity and abundance, to excrement: something often used in connection with sin and disgust) indirectly relates to colour (cf. Zech 3 where white garments are contrasted with excrement smeared ones).[199] Both RED and WHITE feature heavily in such contexts, with the two colour categories directly contrasted: bread and wine, purity and impurity. Furthermore, the description of the manna bread evokes taste, and the foaming nature of חמר wine suggests bubbling and sound. The play on words in Genesis 25 between Esau and אדם ("red") is also multi-sensory. As soon as Esau is born, he is described as אדמני ("ruddy"), relating to the

Reader on Religious, Cultural, and Psychological Dimensions of Dreaming, ed. Kelly Bulkely (New York: Palgrave, 2001), 45–73 (56–7).

[198] Diana Lipton, "Sweet Dreams? Interpreting Food in the Dreams of Pharaoh's Cupbearer and Baker," https://www.bibleinterp.com/PDFs/Joseph.pdf.

[199] Thomas Staubli, "Feces: The Primary Disgust Elicitor in the Hebrew Bible and in the Ancient Near East," in *Sounding Sensory Profiles in the Ancient Near East*, eds. Annette Schellenberg and Thomas Krüger (Atlanta, GA: SBL Press, 2019), 119–44.

experiences of childbirth. This situation, plus the nickname he is given, אדם ("Edom"), foreshadows Esau's destiny. Jacob lures Esau in with האדם האדם ("red stew") in exchange for his birthright. After agreeing to this, the consumption of the "red food" leads to Esau's residence at Edom, rather than the firstborn benefits Jacob has now inherited.

4.4. Summary

Colour terms in the Hebrew Bible are fundamentally tied to material phenomena. This chapter demonstrated three key points: 1) this material phenomenon is associated with the human body and its surrounding environment; 2) descriptions of colour suggest a multi-sensory experience; and 3) chromatic language epitomises broader themes of the Hebrew Bible such as beauty, divinity, social status and power.

Colour descriptions of skin, face, blood, the innards, and hair describe a change in circumstances from the "norm" to something else. Examples include Job's שְׁחֹר ("black skin") because of suffering; faces turning פארור ("a flush of redness") or ירק ("green") with fear because of divine intervention; and the stomach's חמר ("to boil up, to redden") as a response to the destruction of the temple in Lamentations 1:20. The reason for change is predominantly in the hands of YHWH.

Materials used to adorn the body, such as coloured fabrics, jewellery, cosmetics and gemstones, alter the natural appearance of the body. In the instances discussed above, these materials have inherent colours and enhance our sensory understanding of the context. Coloured fabrics create an unnatural skin and, as with PURPLE, evoke opulence and status, because the materials are expensive to produce and import. The application of cosmetics is seen as a negative act where a character tries to attain power and beauty by applying pigments to the face. This is because

the character takes matters into their own hands, demonstrating agency by altering their appearances, which contrasts 4.1. where YHWH is the one who changes the colour of faces. Some of the rituals that involved decorating the body also relate to places outside of Israel/Judah. This is particularly emphasised when a character is adorned with jewellery. The זהב ("gold") and כסף ("silver") jewellery aids the visual appearance of the character; this is done as part of royal rituals in Egypt (Pharaoh and Joseph) and Babylonia (Belshazzar and Daniel).

The matter consumed by the body demonstrates that colour is a multi-sensory experience, evoking taste, smell and hearing. The cultural connotations of RED and WHITE (defilement and purity) are particularly apparent with regards to the consumption of food and drink. Wine is described as "red", which is metaphorically used in relation to blood and the "blood of grapes", thus is associated with impurity. White bread, such as manna or "cakes", relates to life. The narratives of Esau capitalise on the semiotics of RED, playing on Esau's appearance, his love for the outdoors and his sibling rivalry. The role of אדם ("red") in the narrative predicts Esau's downfall from the beginning.

After highlighting the materials associated with colour in the Hebrew Bible, the next logical step is to ask where these materials came from. Warburton stressed the importance of materiality, but it was only through trade and economic exchange that abstract colour terms began to appear.[200] Thavapalan likewise notices how contact and exchange of materials had a notable impact on Akkadian colour language. When a coloured gemstone, the Iranian yellow calcite *duḫšu*, was brought to Mesopotamia through trade and as war spoils for example, the significance and frequency of the word increased in various documents.[201] Thus, the next

[200] Warburton, "Colourful Meaning," 197.
[201] Thavapalan, *Meaning*, 174.

chapter will look at the provenance of coloured materials and their relationships with traders and merchants, loanwords and cognates. It will look at the significance of foreign materials and how their provenance affects their interpretation in the biblical texts.

5. Provenance of Colour

> שֵׁשׁ־ברקמה from Egypt was spread to be your sail, תצלת and ארגמן from the coasts of Elishah was what covered you.
>
> Ezekiel 27:7

The multiplicity of materials used to designate colours in the Hebrew Bible raises questions about provenance and cultural usage. Herodotus used foreign words, which would have struck his audience as somewhat alien.[1] Studying where these colour terms came from and the contexts in which they were used develops our understanding of ancient colour perception further. We gain insight into a culture's skills in creating the coloured materials, and their economy and trading networks. For instance, in Ezekiel 27:7, the author introduces שֵׁשׁ ("fine linen") and רקמה ("coloured, embroidered fabric") from Egypt and תצלת and ארגמן (PURPLE) from the coasts of Elishah. These descriptions emphasise the opulence and wealth of the materials, which, in the larger context of the narrative, form part of the reason for Tyre's downfall (cf. 6.1.). At what point these words stopped being "foreign words" in Israel/Judah is impossible to tell, but these colour terms (both as words and as materials) originated from across the ancient world. Thus, the primary aim of this chapter is to show how the materials discussed in Chapter Four entered Biblical Hebrew as foreign words and entered ancient Israel and Judah as foreign materials. In most cases, the linguistic etymology and material etymology are similar; the loanwords and cognates can be historically traced, and direct contact between cultures through trade routes, merchants and commerce, alongside conquests and war, shows how the materials entered the Israel/Judah region.[2] This linguistic and material etymology will contribute to an argument

[1] For example, καλασιρις ("an Egyptian undergarment of linen"); Carolyn Dewald, ed., *Herodotus: The Histories, A New Translation by Robin Waterfield* (Oxford: Oxford University Press, 1998), 742–4.
[2] The geographical nomenclature used throughout this chapter uses the southern Levant as a broader area, and Israel/Judah for the more specific geographical area around Samaria and Jeru.

regarding the significance of provenance, in the wider context of the biblical narrative.[3] One of the questions this chapter aims to answer is what it means for the biblical texts if the majority of these materials were foreign or exotic.

To answer this, I look at the provenance of a colour term as a word *and* as a material. For the linguistic perspective, a clearer distinction needs to be made between the definitions of loanwords, calques, loan blends and loan-based creations; to do this I follow Martin Haspelmath's classifications.[4] Briefly, a loanword is here defined as a word that at some point in the history of a language entered its lexicon as a result of borrowing (or transfer or copying) from another language.[5] There are also a range of other borrowing phenomena that are closely related to loanwords. A loanword is the most significant type of *material* borrowing (i.e. the borrowing of sound-meaning pairs: lexemes, stems, affixes or even entire phrases), whilst a calque is the most important type of *structural* borrowing (i.e. the copying of syntactic, morphological or semantic patterns). A calque is a complex lexical unit that was created by an item-by-item translation of the source unit, these can be in the form of compounds, morphological derivatives or fixed phrasal expressions. Loanblends are hybrid borrowings which consist of partly borrowed material and partly native material, and the structural properties are also borrowed. Interestingly, most hybrid-looking or foreign-looking expressions are not borrowings at all, but loan-based creations. Loan-based creations are words created in

[3] For the value of an etymological study see, James Barr, "Etymology and the Old Testament," in *Language and Meaning: Studies in Hebrew Language and Biblical Exegesis*, ed. James Barr, OtSt 19 (Leiden: Brill, 1974), 1–28; Brenner, *Colour Terms*, 31–2; Gradwohl, *Die Farben*.
[4] Martin Haspelmath, "Lexical Borrowing: Concepts and Issues," in *Loanwords in the World's Languages: A Comparative Handbook*, ed. Martin Haspelmath and Uri Tadmor (Berlin: de Gruyter, 2009), 35–54 (36–40).
[5] On borrowing, see Campbell, *Historical*, 56; Haspelmath, "Lexical," 36–40; Noonan, *Non-Semitic*, 8; Hans Henrich Hock and Brian D. Joseph, *Language History, Language Change, and Language Relationship: An Introduction to Historical and Comparative Linguistics*, 2nd ed. (Berlin: de Gruyter, 2009), 241–2; Sarah Grey Thomason and Terrence Kaufman, *Language Contact, Creolization, and Genetic Linguistics* (Berkeley, CA: University of California Press, 1988), 37.

a language with material that was previously borrowed; such words are related to loanwords etymologically, but do not necessarily count as loanwords.[6]

In light of this, the linguistic etymology adopts criteria for identifying these non-native words (that is, foreign words) as outlined by various studies conducted on comparative linguistics.[7] These four criteria are as follows: 1) Biblical Hebrew has complex phonological and morphological patterns; if a word contains an irregular cluster of phonemes, it is probably a loan. For example, פטדה ("topaz") contains two consecutive harsh dentals (ט and ד), which is unusual for Biblical Hebrew.[8] 2) Non-Hebrew etymology and the evidence of cognates means the word is borrowed. If a word has multiple Semitic cognates and also a cognate from the other family of languages, then the cognate from another family of languages is thought to be the donor language.[9] For example, ארגמן ("red purple") – and the biblical Aramaic ארגון – have cognates from Akkadian (*argamannu*), Ugaritic (*a/irgmn*), Syriac (*ʾargwān* and *ʾargwānāyā*), Arabic (*ʾurjuwān* and *ʾurguwānī*), Hittite (*ark/gamman*) and Luwian (*arkamman*, cf. 3.1.).[10] It is thought to derive from the earlier Anatolian group of cognates. 3) The geographical and ecological associations of words can provide clues concerning the region and identity of the donor language, e.g., Egypt and Elishah in Ezekiel 27:7.[11] 4) "If a word occurs in a foreign context, such as a list of items obtained from a foreign region by trade, it may well be a foreign

[6] Lyle Campbell, *Historical Linguistics: An Introduction*, 3rd ed. (Cambridge: MIT Press, 2013), 56–7; Ian Young, Robert Rezetko and Martin Ehrensvärd, *Linguistic Dating of Biblical Texts: Volume 1: An Introduction to Approaches and Problems* (New York: Routledge, 2014), 280–1; cf. the different types of loanwords: where the loanword comes from (whether a loan from one Semitic language to another, or a loan from a non-Semitic language into a Semitic language for example) or the type of borrowing that occurs (directly, transmitted, culture, or a loanblend), see Mankowski, *Akkadian Loanwords*, 4–8; Noonan, *Non-Semitic*, 8–10; Wilfred G.E. Watson, "Loanwords in Semitic," *Aula Orientalis* 23 (2005): 191–8 (193–4); Einar Haugen and Marianne Mithun, "Borrowing: An Overview," in *International Encyclopedia of Linguistics: Vol. 1*, ed. William J. Frawley (Oxford: Oxford University Press, 2003), 197–200.

[7] These criteria are outlined in Noonan, *Non-Semitic*, 12–4, and Campbell, *Historical*, 61–6.

[8] Ellenbogen, *Foreign*, 133 fn.1; Noonan, *Non-Semitic*, 13.

[9] Campbell, *Historical*, 64–5. Evidently, this criterion is not universal and, like with all languages, there are exceptions.

[10] Ellenbogen, *Foreign*, 38; Noonan, *Non-Semitic*, 65.

[11] Campbell, *Historical*, 65; Noonan, *Non-Semitic*, 14.

loanword."[12] Examples include Ezekiel 27, the Persian setting of Esther, or the Egyptian setting of the Joseph narratives. Similarly, the semantic domain of a word can sometimes indicate a loan;[13] loanwords are often nouns, and nouns in the Hebrew Bible are usually associated with specific objects related to material culture.[14] These four criteria work well for well attested ancient languages, but for many poorly attested ancient languages, this methodology is not as sound. The following shows a large number of Akkadian loanwords in biblical Hebrew, attributable to the fact that a large number of Akkadian inscriptions exist and that it is attested from a very early stage. The same cannot be said for Phoenician or other Canaanite languages. Furthermore, in some cases, a word exists in one ancient language (e.g. Proto-Semitic) and is copied into another (e.g. Proto-Semitic ⇒ Akkadian) but in this language undergoes a loanblend process and then enters biblical Hebrew. Therefore, though the word is itself Proto-Semitic, the loanword is from Akkadian as it has little to do with its Proto-Semitic historical etymology. Nevertheless, though these issues are problematic for the specifics of working out the origins of a colour term, the primary aim of this chapter is to show colour terms are non-native words, they are foreign to Israel/Judah.

From a material point of view, the identifications of raw materials and where they were produced or mined is a difficult topic itself, it is even more difficult to explore how they entered one region from another. Methods within natural sciences can occasionally be of assistance. For example, lead isotopes can differentiate the geological origin of ancient metal artefacts. This points to potential geographic regions or mining districts that may have supplied sources.[15]

[12] Noonan, *Non-Semitic*, 14.
[13] Campbell, *Historical*, 65–6; Haspelmath, "Lexical," 45; Noonan, *Non-Semitic*, 14.
[14] Noonan, *Non-Semitic*, 14; Uri Tadmor, "Loanwords in the World's Languages: Findings and Results," in Haspelmath and Tadmor, *Loanwords in the World's Languages*, 55–75 (61–5); Hock and Joseph, *Language History*, 245–6.
[15] Brøns, "Ancient Colours," 330–1.

For the purposes of this study, the history of fluctuating cultural influences such as the exodus,[16] the *pax Assyriaca*,[17] the Babylonian exile and return from diaspora,[18] conquest and domination by different empires,[19] and royal trips[20] can all help identify routes and reasons why certain materials would be imported into Israel/Judah. There is additional evidence from other ancient texts of travel between places, evidence of direct contact between people and their languages, and thus, an integration of words and materials.[21] However, the available evidence of most of the following cases are very limited.

---

[16] This is not a debate as to whether or not the exodus actually happened, rather a reason to look at the exodus and wilderness narratives because they contain a significantly higher proportion of Egyptian materials and loanwords than in the rest of the Hebrew Bible. Egypt has a long list of influences in the Levant but this seemingly implies Israelites (again a term used to describe the community not kingdom) brought the materials out of Egypt when they fled; Benjamin J. Noonan, "Egyptian Loanwords as Evidence for the Authenticity of the Exodus and Wilderness Traditions," in *"Did I Not Bring Israel Out of Egypt?" Biblical, Archaeological, and Egyptological Perspectives on the Exodus Narratives*, eds. James K. Hoffmeier, Alan R. Millard, and Gary A. Rendsburg, BBRSup 13 (Winona Lake, IN: Eisenbrauns, 2016), 49–67.

[17] The phrase *pax Assyriaca* is often applied to Assyrian domination in the latter half of the eighth century through the reigns of Esarhaddon and Assurbanipal, as a description of the relative stable relationships between Assyrian and its western vassals. The impact of the *pax Assyriaca* not only meant Neo-Assyrian rule over cities in the southern Levant, but opportunities for trading routes to open and direct contact; C.L. Crouch, *The Making of Israel: Cultural Diversity in the southern Levant and the Formation of Ethnic Identity in Deuteronomy*, VTSup 162 (Leiden: Brill, 2016), 10–2; Kuhrt, *Ancient Near East: Volume 2*, 500–1.

[18] Stökl identified evidence for at least three kinds of communities of Judean exiles in Babylonia: 1) upper class Judeans at the royal court in Babylon, 2) traders throughout the Babylonian cities, and 3) subsistence farmers in the Nippur region; Jonathan Stökl, "A Youth Without Blemish, Handsome, Proficient in all Wisdom, Knowledgeable and Intelligent": Ezekiel's Access to Babylonian Culture," in *Exile and Return: The Babylonian Context*, eds. Jonathan Stökl and Caroline Waerzeggers, BZAW 478 (Berlin: de Gruyter, 2015), 223–52 (227). There is evidence that some of these people returned to their ancestral homeland when they were allowed to do so and did so via trading paths, the Euphrates route, or possibly royal roads; Lester L. Grabbe, "The Reality of the Return: The Biblical Picture Versus Historical Reconstruction," in Stökl and Waerzeggers, *Exile and Return*, 292–308 (301).

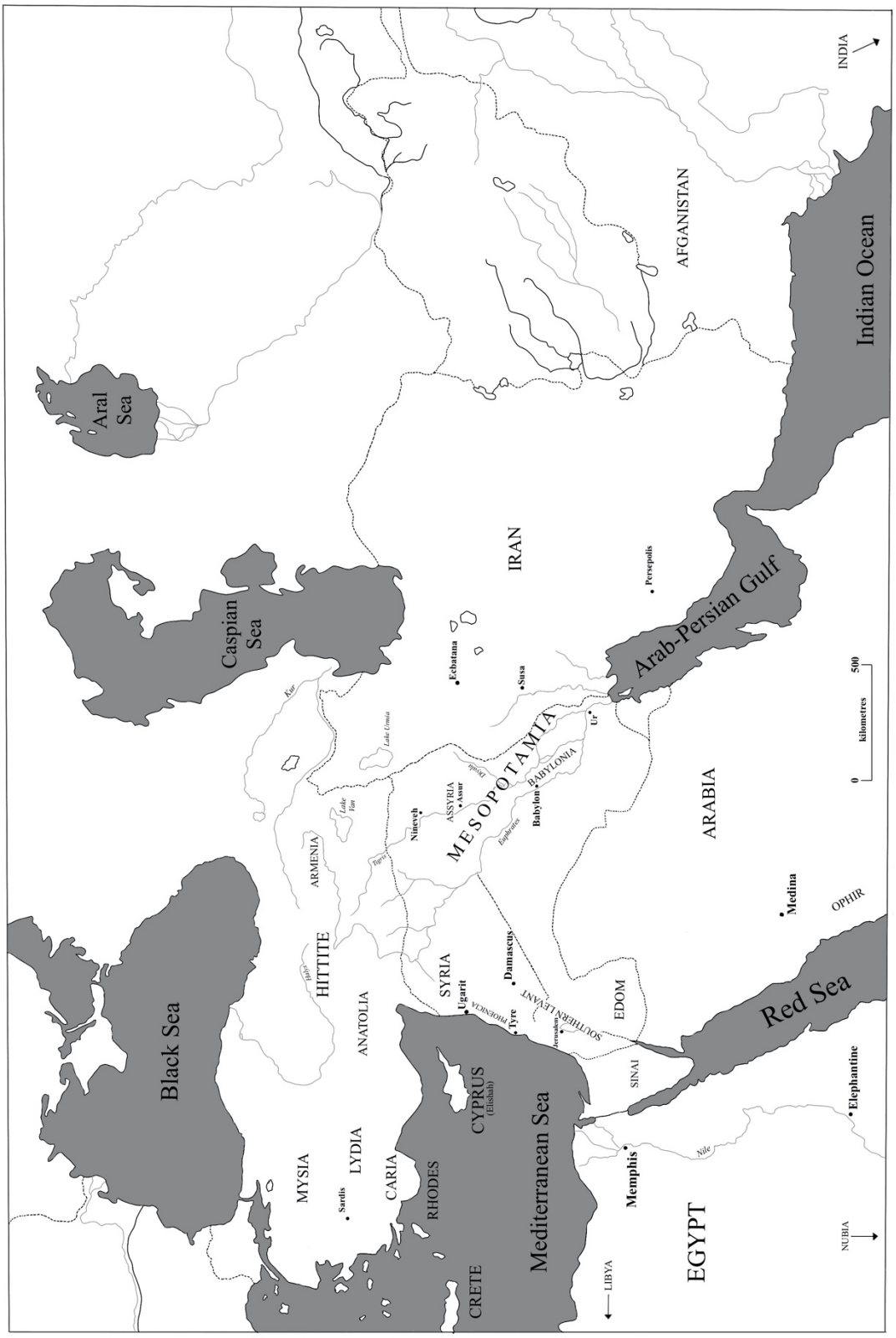
[19] The Hebrew Bible covers a large time period and thus covers varies conquests, wars and dominations from different empires. The biblical texts report that Israel and Judah were defeated, for example, by Philistia (1 Sam 4), Aram (1 Kgs 15:20–21; 22:29–36, 2 Kgs 8:28–29; 10:32–35), Moab (2 Kgs 3:26–28), Edom (2 Kgs 8:20–22; 16:6), Assyria (2 Kgs 17; 18–19), Egypt (1 Kgs 14:25–26; 2 Kgs 23:29–34), Babylon (2 Kgs 24–25), each other (2 Kgs 14:11–14), and were also prone to military coups (1 Kgs 16:9–17; 2 Kgs 9; 11:4–12) and internal struggles (e.g. 2 Sam 18; 1 Kgs 12; 2 Kgs 16:5–10), which are only a handful of examples and do not include other battles and influences written in other ancient texts; C.L. Crouch, *War and Ethics in the Ancient Near East: Military Violence in Light of Cosmology and History*, BZAW 407 (Berlin: de Gruyter, 2009), 119–55. For more on the international relations, boundaries and conquests, see Mario Liverani, *International Relations in the Ancient Near East, 1600–1100 BC* (New York: Palgrave, 2001).

[20] Key descriptions of royal trips and trade include the relationship David has with the Philistines (2 Sam 5:17–25; 8:1) and his foreign conquests (2 Sam 8:1–14). Solomon too, when the Queen of Sheba visits (1 Kgs 10), his interactions with Hiram the king of Tyre (1 Kgs 5; 2 Chr 2), his many marriages to foreign women (1 Kgs 3:1; 14:21; cf. 1 Kgs 11:1); foreign tribute (1 Kgs 4:21), and his ships and caravans travelling to Africa, Arabia and India trading materials. There are also descriptions of military trips to Aram, Moab, and Edom (2 Kgs 3; 8:20, 28; 14:13, 25), and 1 Kgs 20 describes the defeat of the Arameans, where in v.34 Ahab restores towns and establishes trade bazaars in Damascus after he defeats Ben-Hadad.

[21] For example, the discovery of the Armana Letters in 1887 written on cuneiform tablets, describes the exchange between Egypt and the Asiatic kingdoms; the Mari Documents and the Hittite Diplomatic Texts.

In the following, I will discuss colour lexemes grouped together in terms of languages and the broader geographical regions where this language was used. I begin by describing the "everyday" coloured materials indigenous to the southern Levant and Biblical Hebrew. This is an opportunity to present an overall depiction of everyday Israel/Judah – what they saw and wore, what the rural and urban areas they encountered looked like, and so on. The mundane descriptions of this everyday setting create a stark contrast to the narrative when colour is used. The fact that colour terms are predominantly foreign stresses this contrast further and shows the need to delve into the semiotics of the terms in the contexts. The chapter then progresses to analysis of the origins of these foreign colour terms, working geographically outwards from Israel to Aramaic and Akkadian in Mesopotamia, Egyptian in Egypt, and Persian in the Achaemenid Empire, which includes influences from Sanskrit and India. Each section names the colour term, provides a biblical reference and a brief discussion of the context to decide whether there is any evidence of foreign influence, before moving onto the linguistic etymology of the term and how surrounding cultural factors could be a potential explanation of how the material entered Israel/Judah.

Map One: General Map of the Ancient Near East[22]



[22] Adapted from Amélie Kuhrt, *Ancient Near East c. 3000–330BC: Volume 1*, (London: Routledge, 1995), 3.

5.1. Indigenous Colour Terms

The aim of this section is to explore colour terms that originate from Israel/Judah. These are mostly materials used to describe everyday things, such as clothing, nature and buildings. Hartley explains "there are no texts about daily life such as descriptions of clothing worn either by nobles or peasants or about houses and their furnishings," and as such, it is "very probable, then, that some ancient Hebrew colour lexemes remain undiscovered."[23] Those that are in the Hebrew Bible, however, stand in contrast with the brighter, luxuriant colours that entered Israelite culture from afar, strengthening the idea of a larger narrative device in the biblical texts centred around the exoticness of colour terms.

The more popular, common stones used to erect typical buildings, like limestone, chalk or plaster, are examples of materials used every day.[24] Some of these are used in chromatic contexts. For instance, the *hapax legomenon* גר ("chalk, lime, plaster") is part of the crushed stones of the altars in Isaiah 27:9.[25] The Biblical Aramaic, גיר is used for the "whitewashed" surface the hand writes a message on. גיר suggests a plain, clean, smooth, perhaps white surface for the finger to write on. Whitewashing appears in verb and noun form in שִׂיד ("to plaster, paint with lime; plaster, lime") in Deuteronomy 27. Verse 2 reads, והיה ביום אשר תעברו את־הירדן אל־ הארץ אשר־יהוה אלהיך נתן לך והקמת לך אבנים גדלות **ושדת** אתם **בשיד** ("And on the day that you cross over the Jordan to the land that the Lord your God is giving to you, you shall set up large stones and **whitewash** them with **plaster**"). This refers to the action of whitewashing the stones with the material itself. The material was most likely a white alkaline compound consisting of water

[23] Hartley, *Semantics*, 26.
[24] Especially in Judah where most of the bedrock is limestone/chalk.
[25] On the usefulness of *hapax legomena* for deciphering etymologies, see Chaim Cohen, *Biblical Hapax Legomena in the Light of Akkadian and Ugaritic* (Missoula, MT: Scholars Press, 1978); Frederick E. Greenspahn, *Hapax Legomena in Biblical Hebrew: A Study of the Phenomenon and Its Treatment Since Antiquity with Special Reference to Verbal Forms* (Eugene, OR: Wipf and Stock, 2016).

and calcium oxide, derived from limestone. It was readily available in the vicinity of Ebal and Gerizim,[26] and it was occasionally used by wealthier people to plaster the walls of their houses.[27] The material changes the appearance of the stone to a smooth texture and white colour allowing for a clear inscription.[28] The rock in Israel/Judah was predominantly limestone, strengthening the idea that these white materials originated from this region. Both גר and שִׂיד have cognates in other ancient languages,[29] but these cognates are all from Semitic languages; the material was also mined across the ancient Near East. It is possible that the word was borrowed, but the material was also indigenous.

Descriptions of coloured clothing are usually used when the visual appearance of a person strays away from the norm, such as those of high social status (the High Priest, kings, Pharaohs etc.) or their lowly social counterparts among the poor and powerless (prisoners, slaves, refugees etc.). What the biblical texts do not dwell on is the clothing of the non-elite. The most general form of clothing, בגד, covers any kind of garment worn by everyday people, including the rich and the poor, men and women. It is thought to be a plain, long, loose-fitting, wool or cotton garment.[30] Depending on their occupation, this would have been adorned with animal skins or further layers of wool. Nonetheless, other types of garments are thought to be produced in Israel – פִּשְׁתָּה ("flax, linen") and סָדִין ("linen"). The biblical texts, however, do not use these materials chromatically.

[26] Daniel I. Block, "'What Do These Stones Mean?' The Riddle of Deuteronomy 27," *JETS* 56 (2013): 17–41 (26).
[27] Larry G. Herr, "Plaster," *ISBE* 3:883. Like צרעת ("leprosy") can appear on the skin (cf. 4.1.1.).
[28] Brenner, *Colour Terms*, 155; Block, "'What," 27.
[29] As well as Aramaic, גר is attested in Akkadian (*kīru*), Sumerian (g i r), Syriac (*gīr*) and Arabic (*jīr*, *jayyār*); שִׂיד also has verbal and noun forms in other ancient languages: Aramaic (*sūd*, *sîdāʾ*), Syriac (*sayyed*, *saidā*) and Arabic (*šāda*, *šîd*).
[30] It was cheaper and easier to keep clean, King and Stager, *Life*, 265.

From a linguistic point of view, there is not necessarily a set of criteria that makes a Hebrew word indigenous compared to identifying a foreign loanword. However, the use of a word throughout the stages of Biblical Hebrew (i.e., EBH, CBH, LBH) suggests it has a Hebrew etymology and phonology, or it is an early loan.[31] This happens with the root אדם, hence why Brenner categorised the term as a primary colour,[32] and why Gradwohl studied the root at great length.[33] The stability of the root across ancient languages[34] suggests the term originates from a Proto-Semitic *ʔdm*.[35] As Chapter Four demonstrated, there are multiple uses of the root אדם across the biblical texts: אדם covers skin complexion (Gen 25:25; 1 Sam 16:12; 17:42; Song 5:10), blood (2 Kgs 3:22; Isa 63:2), food stuff (Gen 25:25; Prov 23:31), and the skin colour of animals (ram's skins, Exod 25:5; 26:14; 35:7, 23; 36:19; 39:34; a heifer, Num 19:2; horses, Zech 1:8, 8, 6:2). All of these descriptions are everyday matter; the term is used to describe the "red" state of the body (whether human or animal) and "red" food and wine.

These materials fit into the everyday lifestyle of a typical Israelite. אדם is seen and used daily, גר and שׁיד are quarried in the southern Levantine region. These coloured surfaces described in the biblical texts are *not* extraordinary, and they seldom attract further notice or description, except in these instances, chromatic language is noted.

[31] There is nothing to say, however, that the term entered the southern Levant area during the Bronze Age.
[32] Brenner, *Colour Terms*, 49.
[33] Gradwohl, *Die Farben*, 90–5. Brenner, Gradwohl and Hartley disassociated אדם ("red gemstone: ruby, carnelian") from אדם, and for the purposes of my argument to distinguish foreign colour terms with brighter and precious materials from the indigenous and plainer colours, I will also do the same, cf. 6.2.
[34] It is attested across the ancient world, Ugarit, *ʔdm*; Arabic, *ʔadima*; Ethiopian, *ʔadma*; Akkadian, *adāmu*; all meaning "to be red", and then Egyptian, *edmay* ("red linen"); *HALOT* 1:14. Hartley added that Aramaic and Syriac also have אדם as "blood" and "earth" not "red"; Hartley, *Semantics*, 108, 114. Cf. Bulakh, "Basic Color Terms," 197–200.
[35] Bulakh, "Basic Color Terms," 197.

5.2. Foreign Colour Terms

"Foreign" is a heavily loaded term in the context of the Hebrew Bible. Throughout this thesis "foreign" is understood to denote anything from or characteristic of ancient culture, region or language other than Israel/Judah or Biblical Hebrew. As long as a word maintains resistance to grammaticalization within the target language, it remains foreign.[36] Previous scholars have looked at language – specific foreign words,[37] loanwords in particular books of the Hebrew Bible canon,[38] how linguistics can help date Biblical Hebrew texts,[39] and language contact.[40] However, none go outside the field of linguistics to look at the movement of physical materials into the geographical region of Israel/Judah. Most of these things are vessels, instruments, and fabrics that were imported, traded or given as tribute to Israel/Judah. The words for these materials were adopted into the language *because* of the imported material.[41] There is a

[36] Aaron D. Rubin, "Grammaticalization," in *Encyclopedia of Hebrew Language and Linguistics: Volume 2: G-O*, ed. Geoffrey Khan (Leiden: Brill, 2013), 133–5.
[37] Akkadian: Mankowski, *Akkadian Loanwords*; Hayim Tawil, *An Akkadian Lexicon Companion to Biblical Hebrew: Etymological-Semantic and Idiomatic Equivalence with Supplement on Biblical Aramaic* (Jersey City, NJ: KTAV Publishing House, 2009); Edward Lipiński, "Emprunts suméro-akkadiens en hébreu biblique," *ZAH* 1 (1988): 61–73; Sumerian: Landsberger, "Über Farben," 139–73; Aaron D. Rubin, "Sumerian Loanwords," in *Encyclopedia of Hebrew Language and Linguistics: Volume 3: P-Z*, ed. Geoffrey Khan (Leiden: Brill, 2013), 665–6; Egyptian: Lambdin, "Egyptian Loan Words,"145–55; Yoshiyuki Muchiki, *Egyptian Proper Names and Loanwords in North-West Semitic*, SBLDS 173 (Atlanta, GA: Scholars Press, 1999); Aaron D. Rubin "Egyptian Loanwords," in Khan, *Encyclopedia: Volume 1: A-F*, 793–4; A.S. Yahuda, "Hebrew Words of Egyptian Origin," *JBL* 66 (1947): 83–90; Hittite: Rabin, "Hittite Words," 113–39; Persian: Aren Wilson-Wright, "From Persepolis to Jerusalem: A Reevaluation of Old Persian-Hebrew Contact in the Achaemenid Period," *VT* 65 (2015): 152–67; Thamar E. Gindin, "Persian Loanwords," in Khan, *Encyclopedia: Volume 3: P-Z*, 66–70; Avi Hurvitz, *A Concise Lexicon of Late Biblical Hebrew: Linguistic Innovations in the Writings of the Second Temple Period* (Leiden: Brill, 2014); Aramaic: Max Wagner, *Die Lexikalischen und Grammatikalischen Aramaismen im Alttestamentlichen Hebräisch*, BZAW 96 (Berlin: Töpelmann, 1966); Talya Shitrit, "Aramaic Loanwords and Borrowing," in Khan, *Encyclopedia: Volume 1: A-F*; Christian Stadel, "Aramaic Influence on Biblical Hebrew," in Khan, *Encyclopedia: Volume 1: A-F*, 162–5; Arabic: Haseeb Shehadeh, "Arabic Loanwords," in Khan, *Encyclopedia: Volume 1: A-F*, 149–52. Greek: Shai Heijmans, "Greek Loanwords," in Khan, *Encyclopedia: Volume 2: G-O*, 148–51.
[38] Thambyrajah, *Loanwords*; Noonan, "Egyptian Loanwords," 49–67.
[39] Mats Ekshut, "The Importance of Loanwords for Dating Biblical Hebrew Texts," in *Biblical Hebrew: Studies in Chronology and Typology,* ed. Ian Young (New York: T&T Clark, 2003), 8–23; Kevin J. Cathcart, "Loanwords in Biblical Hebrew and the Dating of Biblical Texts," in *Studia Semitica: The Journal of Semitic Studies Jubilee Volume*, ed. Philip S. Alexander et al. (Oxford: Oxford University Press, 2005), 45–57.
[40] Noonan, *Non-Semitic*; Raymond Hickey, ed., *The Handbook of Language Contact* (Oxford: Wiley-Blackwell, 2013); Azzan Yadin-Israel, "Contact of Hebrew with Other Languages," in Khan, *Encyclopedia: Volume 1: A-F*, 597–601; Donald Winford, *An Introduction to Contact Linguistics* (Oxford: Blackwell, 2002); Uriel Weinreich, *Languages in Contact: Findings and Problems* (The Hague: Mouton, 1963).
[41] Ellenbogen, *Foreign*, iv. cf. Warburton, "The Origins," 65–94.

relationship between adoption of the loanword in the recipient language and the trading of materials between two (or more) locations. Whilst these previous studies highlighted the need for words to be studied in their cultural, as well as their textual, context, scholars have failed to exploit the significance of provenance and the origin of these terms within the foreign texts in which they occur. Etymology alone is not sufficient evidence for understanding colour semantics. This section will demonstrate linguistically where a colour word originates with special attention to Akkadian, Aramaic, Egyptian and Persian,[42] in addition to providing a study of material etymology, looking at the corresponding geographical regions. Some terms are evidently exotic but neither the material nor linguistic etymology point to a particular geographical region or language; I have termed these "unprovenanced".

5.2.1. Aramaic, Akkadian and Mesopotamia

Aramaic is a Semitic language originated from the Northwest region alongside Ugaritic and Canaanite, with its earliest inscriptions dated to the early first millennium BCE. Aramaic is usually divided into several dialects, organised according to chronological and geographic principles with similar general structures.[43] It was used as an administrative language in the Neo-Assyrian Empire, and many people on the streets of the Neo-Assyrian and Neo-Babylonian Empires would have had their conversations in Aramaic too. The alphabetic script spread rapidly in the first millennium. Once it was adopted by the Achaemenid Persians (c.550–

[42] Literary sources across the ancient Near East included epics, mythologies, incantations, rituals, hymns, prayers, lamentations, wisdom literature, among other compositions and inscriptions. Non-literary sources also vastly range in documents comprising letters, legal documents, scribal exercises and administrative sources. It is also important to include both literary and non-literary sources to try and get a full picture; Adam E. Miglio, "Introduction to Ancient near Eastern Literature," in *Behind the Scenes of the Old Testament: Cultural, Social, and Historical Contexts*, eds. Jonathan S. Greer, John W. Hilber, and John H. Walton (Grand Rapids, MI: Baker, 2018), 91–6.

[43] Frederick E. Greenspahn, *An Introduction to Aramaic*, corrected 2nd ed. (Atlanta, GA: SBL Press, 2007), 6. At the end of the Bronze Age, the Egyptian and Hittite empires lost grip of the southern Levant. Various ethnic and linguistic groups formed small independent regional states in the area: Aramaic tribes founded the city-states of Damascus, Hamath and Arpad in the 10th–9thC BCE, Christian Stadel, "Old and Imperial Aramaic," in *A Companion to Ancient Near Eastern Languages*, ed. Rebecca Hasselbach-Andee (Hoboken, NJ: Wiley, 2020), 319–37 (320).

330 BCE) as an administration language for their ever-growing empire, the language was used across a territory stretching from Egypt to India.[44] Aramaic is closely related to Hebrew and it features prominently in the Hebrew Bible itself with some passages written entirely in Aramaic (e.g. Ezra 4–7; Daniel 1–7). There are also multiple cognates to Biblical Hebrew terms, some of which are direct borrowings. "Aramaisms" are usually associated with the late biblical period; the term designates non-Hebrew linguistic features, and is evidence of the Aramaic language entering Biblical Hebrew.[45] Avi Hurvitz proposed several factors to consider when studying Aramaisms: literary genre and style, regional-dialectical differences (north/south) and diachronic developments (early/late).[46] These factors coincide with the contact between Arameans and those in Israel/Judah. In addition to the later influences of the Persian Empire, Holger Gzella demonstrated that Aramaic could well have been present in ninth- and eighth-century southern Levant, because of the growing importance of the kingdom of Damascus and its visible impact on written material (the Tell Dan inscription and the Deir ʿAllā plaster text).[47] Both linguistic and material etymologies explains how Aramaic words entered Biblical Hebrew.

[44] It was used similarly by the Assyrians, albeit their empire was smaller (10th–9thC BCE). The diverse Aramean tribes established local principalities in the southern Levant and promoted their vernaculars to official written language by adopting the Phoenician alphabetic script to form Aramaic. The influence of Aram-Damascus meant the vernaculars spread via cultural and economic contact. The mid-9thC inscription from Tell Fekheriye (and subsequently the later 8thC material from Samʾal) describe the political and cultural contacts with the Assyrians; Holger Gzella, *A Cultural History of Aramaic: From the Beginnings to the Advent of Islam* (Leiden: Brill, 2015), 53–123. Arabic eventually replaced Aramaic in the 7thC AD; Kuhrt, *Ancient Near East: Volume 1*, 5, 393. Aramaic has several historical stages and contemporaneous dialects: Old/Early Aramaic (9th–7thC BCE); Official /Imperial Aramaic (8th–4thC BCE); Standard Literary Aramaic (subsisted alongside Official Aramaic emerging in the 7thC BCE); Middle Aramaic (3rdC BCE–3rdC AD); Western Late Aramaic (3rdC AD onwards); Eastern Late Aramaic (represented by the literary languages Syriac, Mandaic, and Jewish Babylonian Aramaic, attested at different times between 3rdC AD and 11thC AD); Neo-Aramaic (present Aramaic language of various regions in the Near East); Lipiński, *Semitic*, 61–9; Greenspahn, *An Introduction*, 6.

[45] On Aramaisms in Biblical Hebrew, see Ekshut, "The Importance," 14–8; Avi Hurvitz, "Hebrew and Aramaic in the Biblical Period: The Problem of 'Aramaisms' in Linguistic Research on the Hebrew Bible," in Young, *Biblical Hebrew*, 24–37.

[46] Hurvitz, "Hebrew and Aramaic," 37.

[47] Gzella, *A Cultural History*, 95–101.

Hebrew חור ("to be white, pale") is also found in Aramaic (*ḥuwwār*), Syriac (*ḥewwār*) and Arabic (*ḥawira*). The diachronic distribution of the word indicates it was influenced by Aramaic. In the biblical texts חור is used for bread (Gen 40:16), faces turning pale (Isa 29:22), linen (Isa 19:9; Est 1:6; 8:15), and possibly for personal names (Num 13:5; 1 Chr 5:14; 9:32).[48] The term is also used in Biblical Aramaic (חור) in Daniel 7:9. Without the root personal names, one would assume it was a late borrowing from Aramaic.[49] Brenner, however, suggested חור was originally in Hebrew vocabulary but was later rejected as an uneconomic doublet of לבן ("white"), leaving traces only in nomenclature and technical terms. The popularity of חור was then renewed by growing Aramaic influence in the Second Temple period, facilitating its linguistic return as a piece of "white" linen.[50] The Aramaic use of *ḥwr* and its derivatives, denote a white, bright material, "something white".[51] Its use in Israel as a "white"-coloured linen suggests it came from the East when the Persians or those returning from exile came to the region, or through trade networks to the east.[52]

Another language in the Mesopotamian region is Akkadian. Akkadian is the earliest attested member of the Semitic family.[53] Akkadian loanwords are thought to have entered Biblical

[48] The relationship and etymological link between חור as a name and חור as a linen cloth can only be surmised. It is possible they are homonymic forms, or some of the people named חור wore and identified with the linen; Brenner, "'White," 41; Almalech, "The Eight," 353–4.
[49] Brenner, "'White," 41; cf. Hartley, *Semantics*, 84; Gradwohl, *Die Farben*, 48–9.
[50] Brenner, "'White," 41; cf. Hartley, *Semantics*, 83.
[51] Beyer, "חור," *TDOT* 16; *DNWSI* 2:357; Michael Sokoloff, *A Dictionary of Jewish Palestinian Aramaic of the Byzantine Period*, 2nd ed. (Ramat Gan: Bar-Ilan University Press, 2002), 189–90; "The Comprehensive Aramaic Lexicon," http://cal.huc.edu.
[52] Trade networks from the southern Levant eastwards are evident from an early, Neo-Assyrian time; Ryan Byrne, "Early Assyrian Contacts with Arabs and the Impact on Levantine Vassal Tribute," *BASOR* 331 (2003): 11–25. In the Persian period, there were more established trade networks which include main routes from Persepolis and Susa, through Babylon and Mesopotamia northwards across Anatolia to Sardis, towards Ecbatana and across northern Iran along the Silk road.
[53] Chronologically: Old Akkadian roughly attests to 2350–2000 BCE followed by the branching off of two major geographical dialects: Assyrian in northern Mesopotamia and Babylonia in the south. The Old Babylonian/Old Assyrian period dates from 2000–1500 BCE, followed by Mid. Babylonian/Assyrian (1500–1000 BCE), Neo Babylonian/Assyrian (1000–600 BCE) and then Late Babylonian (600 BCE–100 CE); John Huehnergard, *A Grammar of Akkadian* (Georgia: Scholars Press, 1997), xxiii-xxvi; Marc Van de Mieroop, *A History of the Ancient Near East: ca. 3000–323 BC* (Oxford: Blackwell Publishing, 2004), 34.

Hebrew during the monarchic or pre-exilic period. Maximilian Ellenbogen's study showed 50% of the foreign terms in the Hebrew Bible come from Akkadian,[54] including a large number of colour terms. Akkadian poses a problem as it is so much better attested than other languages, it was spoken in northern and southern Mesopotamia, which had lines of communication via the Tigris and Euphrates rivers, in addition to land trade routes northwest to Anatolia, west to the Mediterranean Sea, southwest into the southern Levant and Egypt, and south to Arabia.[55] Akkadian was the pre-eminent language of the ancient Near East during the second millennium BCE. Its use and influence stretched far beyond its role as the language of the Assyrian and Babylonian Empires.

The first Akkadian term this section analyses is בוץ ("fine linen"). Although arguments have been made that it originates from Egypt (like שֵׁשׁ, see below),[56] it is generally thought that בוץ has a Semitic origin. This is because of its geographical diffusion; it is found in Akkadian (*būṣu*), Phoenician (*b[ū]ṣ*), and Aramaic (*būṣāʾ*), pointing to an originally northern milieu.[57] In the Hebrew Bible, the term appears in late biblical writings (Ezek 27:16; Esth 1:6; 8:15; 1 Chr 15:27; 2 Chr 2:13; 3:14; 5:12). It also appears in a Canaanite inscription dating back to the 9th century BCE, and a Punic inscription from the 4th/3rd century BCE.[58] This reinforces Mats Eskhult's view that some Akkadian terms entered Biblical Hebrew via Canaanite during the Late Bronze Age.[59] Hurvitz argued, however, these early inscriptions are "not necessarily

[54] If one counts its Sumerian origins too, Ellenbogen, *Foreign*, vii. Sumerian loanwords do not directly influence Hebrew but pass indirectly into Biblical Hebrew via Akkadian or in some cases Aramaic; Rubin, "Sumerian," 665.
[55] Carl G. Rasmussen, "Regions and Routes in the Levant," in Greer, Hilber, and Walton, *Behind the Scenes*, 12–20 (13); cf. Moorey, *Ancient Mesopotamian*, 6–13.
[56] Lambdin, "Egyptian," 147; cf. Almalech, "The Eight," 338–42.
[57] Hurvitz, *A Concise Lexicon*, 50; *idem*., "The Usage," 119; Brenner, "'White," 40; cf. also the later Syriac (*būṣāʾ*) and Arabic (*bwṣ*).
[58] Hurvitz, "The Usage," 119.
[59] Ekshut, "The Importance," 12.

indicative of its linguistic history within Hebrew."[60] This is because, looking at the geographical distribution of the cognates, Akkadian *būṣu* is also new to the linguistic scene when it is attested in Akkadian,[61] suggesting the term entered Akkadian and then Biblical Hebrew soon afterwards. Looking at the term as a material strengthens this; *HALOT* suggests that בוץ was originally imported from Edom (because of the earliest mention of the term in Ezekiel 27:16), before being made in Israel/Judah.[62] Ezekiel 27 describes the forces of the Tyrian navy and trade before Nebuchadnezzar II besieged the city in 585 BCE,[63] and verses 12–24 specifically state the cities Tyre traded in (cf. 6.1.).[64] Edom is also one of these places thought to benefit both politically and economically during the late Iron II, the *pax Assyriaca,* as well as the Arabian trade route via the Beersheba Valley to Gaza through Edom.[65] However, as Lipiński pointed out, the nations mentioned in Ezekiel 27 are merely brokers; commodities passed through Edom from the Tyrian producer to the local consumer and then vice versa.[66] This

[60] Hurvitz, *A Concise Lexicon*, 50–1.
[61] As a fine linen; *būṣu* D, *CAD* B, 350.
[62] *HALOT* 1:115. Aram is generally emended to Edom; Daniel I. Block, *The Book of Ezekiel: Chapters 25–48*, NICOT (Grand Rapids, MI: Eerdmans, 1998), 74.
[63] The oracle is widely identified as a trade list, rather than reflecting Ezekiel's own idiom; Mario Liverani, "The Trade Network of Tyre According to Ezek. 27," in *Ah, Assyria…! Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, eds M. Cogan and I. Eph'al (Jerusalem: Hebrew University Press, 1991), 65–79; I.M. Diakonoff, "The Naval Power and Trade of Tyre," *Israel Exploration Journal* 43 (1992): 168–93; Edward Lipiński, "Products and Brokers of Tyre According to Ezekiel 27," in *Phoenicia and Its Neighbours: Proceedings of the Colloquium Held on the 9th and 10th of December 1983 at the "Vrije Universiteit Brussel," in Cooperation with the "Centrum Voor Myceense En Archaïsch-Griekse Cultuur"*, eds. Eric Gubel and Edward Lipiński (Leuven: Peeters, 1985), 213–20; Walther Zimmerli, *Ezekiel 2*, Hermeneia (Philadelphia, PA: Fortress, 1983), 70–1; Paul M. Joyce, *Ezekiel: A Commentary* (London: T&T Clark, 2007), 176. Cf. Nebuchadnezzar II's interesting relationship with colour, Shiyanthi Thavapalan, "Color and Affect in Nebuchadnezzar II's Babylon," in *A Wonder to Behold: Craftsmanship and the Creation of Babylon's Ishtar Gate*, eds. Anastasia Amrhein, Clare Fitzgerald and Elizabeth Knott (Princeton, NJ: Princeton University Press, 2019), 127–33.
[64] Benjamin J. Noonan, "Did Nehemiah Own Tyrian Goods? Trade between Judea and Phoenicia during the Achaemenid Period," *JBL* 130 (2011): 281–98 (290–4).
[65] On the economic significance of Edom, see Piotr Bienkowski and Eveline van der Steen, "Tribes, Trade, and Towns: A New Framework for the Late Iron Age in Southern Jordan and the Negev," *BASOR* 323 (2001): 21–47; Crouch, *Making*, 41–57; Lily Singer-Avitz, "Beersheba – A Gateway Community in Southern Arabian Long Distance Trade in the Eight Century B.C.E," *TA* 26 (1999): 3–75. For a map of the Assyrian vassals and their annexation of the western areas in the eighth century, see Benedikt Otzen, "Israel under the Assyrians," in *Power and Propaganda: A Symposium on Ancient Empires*, ed. M.T. Larsen (Copenhagen: Akademisk Forlag, 1979) 251–61 (252).
[66] Lipiński, "Products," 218; Fischer ("Women's Dress," 545 fn.16) argued that שֵׁשׁ was exported from Egypt to Tyre (Ezek 27:7), but from Tyre, בוץ was sold (Ezek 27:16).

suggests the material came from further afield than Edom. Taking into account the late nature of בוץ in the biblical texts from a linguistic point of view (i.e., the final form of Ezekiel and the redactions present in verses 12–24 both suggest a post-exilic date), the word probably entered the language from Akkadian as a fine, white linen material that travelled from the East through Edom, most likely because of the later Persian influence.[67] As 5.2.3 will demonstrate further, בוץ is an example of a late Akkadian loan.

A second term thought to derive from Akkadian is ברמים ("multi-coloured cloth"). The term is a *hapax legomenon* appearing among the materials traded with Tyre in Ezekiel 27:24. Linguistically, the term has many Akkadian semantic options: Cohen suggested it comes from *birmu* ("trim woven of several colors"[68]); *HALOT* proposed *barmu* ("speckled, pied, multicolored"[69]) pointing to the Assyrian dialect form *barrumu*;[70] and Stökl acknowledged *barāmu* ("to be multicolored, speckled, pied, variegated"[71]) and its derivatives.[72] Ezekiel 27 describes Tyre trading with numerous lands, including dealing ברמים from the north eastern cities of Mesopotamia – Canneh, Eden, Sheba, Assur and Chilmad (v.23). These were situated at the heart of Mesopotamia with a flourishing trade network during the 8th century BCE.[73] As the term only appears in Ezekiel, there is no evidence to suggest the material actually went into Israel/Judah since Ezekiel was exiled and thought to write his texts in Mesopotamia. The ברמים

[67] *HALOT* 1:115; Hurvitz, *A Concise Lexicon*, 50; cf. Kaufman, *Akkadian*, 45. It might have entered Akkadian later because of the Aramaic influence, thus making it an Aramaic loanword originally; King and Stager, *Life*, 150.
[68] Cohen, *Biblical Hapax Legomena*, 48–9; cf. Block, *Ezekiel: 25–48*, 79. Translation is that of *CAD* B, 257.
[69] *CAD* B, 112.
[70] *HALOT* 1:161–2; cf. Thavapalan, *Meaning*, 79–89.
[71] *CAD* B, 103.
[72] Stökl, "A Youth Without Blemish," 246.
[73] Assur benefited from caravans and merchants as it was strategically located on the crossroads of multiple routes. More specifically, there is evidence that women of Assur wove textiles and men distributed them throughout Anatolia and beyond; Kuhurt, *Ancient Near East: Volume 1*, 88; Van de Mieroop, *History*, 94–9; cf. Daniel C. Snell, "Trade and Commerce (ANE)," *ABD* 6:625–9 (627);

material then was traded with Tyre from Mesopotamia, entering Biblical Hebrew through Akkadian.

כתם (“gold”) seems to be an especially prized form of gold, considering its poetic juxtaposition next to זהב (“gold”) (Job 31:24; Lam 4:1) and פז (“pure gold”) (Isa 13:12).[74] It occurs nine times in the Hebrew Bible.[75] Daniel 10:5 uses “כתם of Uphaz” and three other occurrences refer to “כתם of Ophir” (Ps 45:10; Isa 13:12; Job 28:16). These verses point to a possible geographical location.[76] Ophir is thought to be located southwest of the Arabian Peninsula, near the southern shore of the Red Sea. New Kingdom Egyptian texts mention *ktm.t* (“gold”) that comes from Nubia, also a similar region to Ophir. Lambdin concluded that the “word is foreign to both Hebrew and Egyptian and ultimately Sumerian.”[77] Mankowski follows suit and asserts the derivation of the Akkadian word from Sumerian is “not in doubt”: i.e., Akkadian *kutimmu* comes from the Sumerian k u d i m.[78] He then suggested that early Canaanites used *kutimm* or *kutim*, borrowed from Akkadian, which, in turn, the Egyptians borrow from the early Canaanites as *kutma*.[79] Thambyrajah proposed a simpler explanation, namely that the word derives from a Semitic root, כתם, pertaining to goldsmithing, from which it was loaned into

[74] Interestingly, the origins of פז suggest a Semitic provenance via a connection with *pḏḏ*: Ugaritic *pḏ* (*UT* §19:2024, 467); Arabic *faḏḏa* (“to be alone, separated”). *faḏḏa* semantically developed from “separated” to “unalloyed (metal)” naturally. For how the mining and the delivery of פז and כתם relates to “beauty”, see Loader, “Making Things,” 104.
[75] Isa 13:12; Ps 45:10; Job 28:16, 19; 31:24; Prov 25:12; Song 5:11; Lam 4:1; Dan 10:5.
[76] *BHS* on Dan 10:5 notes אופז (“Uphaz”) has been emended by a few manuscripts to אופיר (“Ophir”).
[77] Lambdin, “Egyptian,” 151–2; cf. Rubin, “Sumerian,” 665. Thambyrajah (*Loanwords*, 467) pointed out that it is a loanword in Egyptian because it is written in group writing; cf. Philip Zhakevich, “The Tools of an Israelite Scribe—A Semantic Study of the Terms Signifying the Tools and Materials of Writing in Biblical Hebrew,” (PhD diss., University of Texas-Austin, 2019).
[78] *CAD* K, 608–9; cf. *PSD* normalises to k u g d i m (“gold or silversmith”), attested in the 3rd millennium BCE. I follow the transcription of Sumerian, which to differentiate it from Akkadian, is written “spaced out”; Kuhrt, *Ancient Near East: Volume 1*, xxvii.
[79] Sumerian ⇒ Akkadian ⇒ early Canaanite ⇒ Egyptian ⇒ Biblical Hebrew; Mankowski, *Akkadian Loanwords*, 77 (the arrows indicate the direction of the loanword, see Mankowski, *Akkadian Loanwords*, 11); contra Noonan who asserted there is “no evidence” of any connection between the Egyptian *ktm.t* and the Akkadian *kutimmu*, Noonan, *Non-Semitic*, 136.

both Egyptian and Sumerian.[80] From a material point of view, Egypt, Nubia and western and southern Arabia were well known for their gold,[81] as were the routes outwards towards the southern Levant.[82] This coincides with the geographical region of Ophir. The linguistic etymology points towards Sumerian via Akkadian, as the Egyptian *ktm.t* appears later, but the production and trade of the material is only recorded from Egypt into Israel/Judah.[83]

According to Mankowski, the vermillion-coloured paint שׁשׁר, attested in Jeremiah 22:14 and Ezekiel 23:14, is a clear loanword from the Akkadian *šaršerru* ("red clay, paste, pigment"[84]) occurring in Neo-Babylonian.[85] Section 4.2.4. already demonstrated that Ezekiel used שׁשׁר to portray the appearance of the Chaldean warriors. Its use in Jeremiah 22:13 relates to wall art and the Assyrian milieu, and indirectly relates to Babylonia as the wider context of the verse describes the contrasting actions of a bad king Jehoiakim (who rebelled against Babylon; vv.13–14, 17) with a good king, Josiah (vv.15–16). For Jeremiah, anybody who decorated their palaces with שׁשׁר will suffer. Depending on its attestation (if any) in other Semitic languages, linguistically, the origins of שׁשׁר primarily point to Akkadian. The material etymology also

[80] Thambyrajah, *Loanwords*, 467; cf. James E. Hoch, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period* (Princeton, NJ: Princeton University Press, 1994), 338.
[81] Moorey, *Ancient Mesopotamian*, 219–20; as well as mining and production, the Armana letters describe inter-dynastic marriages between the Egyptian pharaoh and Asiatic kings. The Egyptian pharaohs received foreign princesses as a mark of prestige but would not reciprocate and send some back. However, the Asiatic kings were happy to receive gold instead which was seen as demeaning to the Egyptian pharaoh: "Is it nice, that you give your daughters away in order to obtain the gift of your neighbours?" *El Armana* 1:61–2.
[82] Thomas Schneider, "Egypt and the Levant," in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.*, eds. Joan Aruz, Kim Benzel, and Jean M. Evans (New York: The Metropolitan Museum of Art, 2008), 61–4; David O'Connor, "Egypt, the Levant, and the Aegean from the Hyksos Period to the Rise of the New Kingdom," in Aruz, Benzel, and Evans, *Beyond Babylon*, 108–12.
[83] The Egyptian
[84] *CAD* Š/2, 124; cf. Thavapalan, *Meaning*, 346–7.
[85] Mankowski, *Akkadian Loanwords*, 149; Thavapalan, *Meaning*, 352–4. Greenberg (*Ezekiel 21–37*, 479) argued for a Neo-Assyrian occurrence. However, Stökl ("A Youth Without Blemish," 243) argued against a Neo-Assyrian occurrence because of pronunciation.

points to Mesopotamia.[86] Cosmetic containers were found at the royal cemetery at Ur from the third millennium, with a red/ochre residue in them.[87]

4.2.5. analysed the gemstones used in the High Priest's breastplate. Two of these, in particular, are thought to originate from Akkadian and Mesopotamia.[88] Firstly, שֹׁבוֹ ("agate") is a term used twice (Exod 28:19; 39:12).[89] שֹׁבוֹ is a loan from the Akkadian *šubû* ("a stone, perhaps agate"[90]), which is in turn a loan from the Sumerian š u b a.[91] Mankowski argued that the Akkadian *û* changes not to the Hebrew equivalent ו but the vocalised וֹ, a phonological characteristic of borrowing.[92] *šubû* was primarily used for jewellery, cylinder seals and signet rings in Mesopotamia.[93] The second gemstone is the more common שֹׁהַם ("onyx?") occurring 11 times in the Hebrew Bible.[94] Genesis 2:12 arguably points to a geographical location as it describes שֹׁהַם as a stream that branches out from the river from Eden called Pishon. However, the identity of the river remains disputed.[95] Linguistically, the gemstone was thought to originate from the Assyrian *sāmu* ("red"[96]) or *sāmtu* ("a red stone").[97] The Assyrian *s* is equivalent to Hebrew *š*, but the Hebrew שֹׁהַם suggests a middle weak root which could lead to the Assyrian *sāmu*. The

[86] See Quillien, "The Economic," 209–13.
[87] Mavis Bimson, "Cosmetic Pigments from the 'Royal Cemetery' at Ur," *Iraq* 42 (198): 75–7; Quick, *Dress*, 153.
[88] Cf. the Mari documents which describe trade between Mari and Hazor, presumably through the land of Yamhad, and in this case, an example of how caravans can be detained to pressure a foreign kingdom to make good on damages, in this case holding silver, gold and "precious stones"; Abraham Malamat, "'Silver, Gold and Precious Stones from Hazor.' Trade and Trouble in a New Mari Document," *JJS* 33 (1982): 71–9; *idem.*, "'Silver, Gold, and Precious Stones from Hazor' in a New Mari Document," *BA* 46 (1983): 169–74.
[89] Mankowski, *Akkadian Loanwords*, 136–7; Rubin, "Sumerian," 665; Noonan, *Non-Semitic*, 206; Thambyrajah, *Loanwords*, 388–9.
[90] *CAD* Š/3, 185.
[91] *PSD* S, 224; Cf. William H.C. Propp, *Exodus 19–40*, AB 2A (New York: Doubleday, 2006), 440.
[92] Mankowski, *Akkadian Loanwords*, 136–7, 162–3; contra Noonan (*Non-Semitic*, 206) who suggested its atypical morphology (i.e., the final וֹ) points to a non-Semitic loanword.
[93] Noonan, *Non-Semitic*, 206; Harrell, Hoffemeier, and Williams, "Hebrew Gemstones," 23–4; Mankowski, *Akkadian Loanwords*, 137; *CAD* Š/3, 185–7.
[94] Gen 2:12; Exod 25:7; 28:9, 20; 35:9, 27; 39:6, 13; Ezek 28:13; Job 28:16; 1 Chr 29:2.
[95] Some point to Egypt rather than Mesopotamia, while others the Kuwait River in Saudi Arabia; King and Stager, *Life*, 170; James A. Sauer, "The Rivers Run Dry: Biblical Story Preserves Historical Memory," *BAR* 22 (1996): 52–7.
[96] *CAD* S, 126–31.
[97] *CAD* S, 121–4. Landsberger, "Über Farben," 150; King and Stager, *Life*, 170 fn.140; *HALOT* 2:1424.

obscure identity of the gemstone, its morphological ambiguity and uncertain material etymology mean that this idea is speculative.

Another precious stone described in the High Priest's breastplate is יַשְׁפֵה ("jasper") (Exod 28:20; 39:13).[98] יַשְׁפֵה has many cognates across the ancient languages: Akkadian, *(y)ašpū*; Syriac, *yašfēlā*; Arabic, *yašb*; Persian, *yašm*; Hittite, *yašpu*. There are multiple reasons to assume the Hebrew יַשְׁפֵה is a loanword from a common Semitic:[99] 1) *(y)ašpū* appears in all periods of the Akkadian language;[100] 2) it retains the initial /*y*/, preserving the older form;[101] and 3) there is an early occurrence of this gemstone where Sargon refers to Zimur as the "jasper mountains", located between Lake Van and Lake Urmia just above Mesopotamia.[102] The latter means the stone could have entered Israel/Judah via the people who came from the region of Lake Van, namely Hurrians and Hittites.[103] This is perhaps strengthened by geological attestations of the stone which also point to the southern Elburz and the central Zagros. There is also a connection between *(y)ašpū* and lapis lazuli; both feature together in jewellery and in the Armana letters adjacent to one another, just as יַשְׁפֵה and סַפִּיר feature together in Exodus 28 and Ezekiel 28.[104]

The etymology of שָׁנִי ("scarlet") is complicated. Brenner argued that in the donor language the word has a much wider range of meanings, but was narrowed in Hebrew to mean an expensive,

[98] Cf. Ezek 28:13.
[99] BDB 448 suggests יַשְׁפֵה is a loanword from Persian; *HALOT* 2:449 suggests that the later attested Persian word is a loan from Arabic, cf. Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 304. Given the criteria mentioned at the beginning of this section, יַשְׁפֵה could also come from Hittite *yašpu*.
[100] *CAD* I/J, 328; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 29–30.
[101] Ellenbogen, *Foreign*, 81.
[102] Zwickel, "Die Edelsteine," 62; Noonan, *Non-Semitic*, 114.
[103] Thambyrajah, *Loanwords*, 374–7; cf. on the contact between the Hurrians and the inhabitants of the southern Levant, see Noonan, *Non-Semitic*, 26–7.
[104] Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 20–2.

dyed material with a red colour.[105] Some assumed שׁני originates from the Arabic *sanā* ("to sparkle"),[106] and others argued for the connection between שׁני and the Akkadian *šinītu* ("soaking, dyeing, dyed textile")[107] or *šanû* ("to rinse, make wet, flood with water").[108] The appearance of the Ugaritic *ṯn* (*KTU* 1.23.22; *UT* §19:2702, 503–4) demonstrates red – maybe purple – dyed garments were also as highly prized there, as they were in Israel some three centuries later. Gradwohl argued the term can also derive from *ṯn* but Hartley suggested the occurrence of *ṯn* indicates that שׁני belongs to the stock of Proto-Semitic lexemes that entered Biblical Hebrew in this pattern.[109] Furthermore, the relationship שׁני has with תולעת ("worm, crimson") is interesting as both are commonly found in the biblical text together, both acting as "red" modifiers in EBH and both originate from the same *kermes* worm (*coccus ilicis*).[110] Brenner argued תולעת is the native term because of its use as a worm as well as a coloured textile.[111] However, although the worm is found in Israel/Judah, it is also found elsewhere in the ancient Near East.[112] There are also many cognates to תולעת, all meaning "worm" and a "red-coloured dye".[113] Both the origins of שׁני and תולעת are likely to from the north or north-eastern region of the southern Levant, but overall from a linguistic and material point of view are ambiguous, and are perhaps not loanwords at all.

Though Mankowski's *Akkadian Loanwords in Biblical Hebrew* is considered exhaustive,[114] he omits חשׁמל ("bronze; amber"), which is arguably also borrowed from Akkadian. The word only

[105] Brenner, *Colour Terms*, 144.
[106] W. Gesenius and F. Buhl, *Hebräische und aramäisches Handwörterbuch über das Alte Testament* (Leipzig: Verlag von F.C.W. Vogel, 1905), 778; Gradwohl, *Die Farben*, 73–4.
[107] *CAD* Š/3, 47;
[108] *CAD* Š/1, 408; Landsberger, "Über Farben," 169; cf. *HALOT* 2:1603.
[109] Hartley*, Semantics*, 192.
[110] *Ibid.*, 192; Gradwohl, *Die Farben*, 73; Brenner, *Colour Terms*, 143.
[111] Brenner, *Colour Terms*, 144.
[112] Jensen argued *kermes* is a red dye obtained from a shield louse, although translates *kermes* as "little worm," Jensen, "Royal Purple," 111; Zwickel, "Färben in der Antike," 43–4.
[113] Akkadian, *tūltu*; Syriac, *taulaʿā*; Ugaritic, *tlʿ*; Mandaean, *tulita* (fem). cf. *HALOT* 2:1701–2.
[114] Many reviewers question the exhaustive nature of the study as Mankowski misses out loanwords, Victor Avigdor Hurowitz, review of *Akkadian Loanwords in Biblical Hebrew,* by Paul. V. Mankowski, *JAOS* 122

appears in relation to Ezekiel's theophany (1:4, 27; 8:2). Most likely, the term relates to the Akkadian *elmēšu/elmeštu* (=*ḫalmašu*), "a precious stone of characteristic sparkle and brilliancy."[115] *elmēšu* corresponds to Sumerian s u d . á g a, which is often used to designate the exceptional brilliance and shimmer of astral bodies, and in some cases as an epithet of gods. *elmēšu* also appears in contexts like the "light of heaven that (shines) like fire" and references to the light of the moon god. The similarity in uses between Akkadian/Sumerian and Hebrew is interesting.[116] These parallels suggest an Akkadian loan or perhaps a common Proto-Semitic ancestor between חשמל and *elmēšu*/*ḫalmašu*.[117] Furthermore, even though it is ambiguous whether the material is identified as an amber stone or metal,[118] amber does not occur naturally in Mesopotamia. The earliest example of amber in the ancient Near East is found in two beads at Assur c.1800 BCE, and is otherwise documented sparsely across Mesopotamia.[119] The material primarily came from the Baltic Sea region (cf. Herodotus, *Hist*. 3.115).[120] Bronze, however, has a long history in ancient Mesopotamia, as a raw material.[121]

To summarise this section, the impact of Aramaic on Biblical Hebrew may centre around the expanding Persian empire. Akkadian, however, appears to influence loanwords and borrowings throughout all stages of the Hebrew language. Some terms are almost definitely borrowed from

(2002): 136–83; David M. Clemens, review of *Akkadian Loanwords in Biblical Hebrew,* by Paul V. Mankowski, *JNES* 62 (2003): 290–4.

[115] *CAD* E, 107–8; cf. *HALOT* 1:362; arguments have also been made for the term to derive from Akkadian *ḫašmānu* and *ešmarû*, from Elamite *ismalu*, or straight from Sumerian h u š . m a l. For a full discussion see D. Bodi, *The Book of Ezekiel and the Poem of Erra*, OBO 104 (Göttingen: Vandenhoeck & Ruprecht, 1991), 82–94; Noonan, *Non-Semitic*, 106 fn.241; Thavapalan, *Meaning*, 269–70.

[116] Bodi, *The Book*, 88–94; Landsberger, "Über Farben," 190–8; Noonan, *Non-Semitic*, 106.

[117] Noonan (*Non-Semitic*, 107) doubts this because Hebrew ח suggests it is equivalent to Akkadian *ḥ*.

[118] Cf. the ambiguity in Greek and Latin: ηλεκτρον/*electrum* both denote a metal alloy of silver and gold *and* an amber stone, commentators favour the latter; Block, *Ezekiel 1–24*, 93.

[119] Moorey, *Ancient Mesopotamian*, 79–81; Anna J. Mukherjee et al. "The Qatna Lion: Scientific Confirmation of Baltic Amber in Late Bronze Age Syria," *Antiquity* 82 (2008): 49–59; *CAD* E, 108.

[120] Michael Heltzer, "On the Origin of the Near Eastern Archaeological Amber," in *Languages and Cultures in Contact: At the Crossroads of Civilizations in the Syro-Mesopotamian Realm: Proceedings of the 42th RAI*, eds. Karel van Lerberghe and Gabriela Voet (Leuven: Peeters, 1999), 169–76; cf. Noonan, *Non-Semitic*, 107.

[121] Moorey, *Ancient Mesopotamian*, 251–4.

Akkadian (ברמים, שֵׁשׁר, שבו and ישפה), whereas others are ambiguous (בוץ, כתם, שהם and חשמל).[122] In most cases the etymology of these words as the physical material strengthens the Aramaic/Akkadian influence. This is because evidence points to the Babylonian, Assyrian or ancient Mesopotamian region as a whole and the cultural influences reflect that. For example, those returning from the Babylonian exile could have brought the root חור into the Israel/Judah region. Similarly, ברמים is recorded as part of the trading materials between ancient Mesopotamian cities and Tyre passing through Israel/Judah (Ezek 27). There are examples, however, where the setting of the passage is in ancient Mesopotamia and thus, there is no direct evidence that the material existed in Israel/Judah itself (e.g. שֵׁשׁר and חשמל). Aside from כתם, where the linguistic etymology suggests a Sumerian via Akkadian origin, but the production and trading of the material is only evidenced from Egypt, the origins of word and physical object correlate.

5.2.2. Persian and the Achaemenid Empire

The beginning of 5.2.1. showed the influence the Persian empire had on the Aramaic language (re)entering Biblical Hebrew.[123] The Persian empire (c.539–333 BCE) saw members of the Achaemenid court, centred in south-eastern Iran, speak Old Persian (a south-western member of the Indo-Aryan family).[124] The court communicated internationally in Aramaic, and adopted indigenous systems of administration too (i.e., Akkadian in Mesopotamia).[125] When Cyrus the Great conquered Babylon in 539 BCE, he permitted those exiled to return to their homeland (Ezra 1:2–4; Neh 1:11; 2 Chr 32:23) and increased the mobility, infrastructure and long-

[122] I refrain from categorising שני and תולעת here as their linguistic etymology is complex and uncertain.
[123] Ekshut, "The Importance," 12; Wilson-Wright, "From Persepolis," 159–63; Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 291; Hurvitz argued for "close contact between Hebrew and Persian – through the mediation of Imperial Aramaic"; Avi Hurvitz, "The Date of the Prose-Tale of Job Linguistically Reconsidered," *HTR* 67 (1974): 17–34 (17).
[124] The beginning of the Achaemenid Empire saw influences of the Old Persian language on Biblical Hebrew (6th–4thC BCE), which was followed by Middle Persian (3rdC BCE–7thC CE).
[125] Wilson-Wright, "From Persepolis," 152–3.

distance travel of the ancient Near East.[126] The ancient Near East was largely isolated from Indic-speaking people until the latter half of the first millennium BCE, when Cyrus the Great and Darius I brought much of the northwest subcontinent of India under Persian rule.[127] Persian itself, is also Indo-European, but the Persians also brought with them loanwords borrowed from Sanskrit, a contemporary of Old Persian. Thus, the influence of the Persian empire in particular is extensive on Biblical Hebrew and Israel/Judah.

The *hapax legomenon* כרכם ("saffron") is considered of foreign origin because of its quadrilateral structure. Most scholars think it is a loan from Sanskrit (*kurkuma*/*kunkuma*, through the Persian *kurkum*), denoting a product imported from India.[128] Alternatively, it could have originated from the earliest attested Semitic cognate to כרכם; the Akkadian *kurkanû* which itself could be a loan from Proto-Sanskrit in the second millennium BCE.[129] However, the phonological properties weaken this case; it would be the only Semitic cognate to change the /n/ to an /m/ (the Syriac *kûrkāmā* does not). Nasals are generally preserved in Akkadian loanwords; the /n/ is expected to carry over into Biblical Hebrew. Regarding the vowel pointing, the Canaanite shift could arguably provide phonological reason for the Akkadian *ā* to become Hebrew ו.[130] Noonan states that all of these possibilities ultimately go back to an ancient culture word (an "etymological orphan"[131]) that "most probably originated in the eastern Mediterranean, where the saffron crocus was first cultivated,"[132] though others suggest the

[126] *Ibid.*, 153; on archaeological findings from Israel/Judah that confirm contact with Persia in the 6th–4thC BCE, see Noonan, *Non-Semitic*, 29.
[127] Noonan, *Non-Semitic*, 28.
[128] Brenner, *Colour Terms*, 153; Ellenbogen, *Foreign*, 93; Noonan, *Non-Semitic*, 133; Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 282.
[129] Athalya Brenner, "Aromatics and Perfumes in the Song of Songs," *JSOT* 25 (1983): 75–81 (76–7).
[130] Ellenbogen, *Foreign*, 93; Mankowski, *Akkadian Loanwords*, 158–60; F.W. Dobbs-Allsopp, "Late Linguistic Features in the Song of Songs," in Hagedorn, *Perspectives*, 27–77 (66).
[131] A phrase coined by Mankowski (*Akkadian Loanwords*, 7–8). *Kulturwörter* ("culture word") refers to a class of words for which no linguistic provenance can be assigned, but they may syntactically or semantically relate.
[132] Noonan, *Non-Semitic*, 133.

saffron plant (*crocus sativus*) originated in Egypt and was then grown in Syria and Israel/Judah.[133] Zohary relates כרכם to an Indian turmeric plant (*curcuma longa*) native to southern Asia and the East Indies, then sold as *kurkum* in the Arabian markets.[134] Furthermore, its only occurrence in the biblical texts supports the Indian origin. Song of Songs 4:13–14 conveys the exotic fragrances used in the "woman as a garden" metaphor (cf. 4.2.4.), כרכם is juxtaposed by רמון ("pomegranates") and כפר ("henna") among other "chief spices" (v.14). This collection of fragrant materials are known to be exotic, originating from India, Arabia and Egypt and then imported to the southern Levant.[135] Either way, though the evidence is slender, the linguistics point to an Indian origin and the material evidence for כרכם probably does the same.

Another *hapax legomenon* with a quadrilateral structure like כרכם but without evidence of Semitic etymology is כרפס ("fine linen"). This foreign loan is only found in Esther 1:6 and came

[133] Exum, *Song*, 178; Gradwohl, *Die Farben*, 80.
[134] Zohary, *Plants*, 207.
[135] Cf. Song 3:6; *HALOT* 2:1242; 1:494; 2:1113; 1:723–24; 2:1114; 1:518; 1:629–30; 1:19 for descriptions of these spices as they appear in 4:13–14. רמון ("pomegranates"): there is evidence of using pomegranates as a dyeing agent already in Babylonia c.2000 BCE and later in Egypt c.1500 BCE; Gradwohl, *Die Farben*, 80; Zvi C. Koren, "Historico-Chemical Analysis of Plant Dyestuffs Used in Textiles from Ancient Israel," *Archaeological Chemistry* 21 (1996): 269–310. כפר ("henna"): the use of henna as a dye dates back to Egypt c.2500 BCE, as a plant from which the dye is extracted from, the geographical associations suggest northern Africa; Noonan, *Non-Semitic*, 128–9. קנה, the spice reed or sweet cane according to Pliny, was best grown in Syria (Pliny, *Nat.* 12.48.104) but was also imported "from a distant land" (Jer 6:20) or "from Arabia" (Ezek 27:19–22). קנמון ("cinnamon"): thought to be a rare and expensive import from the inner bark of a tree native to Sri Lanka; Exum, *Song*, 179. No Indian etymology is available for קנמון although the product itself did come from southern India, so it might have originated in Malaya and then moved through India outwards, Brenner, "Aromatics," 78; Young, Rezetko and Ehrensvärd, *Linguistic Dating* 282. לבונה ("frankincense") is the resin of a tree that grows in Southern Arabia and Northern Somalia and is harvested by making cuts into the bark of the tree releasing the sap. This sap is milky white in colour (which relates its Hebrew name לבונה to the root לבן "white"), which when solidified is yellow/green resin that can be scraped off the tree, W.W. Müller, "Frankincense," *AB* 2:854; Bulakh, "Basic Color Terms," 187–9; Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 282. מר ("myrrh") is also an aromatic gum that comes from the cracks in the bark of a tree (*Balsamodendron myrrha*) found in Arabia, Abyssinia, and India, Exum, *Song*, 111–2. אהלות ("aloes") can be identified with eaglewood/argarwood (*Aquilaria agallocha*), a tree native to northern India. It has a lingering smell of which relates to cedar and sandalwood, with subtle hints of roses and balsam, used as incense and perfume; Eric Hansen, "The Hidden History of Scented Wood," *Aramco World* 51 (2000): 3–11. However Brenner and Pope suggest an East Asian origin (Brenner, "Aromatics," 77; Pope, *Song*, 494), and Noonan points to a Horn of Africa or Arabia Felix area as the aloe plant is native to this region and the term would have been borrowed along with the plant; Noonan, *Non-Semitic*, 43–4.

to Biblical Hebrew via Sanskrit (*karpāsa*, "cotton plant").[136] The material was first brought to the ancient Near East from India by Sennacherib.[137] The Greek καρπασος ("cotton") is also a direct loan from Indic.[138] The cotton plant is native to India.[139] The Persian setting of Esther, plus its focus on the Jewish community in Persia, along with its intimate knowledge of Persian customs and its total lack of interest in Judean life, indicates that Esther was composed in the eastern diaspora.[140] This, in addition to the limited use of the term, suggests that כרפס as a material did not enter Israel and the southern Levant at all.[141]

ספיר ("sapphire, lapis lazuli") appears in the Hebrew Bible eleven times.[142] ספיר is almost certainly not derived from the Hebrew root ספר, "to count," but is of a foreign origin.[143] Most conclude it is a Sanskrit loanword from *saniprīya* ("slowly-moving Saturn"),[144] even though there are terms equivalent to in other ancient languages: Syriac (*sappīla*), Ethiopic (*sanpīr*), and Aramaic (*sampōrinōn*).[145] Noonan proposed an old West Semitic root *špr* ("to shine, be fair")[146] and suggested Hebrew speakers were influenced by a change from ס to שׂ.[147] Thambyrajah

[136] *HALOT* 1:500; Ellenbogen, *Foreign*, 94; King and Stager, *Life*, 152; Ekshut, "The Importance," 12; Thambyrajah, *Loanwords*, 151–2; Almalech, "The Eight," 354–5.
[137] Brenner, "'White'," 41–2; cf. E.J.W. Barber, *Prehistoric Textiles: The Development of Cloth in the Neolithic and Bronze Ages* (Princeton, NJ: Princeton University Press, 1991), 32–3; Daniel Zohary, Maria Hopf and Ehud Weiss, *Domestication of Plants in the Old World*, 4th ed. (New York: Oxford University Press, 2012), 109.
[138] Noonan, *Non-Semitic*, 134.
[139] Two Old World species of cotton plants (*G. herbaceum* and *G. arboreum*) have been found in the Indus Valley of Pakistan (Zohary, *Plants*, 79). Further archaeological evidence shows cotton fibres and seeds in the Indian subcontinent Harappan sites; Zohary, Hopf and Weiss, *Domestication*, 108.
[140] Carol Meyers, "Esther," in Barton and Muddiman, *The Oxford Bible Commentary*, 324–30 (325).
[141] This is reinforced by the lack of כרפס in later forms of Hebrew: in Mishnaic Hebrew, כרפס is replaced with צמר גפן; see Brenner, *Colour Terms*, 196.
[142] Exod 24:10; 28:18; 39:11; Isa 54:11; Ezek 1:26; 10:1; 28:13; Song 5:14; Job 28:6, 16; Lam 4:7.
[143] Zwickel, "Die Edelsteine," 57; Ellenbogen, *Foreign*, 125.
[144] *Ibid.*, 125; *HALOT* 1:764; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 18–9. The Sanskrit argument could be considered problematic because *saniprīya* occurs only in late, post-Vedic lexical texts.
[145] It is also thought to be linked to Ugaritic (*iqnu*) and Akkadian (*uqnû*) because, as mentioned above, *iqnu* relates to תכלת due to its purple colour, the same arguably applies to the lapis lazuli colour of ספיר, cf. *CAD* U/W, 195–202; *HALOT* 1:764; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 19. Baumann (*Schatzkammern*, 91–2, 463–9) stressed that like gold and silver, the pairing of turquoise (*mfkʾt*) and lapis lazuli in ancient Egypt is equally as prominent. This could influence the pairing of נפך and ספיר in the same line of gemstones on the High Priest's breastplate (Exod 28:18).
[146] *HALOT* 2:1635; *DCH* 8:545.
[147] Noonan, *Non-Semitic*, 346. For evidence of this in Neo-Assyrian pronunciation, see Mankowski, *Akkadian*, 155–7.

argued that *špr* derived from some unknown Semitic language which inherited שׁ as ס and retained פ as פ.[148] The material etymology can point to the north-eastern Afghanistan Badakhshan.[149] The material also passes through Assur; in the Late Bronze Age, lapis lazuli is mentioned in the lists of tribute to Thutmose III, who reigned 1479–1426 BCE.[150] Ultimately, evidence points to an Indian origin for the word and an Afghanistan provenance for the material, both of which travelled west towards Mesopotamia and then infiltrated Biblical Hebrew, either directly or through other Semitic languages.

Another example is the "bright, rich red" dye כרמל ("crimson") that is a rare postexilic synonym (although not precisely equivalent) to תולעת שני, found in 2 Chronicles 2:6, 13; 3:14. The lack of Semitic cognates or Hebrew etymology, plus its quadrilateral structure, suggest a foreign origin. כרמל is argued to originate from Sanskrit through Persian (Sanskrit *kṛ́mi/krímі*, "an insect, a worm, silkworm," and *kṛimija,* "[red dye] produced by an insect;" Persian *kirm*, "worm," and *kirm pila*, "silkworm").[151] Linguistically, the shift from *kṛ́mi/krímі/kṛimija* to *kirm/kirm pila* and then to כרמל can be explained via a phonetic change when historically tracing the term, though perhaps this is not too convincing. Chronicles, a key LBH text, contains surprisingly few Persian loanwords.[152] Nevertheless, the influence of Imperial Aramaic on the Persian empire is evident, particularly in the context of 2 Chronicles 2, where Solomon speaks to an Aramaic king using many Aramaisms.[153] As a material, both the Sanskrit and the Persian

[148] Thambyrajah, *Loanwords*, 382–3.
[149] Liverani, "The Late Bronze Age," 163; cf. A. Lucas and J.R. Harris, *Ancient Egyptian Materials and Industries* (New York: Dover, 2012), 398–400.
[150] Later, king Burra Buriyash of Babylon gave the Egyptian court of Akhenaten and Tutankhamun (1353–27 BCE) gifts of lapis lazuli; Winter, "The Aesthetic Value,"; cf. Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 20; William L. Moran, *The Armarna Letters* (Baltimore, MD: Johns Hopkins University Press, 1992), 13, 16–19.
[151] Noonan, *Non-Semitic*, 134; Sylvia Powels, "Indische Lehnwörter in der Bibel," *ZAH* 5 (1992): 186–200 (196–7); Robert Rezetko, "'Late' Common Nouns in the Book of Chronicles," in Rezetko, Lim, and Aucker *Reflection and Refraction*, 379–417 (397–8).
[152] Rezekto, "'Late'," 396–7; Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 291–2.
[153] Eskhault ("The Importance," 13) suggested the Chronicler chose to employ new words rather than use the obvious synonyms making it entirely anachronistic. For instance, in 2 Chr 2:6 the Chronicler uses ארגון, which is

terms relate to the *kermes* worm that the dye was obtained from. Indian texts describe the squeezing of said insect/worm to produce a liquid which became a fast dye of excellent colour (cf. *Sthānanga Sūtra* 4.2.293).[154] Considering the strong geographic connection, the etymology is difficult but just about possible to connect כרמל to India and was brought into Biblical Hebrew and the southern Levant under Persian influence.

These four examples of Persian loanwords, all originally used in Sanskrit and Indic materials, travelled westwards before entering Biblical Hebrew. Apart from the ambiguity of כרכם, the others (כרפס, ספיר and כרמל) entered via eastern Semitic and occur as materials in ancient Mesopotamia. כרפס only appears in Esther, thought to be set in Susa, and ספיר is influenced by a Semitic root or Aramaisms. The lateness of their uses reflects the idea that the expanding Persian Empire influenced the terms on the Hebrew lexicon. The evidence of physical contact between those in Israel/Judah and those from Persia and the expanding Achaemenid empire means these materials entered into the southern Levant.

5.2.3. Egyptian and Ancient Egypt

Some coloured materials are regularly thought to be of Egyptian provenance. Egyptian is one of the world's oldest attested languages, belonging to the Afro-Asiatic, or the Hamito-Semitic family.[155] It is assumed most borrowings from the Egyptian language were pre-exilic.[156] The

its Aramaic form with the ו instead of ארגמן with מ. In the same verse there is כרמל not שני. For the influence of Persian prior to the Persian conquest and the possible contact it had with pre-exilic Hebrew, see Young and Rezetko, *Linguistic*, 296–8.

[154] Noonan, *Non-Semitic*, 134.

[155] Like with the stages of Aramaic and Akkadian, the Egyptian language evolved over the years through the different dynasties: Old Egyptian (3000–2200 BCE), Middle Egyptian (2200–1600BCE), Late Egyptian (1500–700 BCE), Demotic (700–400 BCE) and Coptic (2ndC CE onwards) words, each with their own sub-stages. The first two phases of the language can be grouped together (Old and Middle) and so can the final three due to significant grammatical differences; this causes two major historical phases within the language known as Egyptian I and Egyptian II; James P. Allen, *The Ancient Egyptian Language: An Historical Study* (New York: Cambridge University Press, 2013), 2–8; Kuhrt, *Ancient Near East: Volume 1*, 124; Lipiński, *Semitic*, 25–9.

[156] Ellenbogen, *Foreign*, viii.

ancient Israelites frequently interacted with Egyptian speakers due to their close geographical proximity, trade, and multiple military campaigns.[157] Egyptian influence on the southern Levant begins as early as the Chalcolithic period. In the Early Bronze Age, Egyptian texts testify to military campaigns and Egyptian pottery also appears in the southern Levant.[158] Egypt withdrew from the southern Levant by the end of the Late Bronze Age; during the Iron Age I-II there was an international political vacuum where both Egypt and Assyria were weak and not particularly involved in the southern Levant. However, when the Assyrians took control of the southern Levant in the long 7th century BCE, they also looked to Egypt for economic advantage. It was not until 656/655 BCE, when Psammetichus I stopped paying tribute to the Assyrians and increased Egypt's involvement in the southern Levant, that one sees the influence of the Egyptians in Syria-Palestine during the Iron Age II.[159] Psammetichus I opened Egypt up to Mediterranean sea trade, and then took control of the routes through the Negev;[160] Egypt flourished in trading a variety of materials via both land and sea.

I begin with שִׁישׁ/שֵׁשׁ ("marble"), which occurs three times in the Hebrew Bible (Song 5:15; Esth 1:6; 1 Chr 29:2).[161] The term has no Semitic etymology, and other than Aramaic, no related forms. Noonan points to the Egyptian masculine form *šs* ("Egyptian alabaster, travertine"), which appears in Egyptian texts as early as the Old Kingdom. The sibilant assimilation from *šs*

[157] Noonan, *Non-Semitic*, 21–3.
[158] *Ibid.*, 22.
[159] Crouch, *Making*, 20; Bernd U. Schipper, "Egypt and the Kingdom of Judah under Josiah and Jehoiakim," *TA* 37 (2010): 200–26 (202); Kuhrt, *Ancient Near East: Volume 2,* 636–41.
[160] Kuhrt, *Ancient Near East: Volume 2*, 641; Schipper, "Egypt," 209–10.
[161] *HALOT* 2:1483, 1663; *DCH* 8:572. Its late occurrences pose the question as to why the authors did not see fit to use an Aramaic or Persian influenced synonym. However, context is key: Esth 1:6 describes the lavish materials used to decorate the Persian court, and this lavishness is exemplified by שֵׁשׁ pillars, the material of which was imported from Egypt; 1 Chr 29:2 sees David address the people asking them to contribute towards the cost of the construction of Solomon's temple; David himself donates materials, שִׁישׁ being one of them. Though the time of David and Solomon was not a time of strong diplomatic ties and cultural influence between Egypt and Israel/Judah, both had encounters with Egyptians showing David's awareness of their native opulent materials; Paul S. Ash, *David, Solomon and Egypt: A Reassessment* (Sheffield: Sheffield Academic Press, 1999), 104–21.

to שֵׁשׁ probably occurred subsequent to borrowing.[162] The etymology of the material itself also reflects Egypt; Egypt's sources of alabaster or travertine could be mined at Hatnub or Wadi Gerrawi and were used for pavements, lining temple walls, rooms and statues, similar to its uses in the Hebrew Bible.[163] Interestingly, both the Hebrew and Egyptian lexemes have a double meaning, separated only by vowel pointing (and the י in 1 Chr 29:2): שֵׁישׁ/שֵׁשׁ and *šs* ("marble") verses שֵׁשׁ and *šs* ("fine linen"). That this also came from Egypt is undisputed and all of its occurrences in the biblical text relate to Egypt; for example, Pharaoh clothed Joseph in שֵׁשׁ (Gen 41:42) and Ezekiel 27:7 says "of embroidered שֵׁשׁ from Egypt was your sail." The clear Egyptian associations of the term in the Hebrew Bible and its appearance in Middle Kingdom texts as *šs* ("linen") affirm the Egyptian origin.[164] Both of these materials (marble and linen) would have been traded between Egypt and Israel/Judah, whether indirectly via Tyre on the sea or on land through the Philistine cities.[165] Furthermore, Egypt was well known for its distinctive production of linen in antiquity (cf. Herodotus, *Hist*. 2.105), so it seems likely that Biblical Hebrew adopted the commodity and the term.

Another type of white linen used in the Hebrew Bible is בַּד, occurring over twenty times in the biblical texts, usually in regard to priestly/cultic garments and the garments of angelic messengers. The lack of Semitic cognates and etymology suggests the term is from a foreign source. *HALOT* compares it with the Arabic *batt*.[166] Noonan suggested an Egyptian provenance,

[162] Noonan, *Non-Semitic*, 210; cf. Rubin, "Egyptian," 794.
[163] Noonan, *Non-Semitic*, 210.
[164] Lambdin, "Egyptian," 155; *HALOT* 2:1663; Noonan, "Egyptian," 52; *idem*., *Non-Semitic*, 215; Ellenbogen, *Foreign*, 164; Brenner, "'White," 40; Young, Rezetko and Ehrensvärd, *Linguistic Dating*, 284; Fischer, "Women's Dress," 545; Liverani, "The Late Bronze Age," 162.
[165] See the Report of Wenamun (c.1100 BCE) who was sent from Thebes to Byblos to buy timber; Kuhrt, *Ancient Near East: Volume 1*, 187; *idem*., *Ancient Near East: Volume 2*, 407. Geographically, Phoenicia was located between Egypt and Assyria, so when these two Empires were battling throughout the ancient Near East, Phoenicia and the rest of the southern Levant were in the middle and primarily acted as buffer states; Crouch, *Making*, 11–17.
[166] *HALOT* 1:109.

relating it to the Middle Kingdom *bḏꜣ* ("a linen fabric utilized for a splint") in the plural form, which refers to linen in the Coffin Texts.[167] The borrowing must have taken place no earlier than the late second millennium BCE to account for the equivalence between the Egyptian *ḏ* and the Hebrew ד. The *ꜣ* is often elided in the final position.[168] The Egyptian origin seems more likely, especially as a synonym for שֵׁשׁ,[169] and because the material etymology follows a southwards route. Flax cultivation and linen production were essential to the Egyptian economy; turning flax into linen was a painstaking and laborious process, making it an expensive material.[170]

Also thought to be of Egyptian origin are a few of the precious stones mentioned in the Hebrew Bible. Brenner argued that the *hapax legomenon* בהט ("porphyry") in Esther 1:6 relates to the Egyptian root *ʾbhtj*, which is a costly stone from Nubia.[171] Lambdin and Muchiki argue that Egyptian *t* is not equivalent to Hebrew ט in בהט.[172] Allen, however, states the *t* corresponds to the both ת and ט in cognates and other renditions.[173] Linguistically, then, it seems likely that the term then passed from Egyptian to Hebrew.[174] Like other *hapax legomena* in Esther, there is no

[167] Noonan, *Non-Semitic* 73.
[168] *Ibid.*, 73; Thambyrajah, *Loanwords*, 356; cf. Brenner, "'White," 40.
[169] Noonan, "Egyptian," 52; Brenner, "'White," 40. Others say linen (as a general material) was imported from Egypt but was later produced in Israel: בד was thought to be the "ordinary linen" whereas שֵׁשׁ was "fine linen," Barber, *Prehistoric Textiles*, 11–4; King and Stager, *Life*, 147-52; Hurvitz, "The Usage," 119–20.
[170] Christina Riggs, *Unwrapping Ancient Egypt* (London: Bloomsbury, 2014), 114.
[171] Brenner, *Colour Terms*, 167. Nubia provided much of the labour needs for the Egyptian mining and quarrying enterprises and Egypt very much exploited Nubia for its resources: minerals, animals, vegetables and humans as slaves. This exploitation was the primary motive for Egyptian imperial expansion, see Kuhrt, *Ancient Near East: Volume 1*, 121, 168–71, 329–30; Robert Morkot, "Egypt and Nubia," in *Empires: Perspectives from Archaeology and History*, eds. Susan E. Alcock, Terence N. D'Altroy, Kathleen D. Morrison, and Carla M. Sinopoli (New York: Cambridge University Press, 2001), 227–51 (241–3).
[172] Lambdin, "Egyptian," 147; Muchiki, *Egyptian*, 240–1; contra Noonan who suggested this is an "overly rigid view of linguistic borrowing" that disregards the complexity of the process, Noonan, *Non-Semitic*, 75.
[173] Allen, *The Ancient Egyptian*, 48.
[174] Cf. Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 42.

further evidence the material was actually traded into Israel or Judah; Esther is set in the Persian period and its focus around the city of Susa suggests a Persian locus of composition.[175]

There are also a few Egyptian loanwords used in the construction of the High Priest's breastplate in Exodus 28.[176] אחלמה ("amethyst") (Exod 28:17–20; 39:10–13) arguably comes from the Egyptian root *ḫnm.t* and is a red precious stone from Nubia used as the material for scarabs and amulet. לשם ("jacinth, carnelian") equates to the Egypt root *nšm.t*, "a white-blue felspar."[177] Both terms are thought to have undergone a linguistical shift from Egyptian *n* to the Hebrew ל.[178] However, a closer look at Egyptian reveals the letter *n* has not necessarily undergone a phonetic shift but is a regular graphic symbol for phonetic *l* from the very beginning, thus explaining the apparent transition.[179] It also appears both terms were borrowed at a time when the *t* in the final unaccented position was no longer pronounced; this phenomenon came to an end at the beginning of the New Kingdom (c.1500 BCE).[180] Furthermore, because אחלמה ends with a final ה, it reflects a form of Egyptian after the *t* was dropped and before the -*a* shifted to -*i*, dating to the later part of the second millennium BCE.[181] As materials, there is evidence for the existence of red precious gemstones in the Eastern Desert of Egypt, particularly the Northwest and West of Quseir.[182] With such a possible early linguistic borrowing, evidence of materials entering the southern Levant during the Bronze Age is limited; it is assumed by the early contact the Egyptians had with those who lived in the

[175] This idea could mean that Esther is historically accurate, which is not a popular opinion. Equally it could mean that Esther tells of local colour and reveals certain things about the Persian court that can be verified against other ancient writers, like Herodotus; Levenson, *Esther*, 23–7.
[176] Rubin, "Egyptian," 794; cf. Noonan, "Egyptian."
[177] Schenkel, "Color Terms," 215, translates it as a "green feldspar."
[178] Noonan, *Non-Semitic*, 49; Muchiki, *Egyptian*, 248; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 22.
[179] See Allen, *The Ancient Egyptian*, 39; Hoch, *Semitic*, 435; Ellenbogen, *Foreign*, 22.
[180] Ellenbogen, *Foreign*, 97. Ellenbogen also said the "prosthetic" א at the beginning of אחלמה is not a problem since there are numerous examples of it dropping out, Ellenbogen, *Foreign*, 22.
[181] Noonan, "Egyptian," 64.
[182] Noonan, *Non-Semitic*, 22, 49–50.

Israel/Judah region. Furthermore, there are trade routes from Egypt to the area during this time, but no sign the gemstones in particular were moved.[183]

Another precious stone, נפך ("turquoise?") (Exod 28:18; 39:11; Ezek 27:16; 28:13) has no cognates and no Semitic etymology, making it a foreign term. Most agree it comes from the New Kingdom Egyptian word *mfk.t* (Old Kingdom *mfkꜣt*; Middle Kingdom *mfƨkt*) all meaning "turquoise, malachite."[184] This is based on an understanding that the Hebrew נ has replaced the Egyptian *m*, a change that occurred in some environments in Late Egyptian.[185] Like the other segolate noun לשׁם mentioned above, נפך must have been borrowed later than אחלמה, sometime after the final *-at* of the Egyptian feminine ending was lost.[186] The dating of this borrowing is unclear because the vowel that marked the feminine ending was lost through anaptyxis (*lašma*/*lašmi* > *lešem*; *nufka*/*nufki* > *nofek*).[187] In material terms, the Old Kingdom conducted military campaigns to source copper and turquoise from the southern Sinai; there is evidence of turquoise mines in the Sinai Peninsula from the Early Dynastic period through to the end of the Middle Kingdom.[188] Noonan provides evidence for lengthy contact between Canaanites who mined in these areas and Egyptian-speaking people, suggesting that the term and the material were transferred to Biblical Hebrew and brought into the southern Levant by Canaanites.[189] Literary evidence reinforces this; Ezekiel 27:16 describes merchants trading in

[183] For more on Egypt's domination of the area during the Bronze Age, both politically and economically, see Kuhrt, *Ancient Near East*, 317–29; Emanuel Pfoh, *Syria-Palestine in the Late Bronze Age: An Anthropology of Politics and Power* (New York: Routledge, 2016), 19–27.
[184] Lambdin, "Egyptian," 152; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 17; Rubin, "Egyptian," 794; Noonan, "Egyptian," 52; *idem*., *Non-Semitic*, 153; Meschel, "The Gems," 244. On the phonological changes in Egyptian (i.e., the lenition of *ꜣ*), see Allen, *Ancient Egyptian*, 39–41; Schenkel, "Color Terms," 219. On the identification of *mfkꜣt* see Baumann who argues it a "grünliches Mineral" coloured "Grün hin" ("rich green") and possibly has a relationship with copper, Baumann, *Schatzkammern*, 414–23.
[185] Noonan, *Non-Semitic*, 153; Thambyrajah, *Loanwords*, 379.
[186] By the Amarna period (c.1300 BCE), the final *-t* appears as *-a* rather than *-at*, Noonan, "Egyptian," 64.
[187] Noonan, "Egyptian," 64.
[188] Donald B. Redford, *Egypt, Canaan, and Israel in Ancient Times* (Princeton, NJ: Princeton University Press, 1992), 34; Baumann, *Schatzkammern*, 416, 419–22; cf. copper in Sinai, Aruz, Benzel and Evans, *Beyond Babylon*, xxii.
[189] Noonan, *Non-Semitic*, 154.

the material from Edom. As with the fine linen בוץ, Edom was the broker, importing from Egypt in the south and then moving נפך along the King's Highway trade route across the Jordan into Judah.[190] Linguistically, נפך is thought to have a relationship with פוך ("eye make-up, antimony"), which is also of Egyptian origin (*fkꜣt*; *fꜣkt*; *fk.t*). Here there is a late sound shift, where in the Egyptian *e* changes to *u*. פוך is found in 2 Kings 9:30 and Jeremiah 4:30 and does not appear to have cognates in other ancient languages. Noonan argued for a Mediterranean origin of some kind for פוך, closely related to the Greek φυκος and the Latin *focus* ("seaweed, red algae"). These are also used as a cosmetic (e.g. Theocritus, *Id.* 15.16). He also addresses 2 Kings 9:30, arguing that Jezebel's royal Phoenician descent (1 Kgs 16:31) would have given her access to luxury products acquired through Phoenician trade. This in turn, provides a plausible opportunity to borrow a Mediterranean word.[191] Baumann also points out to green and black eyeshadow found in Egyptian treasuries of late temples. These eyeshadows are in separate bags and are given by the king to a deity. The green make-up is on the right eye and represents the sun, whereas the black is on the left eye and represents the moon. He compares the colour of the green eyeshadow to minerals also found in the treasuries, including *mfkꜣt* ("turquoise"), which was seen as the colour of the sky during the day.[192]

Another gemstone that features in the breastplate of the High Priest's regalia is פטדה, a chrysolite or topaz stone (Exod 28:17; 39:10; cf. Ezek 28:13; Job 28:19). With no cognates in any Semitic language,[193] nor evidence of an original Hebrew phonetic structure,[194] פטדה is probably foreign, with proposed Sanskrit or Egyptian provenance. The former associates פטדה

[190] Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 17; Lucas and Harris, *Ancient Egyptian Materials*, 400. Geographically though, this route seems unlikely as one would have to cross the Jordan twice.
[191] Noonan, *Non-Semitic*, 170–1.
[192] Baumann, *Schatzkammern*, 716–7, "Zumindest Türkis wurde wahrscheinlich als Farbe des Taghimmels angesehen."
[193] Dictionaries offer no etymological options, see *HALOT* 2:924.
[194] The occurrence of /ט/ and /ד/ in one word is extremely rare; Ellenbogen, *Foreign*, 133 fn.1.; Noonan, *Non-Semitic*, 174.

with the Sanskrit *pita* ("yellow") and the compound *pita-sphaṭika* ("yellow crystal"). The etymology of *pita* is obscure, however, suggesting that is also foreign to Sanskrit.[195] Noonan also shuts down the Sanskrit option on the basis that *pita* only references a gemstone in late Sanskrit texts and that, most problematically, the Sanskrit option does not "adequately" account for the *d* in פטדה.[196] An Egyptian provenance would mean פטדה corresponds to *pꜣ-ddt*, with *pꜣ* (the definite article) referring to -פ and *didi* or *ddi* (the mineral) referring to -טדה.[197] Job 28:19 strengthens this, referring to "the פטדה of כוּשׁ". Kush, usually translated as Ethiopia, is a geographical location south of Egypt; it is documented thirty times in the Hebrew Bible as a land and a people and is present in multiple Egyptian texts. Materially, the idea that פטדה came up from the south through the southern Levant is more likely than from the India region that used Sanskrit, considering the transportation and trade of other precious stones. Again, the evidence is limited.[198]

Therefore, to conclude, the influence the Egyptians had on the southern Levant was constant, even when they retreated and battled with Assyria. The colour words in 5.2.3. come from Egyptian and can be categorized into fine linens (שֵׁשׁ and בד) and precious stones (שֵׁישׁ, בהט, אחלמה, לֶשֶׁם, נפך and פטדה). Both types of materials are known to originate in Egypt and to move towards the southern Levant as economic exchange or as materials used in military campaigns. Linguistic and material etymologies complement each other, strengthening the Egyptian provenance of these colours. This in turn, enriches our understanding of the biblical text.

[195] Ellenbogen, *Foreign*, 133; Brenner, *Colour Terms*, 166; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 12.
[196] Noonan, *Non-Semitic*, 174–5 fn.482.
[197] Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 12–13; Noonan, *Non-Semitic*, 174–5.
[198] There is no convincing explanation for the original form or source of this word, Thambyrajah, *Loanwords*, 385–6.

5.2.4. "Unprovenanced"

I end this chapter with a list of materials that are etymologically unknown; neither their linguistic history nor their material origin can be confirmed. Nevertheless, what evidence we do have *always* points to a foreign origin.

Firstly, רקמה ("coloured, embroidered fabric") derives linguistically from the root רקם ("weaver of coloured cloth").[199] רקמה implies multiple colours and also has multiple cognates: Punic (*rqm*, "to make fabric out of various colours"); Ethiopic (*raqma*, "to weave with bright colours, do needle-point embroidery"); Arabic (*raqama*, "to do needle-point embroidery"); Aramaic (*rəqāmāʾ*/*riqmāʾ*, "colourful fabric"; *riqmətāʾ*, "a coloured spot"); Syriac (*tarqəmātā*, "freckles"). Ezekiel 27 mentions Egypt and Edom produced embroidered and interweaving threads of various colours in various patterns, namely רקמה (vv.7, 16). Ezekiel's reference to this coloured fabric as a sail reflects an awareness of common Egyptian custom of using patterned linen fabric for the sails of their vessels, serving as a decorative and distinguishable ensign.[200] Sisera's mother speculates the reason for him being late home is because he is collecting his booty of war, רקמה materials (Judges 5:30). רקמה as a material was evidently something of prestige and opulence across the ancient Near East. However, the overall provenance of the term, both linguistically and as a material, remains unconfirmed.

The etymology of some of the precious stones used in the making of the High Priest's regalia (cf. 4.2.5.) is also ambiguous. For instance, ברקת is predominantly thought of as a "green" stone, translated as "emerald," "peridot," "malachite," "green beryl," or "carbuncle", amongst others. It is found in Exodus 28:17; 39:10; Ezekiel 28:13. Whichever perspective a scholar takes in

[199] *HALOT* 2:1290–1.
[200] Block, *Ezekiel 25–48*, 60–1.

trying to decipher its nature – linguistical, archaeological, or the idea that certain stones are too hard to be engraved with tribal names and therefore cannot be a plausible option – the conclusions are all different. Nevertheless, it is certain this stone is imported to the southern Levant and of foreign provenance, because of its quadrilateral structure. Linguistically ברקת has multiple cognates: Aramaic (*bāriqtāʾ*), Akkadian (*barraqtu*), Syriac (*marakata*), Arabic (*zumurrud*), and Sanskrit (*marakata*)[201] It is also found in Egyptian, in the Sehel Famine inscription (IV.16.) as *brg.t*.[202] Zwickel argued that the ancient understanding of "emerald" included a variety of green stones: from the actual emerald stone to malachite, turquoise, green jasper and green porphyry, all clustered together under the "emerald" category;[203] Pliny the Elder distinguishes at least twelve types of emeralds (*Nat.* 37.16.65–19.75). These "emeralds" and other green stone possibilities evidently come from across the ancient world. Given the broad linguistic options, the geological issues, and the lack of evidence towards a Hebrew etymology, the provenance of this term is foreign but a specific whereabouts is uncertain.[204]

Interestingly, one of the most commonly used materials is also thought to be a foreign import. ברזל ("iron") occurs 76 times in Biblical Hebrew and 20 times in Biblical Aramaic פרזל ("iron").[205] It was thought to enter Biblical Hebrew from Akkadian,[206] but Mankowksi demonstrated how its cognates in Punic and Phoenician (*brzl*) and Ugaritic (*brḏl)*, compared to

[201] *HALOT* 1:162; Brenner argued ברקת is a loan from Sanskrit, Brenner, *Colour Terms*, 166; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 15, suggested there is also an Egyptian equivalent in the root ברק meaning "to sparkle" and "to glitter, glisten, to flash".
[202] Thambyrajah, *Loanwords*, 357–8.
[203] Zwickel, "Die Edelsteine," 54–5.
[204] In the Ptolemaic period, ברקת shifts to ברגת as the word for a "green gemstone" denoting either emerald or peridot, both of which are mined in 3rd and 1stC BCE Egypt respectively; Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 15–6; Thambyrajah, *Loanwords*, 361. Equally, green jasper was the signature gemstone of the Iron Age Phoenicians so could have been imported from there; J. Boardman, "Scarabs and Seals: Greek, Punic and Related Types," in *Tharros: A Catalogue of Material in the British Museum from Phoenician and Other Tombs at Tharros, Sardinia*, ed. R.D. Barnett and C. Mendleson (London: British Museum, 1987), 99–100; Meschel, "The Gems," 243.
[205] Dan 2:33, 33, 34, 35, 40, 40, 41, 41, 41, 42, 43, 43, 45; 4:12, 20; 5:4, 23; 7:7, 19.
[206] Ellenbogen, *Foreign*, 52–3.

Aramaic (*przlʾ*) and Akkadian (*parzillu*), suggests it did not derive from the latter.[207] The initial *p* of the Akkadian is characteristic of "eastern" cuneiform spellings, whereas the "western" has *b*.[208] Gordon said regarding the Ugaritic *brḏl*, "the atypical correspondents of the *b* and *ḏ* are due to non-Semitic origin".[209] Furthermore, Thambyrajah quoted Noonan's PhD thesis, where he hypothesised a Luwian origin from *parzilli*.[210] Noonan demonstrated few opportunities for direct contact between the Luwians (inhabited primarily in western Anatolia) and the Levant.[211] One of which is the deportation of Luwian-speaking people from Neo-Hittite states to the southern Levant after 722 BCE. However, tracing the material is difficult, particularly as in the early first millennium BCE, both meteoric and smelted iron became a widespread commodity in the ancient Near East. Archaeological evidence and textual inventories, however, suggest iron objects were produced in Anatolia and northern Syria.[212] Although this reinforces the linguistic Luwian idea, there is much uncertainty surrounding the origins of ברזל.

תרשׁישׁ ("beryl; yellow jasper") is another gemstone used in the making of the High Priest's breastplate in Exodus 28, though again its identity is ambiguous.[213] תרשׁישׁ is not only a precious stone but also used in personal names and as a geographical place name and territory.[214] Tarshish, or Tartessos, is thought to be situated in the southern region of Spain; thus, the stone

[207] Mankowski, *Akkadian Loanwords*, 49–50.
[208] Pinḥas Artzi, "On the Cuneiform Background of the Northwest-Semitic Form of the Word *brḏl*, *b*(*a*)*rz*(*e*)*l*, 'iron'," *JANES* 28 (1969): 268–70.
[209] *UT* §19:511, 376.
[210] Thambyrajah, *Loanwords*, 235–6; Benjamin Noonan, "Foreign Loanwords and Kulturwörter in Northwest Semitic (1400-600 B.C.E.): Linguistic and Cultural Contact in Light of Terminology for Realia," (PhD diss., Hebrew Union College, 2012), 56–8.
[211] Noonan, *Non-Semitic*, 26.
[212] Jean-Claude Margueron, "Ugarit: Gateway to the Mediterranean," in Aruz, Benzel, and Evans, *Beyond Babylon*, 251–60 (243); cf. the Hittite diplomatic texts where the king of Hatti said iron was not available to produce, "In regard to the good iron about which you wrote to me – good iron is not available in my armoury in the city of Kizzuwatna. I have written that it is a bad time for making iron…"; Gary Beckman, *Hittite Diplomatic Texts* (Atlanta, GA: Scholars Press, 1996), 140.
[213] The precious stone appears in Exod 28:20; 39:13; Ezek 1:16; 10:9; 28:13; Song 5:14; Dan 10:6. For a list of the possible identifications, see D.W. Baker, "Tarshish," *ABD* 6:332–3; Lipiński, "תרשׁישׁ," *TDOT* 15:790–3 (790–1).
[214] On תרשׁישׁ as a precious stone and a personal name, see Lipiński, "תרשׁישׁ," 15:793.

could plausibly be identified with the Spanish topaz.[215] The village of Tartessos was a Phoenician foundation near the mouth of the Guadalquivir so could have easily entered Biblical Hebrew via the trading ties Israel/Judah had with the cities of Phoenicia (cf. Ezek 27:12).[216] Assuming an understanding of תַּרְשִׁישׁ as a yellow-green stone,[217] Spain was well known for deposits of chrysolite in antiquity (Pliny, *Nat.* 37.43.127).[218] However, because the identity of the term is so unclear, as is the contact with the geographical location of Tarshish/Tartessos, the provenance of the term can be disputed.

The precise nature of the material פְּנִינִים ("coral, rubies") is likewise still debated, and unfortunately the etymology is similarly difficult. פְּנִינִים appears only in the plural form, in Job 28:18, Proverbs 3:15; 8:11; 20:15; 31:10; and Lamentations 4:7, denoting a precious material. Other ancient versions do not help with its identity: Classical Greek texts use πινε/πινα/πιννα ("corals")[219] or πινικον/πινινος ("pearl/mother of pearl");[220] Pliny also uses πινα/πιννα, but as "pearls" (*Nat.* 9.56.12). However, there is little evidence for the use of pearls prior to the Greco-Roman period and there is little archaeological evidence for Late Bronze and Iron Ages use of red coral.[221] "Rubies" is the most common translation for its occurrence in Lamentations 4:7, but even they, as a precious gemstone, were unknown in the ancient Near East prior to the Roman era.[222] Hartley suggested that the coast surrounding the Sinai Peninsula was particularly noted for its beautiful corals;[223] this could mean that red corals were imported up into Israel. Noonan points to Akkadian *pinnu* ("a bead-like object"), Ugaritic *bnn* ("an object made of

[215] *HALOT* 2:1797–8.
[216] Zwickel, "Die Edelsteine," 61.
[217] For evidence as to why this is the most likely assumption to make, see Thambyrajah, *Loanwords*, 249 fn.705.
[218] Noonan, *Non-Semitic*, 229.
[219] *HALOT* 2:946.
[220] Harrell, Hoffmeier and Williams, "Hebrew Gemstones," 35.
[221] *Ibid.*, 35.
[222] Joseph E. Jensen, "Ruby," *EDB* 1143.
[223] Hartley, *The Book of Job*, 380.

precious material"), or New Kingdom Egyptian *bnn* ("pearl, bead"). His vague conclusion reflects the uncertain etymology of the term: "the various spellings of these various forms points to an ancient culture word denoting pearls as well as other round precious objects, such as beads. Where it came from remains uncertain, but it most probably came from the region where the product originated."[224]

The preceding "unprovenanced" colour terms are unequivocally foreign to Biblical Hebrew and Israel/Judah, but their origins are debated and obscure, due to limited usage and limited evidence. Nevertheless, the fact that they are foreign reinforces this chapter's arguments and paves the way for nuances in interpretation.

5.3. Summary

The range of materials discussed in Chapter Four, alongside the inspiration of Herodotus travelling and using foreign words in his works, invited a discussion on the provenance of colour words in Biblical Hebrew. Understanding the larger context behind each of these materials will enrich our reading of these biblical passages in which they appear. It will help us comprehend how colour is used and its purpose, as well as why a particular coloured material was chosen.

This chapter demonstrated a stark contrast between the foreign colour words and those considered indigenous to Biblical Hebrew and Israel/Judah. The latter were few and tended to be plainer, everyday materials, such as chalk and limestone. Additionally, this section also showed the long-term significance of אדם ("red"), which appears throughout the corpus. Its use

[224] Noonan, *Non-Semitic*, 179.

suggests it is a colour developed from materials and then applied over time towards other "red" things. Its frequent and consistent use that categorise it an indigenous colour word.

The majority of colour terms are foreign in the Hebrew Bible. As "foreign" is a heavily loaded term, it poses the questions as to why a culture should or could not develop terms for the primary colours as they seem relevant to them, and why colour terms were not developed or inherited from Proto-Semitic, is it a question of attestation? Yet, the origins of most colour words can be traced from a linguistic point of view and as a physical material. For the most part, these origins align. Akkadian, Aramaic, Egyptian and Persian (Sanskrit), in particular, used these terms as indicators of luxuriousness and expense, and Biblical Hebrew adopts the same semantics. The impact of culture on the infiltration of some of these words into Hebrew is also interesting. Empires, such as Neo-Assyrian, Neo-Babylonian, Egyptian and Persian, as well as modes of contact, including trade, the exile and return, the *pax Assyriaca* and royal campaigns, all affect the words entering Biblical Hebrew. With the example of שֵׁשׁ and בּוּץ, the exile plays a key part in בּוּץ replacing שֵׁשׁ and is reinforced geographically, where the latter originates from the south in Egypt and the from the Mesopotamian area. The linguistic change can reflect the increased post-exilic contact with the Northeast and the languages spoken there.[225]

Notably, all the Egyptian loanwords are linens or gemstones. In fact, *all* twelve gemstones in the High Priest's breastplate originate from outside of the southern Levant, from all corners of the ancient world. This appears to display the wealth, social status and control of those who wear the regalia, and each gemstone has a further, interesting effect that not only represents one of the twelve tribes but also a foreign land further afield.

[225] Hurvitz, "The Usage," 120.

Overall, this exercise enriches a reading of the text; coloured materials and words are not necessarily indigenous, and the foreignness of the terms is part of a discourse within the texts. There is now a need to look at contexts (why colour, and particularly exotic colour, is used in a particular situation) and semiotics (what these uses tell us about how the authors understood colour) of the coloured materials used throughout the Hebrew Bible.

6. Colour, Calamity and Cosmos

> And I looked, and behold, a stormy wind came from the north: a great cloud, an engulfing fire and brightness was around it, and from the midst of the fire, something like עין החשמל.
>
> Ezekiel 1:4

The final step in understanding how the Hebrew Bible portrays colour perception is to take the ideas of materiality and provenance, and explore the use and associations of chromatic categories to the biblical texts themselves. Exodus 28:4–5 and Ezekiel 27:7 opened Chapters Four and Five of this thesis with the intention to remind the reader of the significance of PURPLE (analysed in Chapter Three) and provide an example of "Materiality" and "Provenance" of colour in the biblical texts; the discussion of Lamentations 4 in 4.1. showed colour used in relation to the body and the surrounding environment. All three of these texts – Exodus 28, Ezekiel 27 and Lamentations 4 – use multiple colour words. This chapter answers questions about the larger purpose behind colour in these passages. It will show how colour in the Hebrew Bible relates to wider cultural themes, like the body, beauty, space and place, gender, power, social status and wealth (cf. 1.1.5.).

Most fundamentally, this chapter emphasises the role of YHWH in descriptions of chromatic language. This idea is evident in the Greco-Roman world, where discussions of colour in

Homeric epic are associated with morality[1] and divine influence on human decision-making.[2] Herodotus uses the way people respond to divine signs to demonstrate both the character of specific individuals and human nature more broadly. For example, in the case of Croesus and his campaign to Libya and Ethiopia, Croesus made lavish offerings to Delphi of πορφυρεα cloaks and χρυσεας goblets, among other luxury materials for divine protection (1.50.1).[3]

When colour is used to describe theophanies of YHWH, the authors resort to similes and earthly materials to try and describe the experience. Ezekiel 1:4, above, highlights this language when it introduces brightness into the descriptions. As in Homer and Herodotus, luminosity and radiance influence colour categories in the Hebrew Bible. This chapter then, looks closely into the use of colour in Ezekiel 27, Exodus 28, Lamentations 4 and Ezekiel 1, undertaking an in-depth analysis creating a deeper understanding of colour in the Hebrew Bible.

6.1. Ezekiel 27

> הונך ועזבוניך מערבך מלחיך וחבליך מחזקי בדקך וערבי מערבך וכל־אנשי מלחמתך אשר־בך ובכל־
> קהלך אשר בתוכך יפלו בלב ימים ביום מפלתך
>
> Your riches, your wares, your merchandise, your mariners, your pilots, your caulkers and your dealers, and all of your warriors who are with you, with all the

[1] For example, the relationship between Achilles and morality centres on the bloody death of Patroclus at Apollo's and Hector's hands (*Il.* 16.793–17.197). It radically redirects Achilles' views as he sees Patroclus's killing is partly his fault since he assigned him to that mission; this realisation ultimately changes the plot of the *Iliad*. Similarly, in the *Odyssey*, Odysseus faces an internal battle about killing the suitors in a case of kill or be killed (*Od.* 22.61–7), see Naoko Yamagata, *Homeric Morality* (Leiden: Brill, 1994), 30–1, 40–60; Stuart E. Lawrence, "Moral Decisions in Homer," *Scholia: Studies in Classical Antiquity* 12 (2003): 27–33; James A. Arieti, "Achilles' Guilt," *CJ* 80 (1985): 193–203; Lateiner, "The *Iliad*," 26–7; Silk, "The *Odyssey*," 36–8.
[2] For instance, Odysseus' vengeance against the suitors is entirely in charge of Athena, and Zeus washes his hands of human suffering and takes a detached attitude towards human affairs (*Od.* 1.32–43); Yamagata, *Homeric*, 32–9; cf. Emily Kearns, "The Gods in the Homeric Epics," in Fowler, *The Cambridge Companion to Homer*, 59–73.
[3] Jennifer T. Roberts, *Herodotus: A Very Short Introduction* (Oxford: Oxford University Press, 2011), 77; cf. Marincola, "Herodotus," 19–20.

> company that is in your midst, will fall into the heart of the seas on the day of your ruin.
>
> Ezekiel 27:27

The previous chapter gave us an insight into the foreign provenance of colour terms, exploring what makes them foreign and the relationship between linguistic and material etymology. Many of these terms are used in Ezekiel 27. Ezekiel 27 is the central chapter (bookmarked by 26 and 28) on the oracles against the Phoenician city, Tyre.[4] Tyre was the immensely prosperous centre of multiple trade networks, on land and especially on the sea. Chapter 27 is an extended allegory describing Tyre as a magnificent ship, made and loaded with materials from across the world – only to be shipwrecked on the seas (v.27). It is a lamentation over the beauty and grandeur of Tyre, showcasing the fine materials and different lands it interacted with, plus the skilled workers, soldiers and rowers who came to work there, all of which disappears with its sudden downfall.[5] This section will show how what initially reads as a list of stylistically monotonous materials, in fact uses these coloured materials to form micro-cosmic imagery around the complete ship of Tyre. Ezekiel 27 is a chapter that evokes ekphrasis, relies on the rhetoric of enargia, and manifests beauty. Though the ship may be complete with parts, these materials are foreign to Tyre itself, leaving the city vulnerable and open. The foreignness of these luxurious materials, therefore, are rooted in Tyre's downfall. Contra to Exodus 28, which also imports foreign materials (as 6.2. will demonstrate), Tyre as a vessel is a symbol of blasphemy and idolatry; the heavy ship in a storm screams disaster. This section will explore the beauty, power and wealth behind the ship metaphor and, ultimately, how this leads to Tyre's downfall.

[4] Ezekiel had a special interest in Tyre: he devotes more time to the city than any other nations addressed in chapter 25.
[5] Zimmerli, *Ezekiel 2*, 53.

Many previous scholars have studied the ship metaphor in Ezekiel 27. Carol A. Newsom analyses the rhetoric of metaphor in Ezekiel, using his oracles against Tyre as a case study. She explores how the ship imagery gives Ezekiel's audience and readers an insight into the reality of Tyre's situation.[6] Ian Douglas Wilson studies the metaphorical symbolism of the sinking ship, situating the chapter in fourth century BCE Judah, and arguing that the symbolism contributes to a late Persian understanding of Tyre and Jerusalem.[7] John B. Geyer examines Ezekiel 27 in the context of mythology, studying the cosmic significance and creation mythology surrounding the ship, comparing it with the Admuat (an Egyptian myth that describes the cosmic ship known as the Bar of Re).[8] Jacqueline Vayntrub argues the chapter makes use of a poetic technique that she terms "totalizing description" in the portrayal of the ship, where a "head-to-toe" description has the rhetorical aim of demonstrating perfection and beauty (cf. Song 4:1–7).[9] Vayntrub contends Tyre is not just a ship, but analogous to a human body, since the technique "totalizing description"/*waṣf* elsewhere in biblical literature is primarily used to describe bodies (cf. body descriptions in Song of Songs).[10] This section explores the use of coloured materials within Ezekiel 27: colour is foundational to arguments on the power of metaphor, its symbolism, and the cosmic, mythological, and bodily understanding of the ship, as the ship is "dressed" with fabrics and adornments, just like a human body.

---

[6] Carol A. Newsom, "A Maker of Metaphors – Ezekiel's Oracles Against Tyre," *Interpretation* 38 (1984): 151–64.

[7] Ian Douglas Wilson, "Tyre, A Ship: The Metaphorical World of Ezekiel 27 in Ancient Judah," *ZAW* 125 (2013): 249–62.

[8] John B. Geyer, "Mythology and Culture in the Oracles against the Nations," *VT* 36 (1986): 126–45; *idem.*, "Ezekiel 27 and the Cosmic Ship," in *Among the Prophets: Language, Image and Structure in the Prophetic Writings*, eds. Philip R. Davies and David J.A. Clines, JSOTSup 144 (Sheffield: Sheffield Academic Press, 1993), 105–26; cf. C.L. Crouch, "Ezekiel's Oracles against the Nations in Light of a Royal Ideology of Warfare," *JBL* 130 (2011): 473–92.

[9] Jacqueline Vayntrub, "Tyre's Glory and Demise: Totalizing Description in Ezekiel 27," *CBQ* 28 (2020): 214–36. "Totalizing description" is similar to a *waṣf*, which is a term borrowed from Arabic love poetry to describe the lover's body from head to toe in Song of Songs, cf. Akiko Motoyoshi Sumi, *Description in Classical Arabic Poetry: Waṣf, Ekphrasis, and Interarts Theory* (Leiden: Brill, 2004). Vayntrub moves away from this categorisation in favour of texts that aim at encompassing the entirety of an entity.

[10] Vayntrub, "Tyre's Glory," 225–6.

6.1.1. The Splendour of the Ship

Ezekiel 27 can be divided into two key sections:

1. Tyre's beauty (vv.3b–25)
2. Tyre's destruction (vv.26–36)[11]

The first part praises the ship's perfection and material success. As the previous chapter demonstrated, Tyre plays a significant role in economic exchange. Using a ship, which is an instrument of trade, to describe Tyre is apt as geographically the city was on the coast. The use of colour in this chapter is central to the power of the metaphor and its symbolism. For instance, verses 5–11 describe the luxurious materials that clearly exaggerate the make up of the ship. Verses 6–7 say, אלונים מבשׁן עשׂו משׁוטיך קרשׁך עשׂו־שׁן בת־אשׁרים מאיי כתים: **שׁשׁ־ברקמה** ממצרים היה מפרשׂך להיות לך לנס **תכלת וארגמן** מאיי אלישׁה היה מכסך ("Of oaks from Bashan they made your oars, the company of the Ashurites made your planks with ivory from the coasts of Kittim. Of **fine embroidered linen** from Egypt was spread to be your sail, **blue-purple** and **red-purple** from the coasts of Elishah was what covered you"). The materials of the ships' structure come from beyond Tyre. The colours are part of Tyre's design, but ultimately, they are foreign to the city. Even the dyes thought to be indigenous to Phoenicia (תכלת and ארגמן; cf. 3.1.), originate from outside Tyre, according to Ezekiel.[12] Their exotic origins only emphasises Tyre's power and wealth.

Furthermore, there is a triadic relationship in this chapter between power, wealth and social status. Tyre's status in the ancient world is exemplified by verses 11–25, which describes the luxurious materials Tyre traded with from cities across the ancient world. Verses 23–24c say,

[11] Greenberg, *Ezekiel 21–37*, 565; Vayntrub, "Tyre's Glory," 230.
[12] This is unusual; Greenberg, *Ezekiel 21–37*, 550; Margaret S. Odell, *Ezekiel* (Macon, GA: Smyth & Helwys, 2005), 351.

חרן וכנה ועדן רכלי שׁבא אשׁור כלמד רכלתך: המה רכליך במכללים בגלומי **תכלת ורקמה** ובגנזי **ברמים** ("Haran, Canneh and Eden, the merchants of Sheba, Assur and Chilmad traded with you. They traded with you in choice garments,[13] in clothes of **blue-purple** and **embroidery**, and in chests of **multi-coloured linen**…"). The *inclusio* of opening this section with Tyre's first trading partner, Tarshish, and then closing it with descriptions of Tarshish ships carrying Tyre's excess away, is especially interesting.[14] Tarshish appears in biblical texts as the faraway location reachable by the Mediterranean Sea,[15] and Tarsus on the south coast of the Iberian Peninsula was possibly one of Tyre's earliest and most important colonies. This reinforces the power behind Tyre's trade and reputation in the ancient world securing access to goods of far greater value.[16]

The materials are used display luxuriousness and are examples of the products involved in Tyrian trade; the ship metaphor describes how trade built the city of Tyre.[17] These materials were also highly prized as building materials, implying Tyre was built to last.[18] Scholars are quick to point out that most of the materials in the design of the ship and traded by the ship resemble materials used in Tabernacle.[19] תכלת, ארגמן and שׁשׁ appear in the construction of the Tabernacle,[20] and the verbal form of רקמה (רקם) appears in the making of the screen for the

[13] מכלל ("choice garments") comes from the Akkadian *makla*/*ulu* a type of garment associated with "perfection"; Greenberg, *Ezekiel 21–37*, 560; Block, *Ezekiel 25–48*, 79; Hartley*, Semantics*, 188.
[14] Vayntrub connects the Tarshish ships with Jonah, who journeys away from his prophetic assignment toward Tarshish, thus bringing about a storm on the ship, Vayntrub, "Tyre's Glory," 220. There are other literary traditions of Tarshish shipwrecks (Ps 48:8; Isa 23; 1 Kgs 22:49; 2 Chr 20:36–7), thus is a narrative device that alludes to Tyre's downfall, James Arthur Durlesser, *The Metaphorical Narratives in the Book of Ezekiel* (Lewiston: Mellen, 2006), 160–1.
[15] Greenberg, *Ezekiel 21–37*, 553; Block, *Ezekiel 25–48*, 71–2.
[16] Liverani suggests that the raw materials come into Tyre and finished products flow out, thus exchanging exotic goods for general wealth, Liverani, "The Trade Network," 77–9.
[17] Newsom, "A Maker," 157; cf. Vayntrub, "Tyre's Glory," 234.
[18] Odell, *Ezekiel*, 347.
[19] Wilson, "Tyre," 255–8; Lee, *Mapping*, 81–3, 89–101; Bowen, *Ezekiel*, 165; Risa Levitt Kohn, *A New Heart and a New Soul: Ezekiel, the Exile and the Torah*, JSOTSup 358 (Sheffield: Sheffield Academic Press, 2002), 57–8; Inchol Yang, "The Metaphor of Tyre as a Ship in Ezekiel 27: Ezekiel's Resistance against the Neo-Babylonian Empire," *ExpTim* 131 (2019): 105–14; Geyer ("Ezekiel 27," 119–25) interestingly says that ברזל ("iron") (Ezek 27:12) should be associated with the Solomon's temple; more broadly see H. McKeating, "Ezekiel the 'Prophet Like Moses'?," *JSOT* 61 (1994): 97–109.
[20] Exod 25:4; 26:1, 31, 36; 27:16; 28:5, 6, 8, 15, 33; 35:5–6, 23, 25, 35; 36:8, 35, 37; 38:18, 23; 39:1, 2, 3, 5, 8, 24, 29.

entrance to the Tabernacle and the sash of the priest (Exod 28:39; 39:29) meaning bodies, temple and ships coalesce.[21] On a cognitive level, the development of the ship metaphor is based on knowledge and understanding of the significance of the materials used in the making of the Tabernacle: readers can recognise what Tyre is like and what Tyre is not like based on previous knowledge of the Tabernacle.[22] It suggests two instances: 1) a form of hubris occurs in this ship trying to appropriate the physical features of the dwelling of God; or alternatively 2) rather than trusting in Yhwh, they build their temple (the ship) to commerce and trade. Geyer suggests that the materials and items of Tyre's trade reflect the author's attempt to portray something "sacred."[23]

Colour is also rooted in the idea of the entire ship relates to the body as a "totalizing description".[24] The coloured materials are the parts that make up the totalised body.[25] The luxurious materials assembled to make a whole evokes ekphrastic techniques. The extensive descriptions of the materials use enargia to provide a sensory description of the ship/body/temple. Using the example of the שֵׁשׁ־בַּרְקָמָה sail (v.7), the sail was not only efficient in its purpose – to catch the wind and move the boat – but also served as a symbol of Tyrian self-assurance and pride: wherever the ship went, observers would recognise and marvel at her

[21] Exod 26:36; 27:18; 36:37; 38:18.
[22] Wilson, "Tyre," 258, 261; Geyer, "Ezekiel 27," 118–9.
[23] Geyer, "Ezekiel 27," 119; contra Odell (*Ezekiel*, 346) who says, "not too much should be made of the sacral connections".
[24] It is also interesting how Ezekiel generally uses the body as a reference point in Ezek 27: v.3b says, צור את אמרת אני כלילת יפי ("Tyre, you have said, 'I am perfect in beauty.'"). The past tense alludes to Tyre's demise, but the dialogue implicitly refers to the body as a picture of beauty. This is reinforced by the repetition of the root יפה and כלל again in v.4 and then an *inclusio* when v.11 uses כללו יפיך ("they [made] perfect your beauty") which alerts the reader to the interior beauty of the Tyrian ship, Lee, *Mapping*, 87; Durlesser, *Narratives*, 16. Further to this, Ezekiel uses bodily parts throughout chapter 27: for example, "soul" (vv.13, 31), "heart" (vv.25, 26), "head" (vv.30, 31), "faces" (v.35), and indirectly through the senses, "builders made" (vv.4–6) and "voice" (v.30).
[25] Other biblical references that make use of the *waṣf*/ekphrastic techniques: Song 4:1–7; 5:11–6; 6:4–7; 7:2–10; and to a lesser extent, Pss 115:5–7; 135:16–7; Prov 6:12–5, 17; Dan 2:32–3; Isa 30:27–8; 32:3–6; and Ezek 1:5–13, 26–8.

beauty.[26] It was a tangible, white material used the Egyptian tradition to strengthen Tyre's lure and aesthetic appearance.[27] However, this is just one of the many materials that contribute to the making of Tyre. Vayntrub says these descriptions make a *complete* body (which is beauty and perfection) but this is not necessarily a *safe* or *intact* body. The city as a ship is a porous body, because all her constituent parts hail from somewhere other than Tyre.[28] Her composite nature, and her hubris and disdain for Jerusalem, allows for an "eastern wind" (v.26) to infiltrate the שֵׁשׁ־ברקמה sail and the porous parts of the ship, bringing about her destruction.

6.1.2. The Sinking of the Ship

The second part of Ezekiel 27 describes how these materials are the reason for Tyre's downfall. Though these materials do not explicitly appear again in verses 26–36, the use of ekphrasis brings the image of these sinking "riches, wares, and merchandise" (v.27) – which we know consists of coloured materials – to the forefront of the readers' minds. The ship metaphor also offers a glimpse into how Ezekiel and his audience categorised experience. Metaphor derives much of its power by not letting the audience be passive; it requires them to participate in the construction of the metaphorical meaning, such as think of a ship and everything that is associated with one.[29] When the ship sinks the luxurious materials also sink.

---

[26] Block, *Ezekiel 25–48*, 61; Greenberg, *Ezekiel 21–37*, 571; cf. Kok Sin Sia, "Ezekiel 27:1–11: The Beauty of Tyre's Ship," (PhD diss., Calvin Theological Seminary, 1994).

[27] The sail is a key part to the ship which implies Egypt is a key part of Tyre's reputation, and yet, Egypt is not mentioned as a trading partner in vv.12–24. Zimmerli (*Ezekiel 2*, 70) notes that Cyprus too is omitted, and Liverani points out that Babylonia too is missing. Liverani argues that the reason for omitting Egypt and Babylonia is because Ezekiel is uninterested in the politics of the ancient Near East and that they both did not provide raw materials for export, but rather imported them and only exported the finished goods, Liverani, "The Trade Network," 71. Yang argues the Ezekiel "intentionally" omits Egypt and Babylon in order to emphasis the role of Judah and the land of Israel as the centre of the world, Yang, "The Metaphor," 110.

[28] Vayntrub, "Tyre's Glory," 225.

[29] Newsom, "A Maker," 153. For a modern reader studying ancient literary texts, metaphor requires conceptual blending which is helped by this action of understanding socio-cultural factors of the ancient world by relating it to the imagery of a ship, Wilson, "Tyre," 249.

Commentators suggest the turn from the magnificence of the ship to its demise comes "without warning".[30] However, allusions are made to its downfall in the previous verses for example, the past tense of verse 3b (צור את אמרת "Tyre, you have said…").[31] The materials also play a role in Tyre's ruin. As well as their composite nature, mentioned above, the foreign and exotic nature of the materials suggests openness and vulnerability. Equally, the cultural connotations and other uses of the coloured materials elsewhere in Ezekiel also show concern for Tyre. Those used in the ship's design particularly emphasise this. Fine linen, for instance, despite is Egyptian origin, becomes an element in the sophisticated ritual practice of prophetic communication with YHWH.[32] Ezekiel also used embroidered materials to describe how YHWH clothes his adulterous bride (16:10, 13), which she is then stripped of following her adultery and are then used to cover idolatrous shrines (16:16, 18). Similarly, PURPLE is a dangerous material (cf. 3.1.–3.3.), reflecting its chaotic sea-purple origins. As Ezekiel is a priest, he is presumably tolerable to the use of these materials in Jerusalem. It is thus the use of these materials in the Tyrian ship which is the wrong temple that is the issue here.

Studying YHWH's role in Ezekiel 27 and the micro-cosmic imagery is necessary to understanding the cultural associations of colour further. Tyre's splendour, as conveyed by the trade list of materials, reflects its superiority over Jerusalem. Lee argues that the materials exalt the beauty of Tyre to a higher level, and thus "implicitly relativize the temple beauty of Jerusalem."[33] Tyre claims for itself the lofty praise YHWH reserved for Jerusalem.[34] Even when

[30] Block, *Ezekiel 25–48*, 68; Greenberg, *Ezekiel 21–37*, 571.
[31] Ezekiel prophesises the "princes of the sea" will step down from their thrones and remove their garments of embroidered fabric (26:16), cf. 4.2.1.3.
[32] Almalech argues that Moses chose to use שֵׁשׁ, not because there was no word for "linen"/"fine linen" at that time, but he wanted to build prophetic terminology and build a four colour sign in the Tabernacle (תכלת, ארגמן, תולעת שני, and שֵׁשׁ) as the number 4 or 40 is heavily connected to Moses (40 days on Mt. Sinai, 40 years in the desert etc.), Almalech, "The Eight," 339.
[33] Lee, *Mapping*, 105.
[34] 1) Tyre is like Jerusalem, "a beautiful city that once possessed divine-like splendor"; 2) Tyre is like Moses' Tabernacle and Solomon's Temple "clothed in fine fabrics of blue and purple"; 3) Tyre is like YHWH,

Jerusalem fell, Tyre continued to trade. Furthermore, the descriptions of Tyre enthroned upon the sea (v.3) suggest a dominion over the powers of the waters which is ultimately reserved for YHWH.[35] The motif of YHWH's battle against the chaotic force of the sea is a tradition known to Israel and Judah as a means of establishing an ordered world.[36] Its success in trading in materials means Tyre's power as a city usurps Zion and undermines YHWH.

Overall, the micro-cosmic imagery implies the ship metaphor leads to Tyre's downfall. The coloured materials, their foreignness and associations with power and wealth make the city of Tyre a strong fortress. However, this catalogue of trading and materials, particularly as part of the ship metaphor, also puts into perspective the transience of national power and that divine power is paramount. Nancy Bowen argues Ezekiel 27 presents the possibility that YHWH had nothing to do with Tyre's success.[37] However, the city's idolatrous ways means YHWH took away Tyre's triumph in economic trading; the ship *can* sink. The coloured materials, whether they are part of the ship's design, traded, or when the riches are evoked in an ekphrastic nature, are central to Tyre's beauty and Tyre's demise.

---

distributing cedar of Lebanon to the world and traversing the mighty seas; Wilson, "Tyre, a Ship," 261. Similarly, Strong says that Tyre's invincibility poses a theological alternative to Zion: "what if Tyre, not Jerusalem, was the throne of the Great King?", John T. Strong, "Tyre's Isolationist Policies in the Early Sixth Century BCE: Evidence from the Prophets," *VT* 47 (1997): 207–19 (217)

[35] Odell, *Ezekiel*, 434; Crouch, "Ezekiel's Oracles," 486; Geyer ("Ezekiel 27," 106) says the sea is a "natural element in which Tyre is set and over which it trades, it is also a symbol of chaos in the creation mythology." The uncertainty surrounding the geographical location of Tyre should also be noted, cf. *Map One*. Tyre was an island just off the coastline (Ezek 26:5; 27:32; 28:2), the Assyrian royal inscriptions says, "Tyre who dwelt in the middle of the sea", H. J. Van Dijk, *Ezekiel's Prophecy on Tyre (Ez. 26,1–28,19): A New Approach*, BibOr 20 (Rome: Pontifical Biblical Institute, 1968), 12; Nick Marriner, Christophe Morhange, and Nicolas Carayon, "Ancient Tyre and Its Harbours: 5000 Years of Human-Environment Interactions," *Journal of Archaeological Science* 35 (2008): 1281–310.

[36] Crouch makes the connection between YHWH's battle against chaotic forces at creation which appears repeatedly in conjunction with YHWH's characterisation as divine king, Crouch, *War and Ethics*, 30–1; cf. John Day, *God's Conflict with the Dragon and the Sea: Echoes of a Canaanite Myth in the Old Testament*, UCOP 35 (Cambridge: Cambridge University Press, 1985).

[37] Bowen, *Ezekiel*, 169.

6.2. Exodus 28

> והיו על־אהרן ועל־בניו בבאם ׀ אל־אהל מועד או בגשתם אל־המזבח לשרת בקדש ולא־ישאו עון ומתו
>
> And they shall be on Aaron and his sons when they come into the tent of meeting, or when they come near the altar to minister in the holy place; or they will bear guilt and die.
>
> Exodus 28:43

The clearest evidence for the parallels between the Tyrian king and the priesthood is found in Ezekiel 28:13, where the Tyrian king wears a covering made of precious stones, reminiscent of the High Priest's breastplate in Exodus 28.[38] As the linen was the sail (a key part of the Tyrian ship), linen in the High Priest's regalia covers his naked flesh (v.42) and allows him to perform duties without experiencing guilt or dying (v.43).[39] Ezekiel's identity as a priest would have meant he recognised the allusion to Exodus 28, where these terms are used with positive connotations. As his central motif surrounds Yhwh's holiness, he plays on the materials to show how Tyre cannot surpass Jerusalem. As such, this section, looks at the positive cultural connotations of the coloured materials used in the making of the High Priest's garments.[40] This

[38] Lee, *Mapping*, 97; Zimmerli, *Ezekiel 2*, 82, 92; Greenberg, *Ezekiel 21–37*, 582; Robert R. Wilson, "The Death of the King of Tyre: The Editorial History of Ezekiel 28," in *Love and Death in the Ancient Near East: Essays in Honor of Marvin H. Pope*, ed. J.H. Marks (Guildford: Four Quarters, 1987), 211–8 (214).
[39] McKay argues that linen controls their "maleness", McKay, "Gendering," 99.
[40] For previous scholarship on the significance of the High Priest's clothing, see Nihan, "Le Pectoral," 23–55; Christophe Nihan and Julia Rhyder, "Aaron's Vestments in Exodus 28 and Priestly Leadership," in *Debating Authority: Concepts of Leadership in the Pentateuch and the Former Prophets*, eds. Katharina Pyschny and Sarah Schulz, BZAW 507 (Berlin: de Gruyter, 2018), 45–67; Carmen Joy Imes, "Between Two Worlds: The Functional and Symbolic Significance of the High Priest Regalia," in Finitsis, *Dress and Clothing*, 29–62; Deborah W. Rooke, *Zadok's Heirs: The Role and Development of the High Priesthood in Ancient Israel*, OTM (Oxford: Oxford University Press, 2000); Othmar Keel, "Die Brusttasche des Hohenpriesters als Element priesterschriftlicher Theologie," in *Das Manna fällt auch heute noch*, eds. Frank-Lothar Hossfeld and Ludger Schwienhorst-Schönberger (Freiburg: Herder, 2004), 379–91; Nathan MacDonald, "The Priestly Vestments," in Berner et al., *Clothing and Nudity*, 435–48; Christine Palmer, "Unshod on Holy Ground: Ancient Israel's 'Disinherited' Priesthood," in *Fashioning Jews: Clothing, Culture and Commerce*, ed. Leonard J. Greenspoon (West Lafayette: Purdue University Press, 2013), 1–18; and Christine Palmer, "Israelite High Priestly Apparel: Embodying an Identity Between Human and Divine," in *Fashioned Selves: Dress and Identity in Antiquity*, ed. Megan Cifarelli (Oxford: Oxbow Books, 2019), 117–27.

chapter also argues colour is central to the larger theological role of the garments in the surrounding environment, as well as evoking ekphrasis and creating a multi-sensory experience.

Thought to be primarily part of the Priestly (P) materials and thus of a late date,[41] Exodus 28 follows on from descriptions of the materials used in the making of the Tabernacle and, more specifically, describes the resources needed to make the vestments for the High Priest. Clothing has enormous significance throughout the Hebrew Bible.[42] These robes legitimise the high priestly office, together with the practices and ceremonies associated with it. In order for these cultic officials to officiate, they need to be appointed by YHWH himself (see Exod 29; Lev 8); these robes are a symbol of this commissioning. The vestments draw attention to the priest as the one whom YHWH's presence is made effective and salvific;[43] the coloured materials are responsible for these attention-grabbing aesthetics. Exodus 28 describes the making of the High Priest's garments according to YHWH's instructions. This is the only passage that uses ekphrastic techniques to depict an item of clothing, making the portrayal striking. These colours and materials are divinely approved. This is especially interesting considering that these materials are very similar to those used in the description of the blasphemous ship of Tyre.

---

[41] This is not a place to defend the Documentary Hypothesis and the questions surrounding the credibility of P, nor delve into source, form or redaction criticism of the chapter. Rather this section sheds light on the portrayal of the High Priest's clothing in Exodus, something which can be accomplished without the uncertainties of the above problems with the passage. For more on the P source, see Nicholson, *Pentateuch*; Thomas B. Dozeman, Konrad Schmid and B.J. Schwartz eds., *The Pentateuch: International Perspectives on Current Research* (Tübingen: Mohr Siebeck, 2011). It is worth noting, however, that some scholars have argued for editorial activity within the description of priestly clothing, MacDonald, "The Priestly Vestments," 441.

[42] Clothing, generally, in the Hebrew Bible is analysed by essays in Antonios Finitsis ed., *Dress and Clothing in the Hebrew Bible: "For All Her Household Are Clothed in Crimson"* (London: T&T Clark, 2019); Alicia J. Batten, "Clothing and Adornment," *BTB* 40 (2010): 148–59; Prouser, "Suited to the Throne," 27–37; Matthews, "The Anthropology," 25–36; Huddlestun, "Divestiture," 47–62; L.G. Running, "Garments," *ISBE* 2:401–7; Edwards, "Dress and Ornamentation," *ABD* 2:232–8; Cohen, *Masking*; also on the lack of clothing, see Xuan Huong Thi Pham, *Mourning in the Ancient Near East and the Hebrew Bible* (Sheffield: Sheffield Academic Press, 1999) and Gary A. Anderson, *A Time to Mourn, A Time To Dance: The Expression of Grief and Joy in Israelite Religion* (Pennsylvania: Pennsylvania State University Press, 1991); Christoph Berner et al., eds., *Clothing and Nudity in the Hebrew Bible* (London: T&T Clark, 2019).

[43] MacDonald, "The Priestly Vestments," 447.

The High Priest is the main ambassador of Israel, the middleman between the people and God. This responsibility comes with social power and status, with his wealth also signalled by these garments.[44] They are made with the finest, most luxurious materials, which closely resemble those used to make the Tabernacle. Christophe Nihan and Julia Rhyder go so far as to say the different coloured fabrics used for the High Priest's regalia correspond to the different parts of the sanctuary.[45] For example, שֵׁשׁ is used for the fabrication of the curtains of the outer court (Exod 26:1), תכלת is used for the rings to hold together the curtains of the sanctuary (Exod 26:4) and זהב refers to the objects placed inside the sanctuary, such as the ark (Exod 25:11). This connection between the materials of the Tabernacle and the High Priest's garment permits Aaron to enter the sanctuary, even integrating him into its very structure.[46]

These materials are costly, due to their foreignness, as discussed in the previous chapter. Looking closely at the אפד ("ephod") (vv.6–14) and the חשׁן ("breastplate") (vv.15–30), reveals that the materials used to make them are all exotic to the southern Levant. The formulaic phrase used throughout the tabernacle texts and in Exodus 28 (vv.5, 6, 8, 15, 33) says, יהיה **זהב תכלת ואדגמן ותולעת שני ושׁשׁ** ("It shall be **gold**, **blue-purple**, **red-purple**, **crimson thread** and **fine linen**").[47] The High Priest puts on a collection of foreign materials, as instructed by YHWH. In

[44] When Aaron dies his power as High Priest is transferred to his son, which is publicly visible by means of removing these vestments to adorn Eleazar; Cohen, *Masking*, 99–114; McKay, "Gendering," 98.
[45] Nihan and Rhyder, "Aaron's Vestments," 49–50; cf. Imes, "Between Two Worlds," 37. Although interestingly, the only part of the priestly clothing that finds no correspondence with the sanctuary fabrics and motifs are the gemstones. Through these, the priest is in fact *more* colourful than his temple surroundings.
[46] Nihan and Rhyder, "Aaron's Vestments," 50.
[47] Linen is not easy to dye, and juxtaposed next to other dyed fabrics, suggests significance. It is also in direct contradistinction to the dress regular Israelites wore, who were forbidden from wearing fabrics made from mixed materials (Lev 19:19; Deut 22:1). This is related to "wholeness" (see Douglas, *Purity and Danger*, 41–57). In light of previous discussions of the Tyrian ship in Ezek 27, it could be argued that something similar is happening, another example in which the ship makes a claim to be the temple: the priestly clothing is also not "whole", so porous *like* the ship, both of which are composed of mixed, foreign materials.

their foreign origins, these were prestigious materials.[48] Each of these coloured materials represents a region of the ancient world: תכלת and ארגמן from the north-western Palestinian shores; זהב, שׁני, and תולעת from the eastern, Mesopotamia region; and שׁשׁ from the south in Egypt. This is reinforced by the foreignness of the gemstones in the breastplate: from Mesopotamia (שׁהם ישׁפה, יהלם, and שׁבו); from India through Mesopotamia (ספיר); from Egypt (אחלמה, לשׁם, נפך, and פטדה); and other unprovenanced origins (ברקת and תרשׁישׁ).[49] For YHWH to instruct the makers to import these materials reinforces his universality, as well as his interest in the rest of the ancient Near East and beyond. Interestingly, the inclusion of a possible native root as a red gemstone (אדם) strengthens this.[50] Houtman points out that no material can violate YHWH's holiness: the white linen symbolises purity and caused the least amount of perspiration (28:39, 42); "sea-purple" was a colour that did not fade and did not smudge.[51] The gemstones were engraved with the names of the Israelite tribes, for "remembrance" (28:12, 29); this adornment thus has commemorative symbolic value, bringing all Israel into the tabernacle with Aaron whilst he carries out the rituals,[52] signifying the glow of YHWH's presence through

[48] For example, covering the body with purple clothes was indicative of status throughout antiquity and throughout the ancient world, cf. 3.1. *šs* in Egypt was used to adorn the Egyptian Pharaoh who was seen as a god, Almalech, "The Eight," 338. Gold in Mesopotamia was incorporated into the ceremonial garb was reserved for the statues of deities or humans of the highest rank, Carol Meyers, *Exodus* (Cambridge: Cambridge University Press, 2005), 242; cf. Grand-Clément, "Gold and Purple," 127–33. Furthermore, King Zimri-Lim of Mari's letter to his steward Mukannišum complaining that his vestments have not been affixed with precious stones and gold, Nihan and Rhyder, "Aaron's Vestments," 45.

[49] Cf. Exod 35:27, which alludes to the idea that the tribal leaders brought the gemstones to be set in the breastpiece themselves (Num 7); C. Houtman, *Exodus*, HCOT (Leuven: Peeters, 1993), 353.

[50] See 5.1.

[51] Houtman, *Exodus*, 467.

[52] Meyers, *Exodus*, 241; the idea of engraving is a factor that helps identify the precious stones. For instance, most English translations interpret יהלם as "diamond" however, a diamond is too hard to engrave. As this cannot be done with a diamond, the colour and visual appearance of the stone must be the way of identifying it as another transparent/translucent stone that can be engraved. However, engraving the names on impure materials would have been detrimental to the communication the tribes had with YHWH (Houtman, *Exodus*, 503), suggestive that only certain stones fit these criteria. Furthermore, for the stones to be engraved like a seal or signet (v.21) underscores Aaron's representative function with the virtual "signature" of each tribe; Zwickel, "Die Edelsteine," 50–2; Nihan and Rhyder, "Aaron's Vestments," 54; Imes, "Between Two Worlds," 56; cf. Ruth Hestrin and Michal Dayagi-Mendeles, *Inscribed Seals: First Temple Period Hebrew, Ammonite, Moabite, Phoenician and Aramaic from the Collections of the Israel Museum and the Israel Department of Antiquities and Museums* (Jerusalem: Israel Museum, 1979), 9–10.

Israel.[53] Gemstones are the only part of the priestly dress not found in the tabernacle decorations, implying the High Priest is more colourful than his temple surroundings. There is a theological purpose to each material used in the אפד and חשׁן.[54]

Precious stones were indicative of possessing power and dignity (Gen 41:42; 2 Sam 12:30; Jer 22:24; Ezek 28:13; Esth 3:10), they symbolised beauty and perfection (Prov 31:10; Song 5:14; Lam 4:1), and were representative of celestial and paradisiacal purity, glory and lustre (Gen 2:12; Isa 54:12; Ezek 1:16, 22, 26; 10:1, 9; 28:13; Dan 10:6).[55] Two other key stones in Exodus 28, the אורם and תמים, add to this understanding that colour serves a theological purpose. Scholars dispute the identity, value and purpose of the Urim and the Thummim,[56] but some argue the twelve stones are secondary to them.[57] The root אורם is similar to אור ("light")

[53] It also reminds the deity of their covenantal obligations towards the community and creation, Propp, *Exodus 19–40*, 438; Nihan and Rhyder, "Aaron's Vestments," 52.

[54] MacDonald furthers this in suggesting that there are intertextual links between the roles of the אפד and חשׁן. For instance, the materials and purpose of the אפד looks back to the Israel's patriarchal past, i.e., to the twelve tribes (Gen 35:22–6) and when two of these stones are used לזכרן ("for remembrance") referring to Israel's past, this is the same root used in the story of the flood and Israel's liberation from Egypt (Gen 9:15; Exod 2:24). The חשׁן, however, looks forward to Israel's need for future guidance after the death of Moses because of the word תמיד ("continuously") (vv.29, 30); MacDonald, "The Priestly Vestments," 445.

[55] Houtman, *Exodus*, 502–3; Josephus, and more explicitly Philo of Alexandria, also reference these gemstones in relation to seasons and the zodiac. They state that the entire universe is reflected on the priestly garment, and the twelve stones correspond to the twelve zodiac signs, thus adding astrological and cosmological symbolism to the precious stones. See William W. Reader, "The Twelve Jewels of Revelation 21:19–20: Tradition History and Modern Interpretations," *JBL* 100 (1981): 433–57. Furthermore, the shoulder stones signify the sun and the moon, the linen garments symbolise the earth, and the blue coloured robes embody the sky The pomegranates are lightning, the bells are thunder, and the headdress is heaven itself. Altogether the High Priest's clothing symbolises the meeting place between heaven and earth (Josephus, *A.J.* 3.163, 185–6, 216–8; Philo, *Vita Mos.* 2.23–36; *Quaest. In Ex*. 2.112; *Som.* 1.214–5). Second Temple Period writers respond to native trajectories in Exodus: the High Priest was already a universal figure because of his clothing (cf. Ben Sira 45:8–13; 50:11; etc.; the Wisdom of Solomon 18:24; and the Testament of Levi (8:1–2).

[56] See Cornelis Van Dam, *The Urim and Thummim: A Means of Revelation in Ancient Israel* (Winona Lake, IN: Eisenbrauns, 1997); Anne Marie Kitz, "The Plural Form of 'Ûrîm and Tummîm," *JBL* 116 (1997): 401–10; C. Houtman, "The Urim and Thummim: A New Suggestion," *VT* 40 (1990): 229–32.

[57] This is because of its use in Samuel where the Urim (1 Sam 28:6) and the ephod (1 Sam 23:6–14; 30:7–10) are used for divination, Houtman, "Urim," 229–32; *idem*., *Exodus*, 494–95; MacDonald, "The Priestly Vestments," 444; Brevard S. Childs, *Exodus*, OTL (Louisville, KY: Westminster John Knox, 1974), 527. Interestingly the idea that David borrows this activity for oracular divination suggests mobility and an understanding that these garments and their glow are significant. Furthermore, Josephus tells us that the oracular devices of the High Priest, Urim and the Thummim, stopped "shining," which is to say that they ceased to function during the Second Temple Period (*A.J.* 3:163, 216–8).

suggesting a degree of light is present within the stones.[58] This flashing, glowing, bright light comes directly from these stones as a symbol of YHWH acting as an oracular stone used for light divination. The אורם and תמים are placed over Aaron's heart (v.30): ונתת אל־חשׁן המשׁפט את־ האורים ואת־התמים והיו על־לב אהרן ("And you shall put in the breastplate of judgement the Urim and the Thummim, and they shall be upon Aaron's heart"). The Hebrew heart was the foundation of understanding and knowledge,[59] meaning the stones were central to the High Priest's decision making.[60] The radiation from the light of the stones has to penetrate into the heart, the intellectual centre of the body, so the High Priest can then interpret the will of YHWH.[61]

Thus far, I have demonstrated the relationship colour has with YHWH and how two microcosms (the collection of foreign materials representative of different parts of the ancient world and the collection of fabrics representative of different parts of the sanctuary) build an ideal depiction for the clothing worn by a person with high social status and social power. The person who wears this clothing is centre of the Israelite tribes and of the ancient world.[62] This is exemplified by the use of ekphrasis through the detailed descriptions of the coloured materials. Other senses are also evoked. The descriptions of the pomegranates and the bells as part of the regalia accentuate the ekphrasis in the passage, creating a multi-sensory experience. Exodus 28:33–4 says, ועשׂית על־שׁוליו **רמני תכלת וארגמן ותולעת שׁני** על־שׁוליו סביב ופעמני **זהב** בתוכם סביב: פעמן **זהב ורמון** פעמן **זהב ורמון** על־שׁולי המעיל סביב ("And you shall make on its hem **pomegranates** of **blue-purple**, **red-purple** and **crimson thread**, all around, with bells of **gold**

[58] There is a traditional interpretation of the Urim and the Thummim as "lights and perfections," Childs, *Exodus*, 527. Kitz, "The Plural," 409. See other ancient texts: from Qumran, 4Q376 (=1Q29; 4Q375); the Pesher commentary on Isa 54:11–12 (4QpIsa[d]); Josephus, *Antiquities*, 3.216–7; cf. Van Dam, *Urim*, 16–21.
[59] Schroer and Staubli, *Body Symbolism*, 41–55.
[60] Imes, "Between Two Worlds," 57.
[61] Houtman, "The Urim and Thummim," 231; *idem*., *Exodus*, 497.
[62] Nihan and Rhyder, "Aaron's Vestments," 55.

between them all around – a **golden** bell and a **pomegranate**, a **golden** bell and a **pomegranate** on the hem of the robe all around"). Here, the pomegranates are to be made from the coloured fabrics used elsewhere in the High Priest's vestments and the Tabernacle, and the gold material of the bells make them more precious.[63] Furthermore, like the repetition of האדם האדם with regards to Esau's stew in Genesis 25, the repetition of pomegranates and golden bells suggests significance. Alternating the golden bells and the pomegranates on the lower hem of the garments creates an aesthetically pleasing picture.[64] The robe was also sonorous because of the bells. The role of the bells announces Aaron's whereabouts and signals that the High Priest was authorised to approach YHWH.[65] The sound also draws YHWH's attention to the sons of Israel, engraved on the High Priest's breastpiece.[66] Interestingly the verbalisation of פעמן and רמון, and their repetition in this verse, also creates a pleasant sound when the passage is read aloud echoing the sounds heard in the temple. Section 4.2.4. demonstrated the significance of the smell of pomegranates and their symbolism of fertility and luxuriousness. Though these are not the actual fruit, the imagery behind the fruit is present on the robes. Furthermore, the clothing is anointed with sweet smelling oil (Exod 30:30), made from myrrh, cinnamon, aromatic cane, cassia and olive oil (Exod 30:23–5). Overall, the sounds and the smells created a pleasant atmosphere to propitiate YHWH; in turn, being in favour with the divine would bring favour upon Israel (v.38).[67]

---

[63] Menahem Haran, *Temples and Temple Service in Ancient Israel: An Inquiry in Biblical Cult Phenomena and the Historical Setting of the Priestly School* (Winona Lake, IN: Eisenbrauns, 1985), 169. Pomegranate motifs are used as decoration for the two bronze columns that stood in front of the Jerusalem Temple, 1 Kgs 7:42; Jer 52:23; 2 Chr 3:16.

[64] שול ("hem") is used to describe the hem of the priestly dress (Exod 28:33, 34; 39:24–6) as well as the hem of YHWH's robe in the throne vision of Isa 6:1, strengthening the relationship between the priest and the temple/divine presence.

[65] Imes, "Between Two Worlds," 34. Contra Jeremy Schipper and Jeffrey Stackert, "Blemishes, Camouflage, and Sanctuary Service: The Priestly Deity and His Attendants," *HeBAI* 2 (2013): 458–78 (473) who argue the priestly garments were used to help the priest "blend in" to his surroundings, hence the clothing is indistinguishable from his surroundings. However, based on the sensory aspects of the priestly dress, this is an untenable position, they are trying to attract YHWH's attention, through sound, sight and smell.

[66] Houtman, "On the Pomegranates," 227; MacDonald, "The Priestly Vestments," 446.

[67] Houtman, "On the Pomegranates," 223–9.

Finally, Exodus 28:36 says, ועשׂית ציץ **זהב** טהור ופתחת עליו פתוחי חתם קדשׁ ליהוה ("And you shall make a rosette of pure **gold** and engrave on it, like the engraving of a signet, 'Holy to the Lord.'"). This shall be tied with a תכלת cord to the turban (v.37) and shall also be worn upon the High Priest's head with the "pure gold" rosette, specifically on the forehead. מצח ("forehead") is repeated twice in verse 38, suggesting the placing of the rosette on the forehead is of paramount importance. This is reinforced by the cultural significance of the forehead: it is the centre of the face and it is considered to be especially symbolic of defiance and resistance.[68] The rosette reflects this; verse 38 suggests the rosette's symbolic purpose is defined by the phrase ונשׂא אהרן את־עון which can be interpreted as Aaron is to "bear away sin" (Exod 34:7), or to "bear guilt" (Exod 28:43), to "bear punishment" (Lev 5:1), or to "bear responsibility" (Num 18:1). Should the priests fail to carry out their responsibilities, sin would accrue on the holy diadem, thus profaning the holy name engraved upon it (Exod 28:38; cf. Ezek 20:39).[69] The use of זהב ("gold") as the precious material for this rosette reinforces its significance and, juxtaposed with טהור ("pure"), suggests the diadem is associated with cleanliness and purity. Therefore, the rosette of pure gold, engraved with the Lord's name, situating on Aaron's forehead, tied with a blue-purple cord, and understood as a symbol of purity, the rosette is a significant part of the High Priest's regalia.

Aaron was not allowed to shave his hair or tear his clothes in mourning (Lev 21:10), as that would defile the clothes.[70] The vestments then compensated for impurity and uncleanliness within the sanctuary. The vestments reserved for the High Priest are clearly more than just

[68] Cf. Ezek 3:7–9 when YHWH sends Ezekiel with a hardened forehead to speak to the defiant people of Israel, Schroer and Staubli, *Body Symbolism*, 87.
[69] Imes, "Between Two Worlds," 58; MacDonald, "The Priestly Vestments," 446.
[70] He is not allowed to do this because of the way he has modified his body: he cannot dishevel his hair because it has been anointed with oil, he cannot tear his clothes because he has been "ordained" to wear them.

coverings for the body: they have oracular and divine functions; their splendour and costliness relate to the robes of deities, or those of the highest rank such as kings or high priests; they give the priest authority. Without the High Priest and his vestments, there is no meaningful cult. The dynamic description of the garments symbolises the unseen presence of YHWH and empowers the High Priest to approach YHWH as the people's representative. The High Priest was able to receive divine responses to difficult political, legal and purity problems. Colour and the materials make up this highly symbolic adornment, and with the linguistic and literary motifs behind each colour, such as the foreignness of the materials for example, it suggests YHWH divinely approves colours and the people making, wearing or even in the vicinity of somebody wearing them knew the significance of each coloured material.

6.3. Lamentations 4

כלה יהוה את־חמתו שפך חרון אפו ויצת־אש בציון ותאכל יסודתיה

> YHWH exhausted his wrath, he poured out his fierce anger and he kindled a fire in Zion that devoured its foundations.
>
> Lamentations 4:11

The use of the coloured materials in the High Priest's clothing parallel those used in the making of the Tabernacle, a symbol of the best and the elite.[71] The use of the coloured materials in the metaphor of the ship in Ezekiel 27 play a role in Tyre's downfall. Lamentations 4:11 describes the comparison of life before the destruction, which resembled that of the best and the elite, and

[71] After conversations with Laura Quick, it is interesting to ask who the dress is for, does the priest evoke the temple through his dress for the sake of YHWH, or for the wider community? Presumably the wider population have no knowledge of the workings of the inner sanctum: the sounds, scents, and tactile sensations evoked by most of the high priestly imagery would have been very alien to much of the population. Thus, the sensory aspects of priestly dress as described in these texts allow the wider community to "access" the divine space through encounter with the person of the priest, since they themselves cannot access the temple.

after, where the anger of YHWH was the reason for the destruction of the Temple. Colour is central to this contrast, used in relation to the body, beauty, power and the divine. [72]

The temple was destroyed and the city of Jerusalem fell in 586 BCE. The author(s) of Lamentations dwell on this, mixing elements of lament and dirge.[73] The city was full of wounded people suffering from the devastation after the destruction and the Babylonian invasion, this poem helped people express their pain and see YHWH as a symbol of hope. Chapter 4 moves towards reconciliation between YHWH and Israel.[74]

This lament has a key theme of "degradation": as a result of the siege everything beautiful was sullied and everything of priceless value deemed worthless. The author uses colour to convey this transformation. Brighter and more luxurious materials portray what life was like prior to the destruction. These are the three types of gold in the opening verses (זהב, פז, כתם),[75] as well as תולע ("crimson") fabrics (v.5), זכך ("bright") skin, שלג ("snow"), צח ("white") milk, אדם ("ruddy") bodies, פנינים ("coral"), and ספיר ("sapphire") (v.7). Berlin says these precious and beautiful objects "are metaphors for the most precious things – human beings."[76] However, the rich and wealthy have become destitute, the mighty leaders are now powerless and everybody

[72] What was once good and is so no longer features in vv.1–3, 5, 7–9 and indirectly in vv.12, 13–15, 16.
[73] Most scholars assume that this poem was written shortly after this event during the beginning of the exile, possibly between 587 BCE and 520 BCE; Garrett and House, *Song of Songs/Lamentations*, 434–6; Berlin, *Lamentations*; Johan Renkema, *Lamentations*, HCOT (Leuven: Peeters, 1998), 484–7. cf. Paul M. Joyce and Diana Lipton, *Lamentations Through the Centuries* (Malden, MA: Wiley-Blackwell, 2013); Kathleen M. O'Connor, "Lamentations," in *Women's Bible Commentary: Third Edition Revised and Updated*, eds. Carol A. Newsom, Sharon H. Ringe and Jacqueline E. Lapsley (Louisville, KY: Westminster John Knox, 2012), 278–82; Hetty Lalleman, *Jeremiah and Lamentations: An Introduction and Commentary*, TOTC 21 (Downers Grove, IL: Intervarsity Press, 2013); Brenner, *Colour Terms*, 30.
[74] For an overview on genre and literary style, and how this impacts interpretation, see Introduction; Berlin, *Lamentations*, 2–7; Dobbs-Allsopp, *Lamentations*, 6–19; Johan Renkema, "The Literary Structure of Lamentation," in *The Structural Analysis of Biblical and Canaanite Poetry*, eds. W. van der Meer and J.C. de Moor, JSOTSup 74 (Sheffield: JSOT Press, 1988), 294–396.
[75] The identity and qualities of each of these gold terms is undecided, for possible interpretations see Renkema, *Lamentations*, 492–4; Robert B. Salters, *Lamentations: A Critical and Exegetical Commentary* (London: T&T Clark International, 2010), 285–6.
[76] Berlin, *Lamentations*, 103.

is subject to famine. As the famine progresses, the bright colours are replaced with dullness and darkness: the gold עמם ("dims") and שׁנא ("changes") (v.1), and the environment is now full of אשׁפתות ("ash heaps") (v.5) and שׁחור חשׁך ("black soot") (v.8). The brilliance of the gold has been tarnished,[77] the תולע clothing is now ash, and the appearance of the elite has been transformed to black and soot. The surrounding environment directly affects the matter in the body, the matter on the body and even the matter consumed by the body (v.5).

There are a striking number of bodily references in this chapter, of which colour too can be found in these descriptions. This strengthens the close relationship between the materiality of the body and the materiality of colour. There are multiple references to the natural body: ראשׁ ("head") (v.1); יד ("hand") (vv.2, 6, 10); שׁד ("breast") (v.3); לשׁון ("tongue") (v.4); חך ("roof of the mouth") (v.4); עצם ("bones, bodies") (v.7); גזרה ("cuttings, hair") (v.7); תאר ("appearance, visage") (v.8); עור ("skin") (v.8); דם ("blood") (vv.13, 14); עור ("blind") (v.14); עין ("eyes") (v.17); רוח, ("breath") (v.20); אף ("nostrils, nose") (v.20); ערה ("naked, bare") (v.21). Then there are references to the unnatural body, i.e., clothing: האמנים עלי תולע ("those brought up in crimson") (v.5); לבושׁ ("a garment") (v.14). Like the idea of crimson clothes, colour is fundamentally significant to these natural bodily descriptions. To discuss a few in detail, the association blood has with defilement and RED is reflected in Jerusalem's priests and prophets shedding דם צדיקים ("blood of the righteous") (v.13) and נגאלו בדם ("they are defiled with their blood") (v.14).[78] Similarly, verse 21 says, שׂישׂי ושׂמחי בת־אדום יושׁבת בארץ עוץ גם־עליך תעבר־כוס תשׁכרי ותתערי ("Rejoice and be glad, daughter of Edom, you who dwell in the land of Uz; but also to you, the cup shall pass, you shall become drunk and make yourself naked"). This

[77] *Ibid*., 104; contra. Delbert R. Hillers, *Lamentations*, 2nd ed, AB 7A (New York: Doubleday, 1992), 137, who says gold cannot tarnish on its own. Joyce also states this reflects the cultic emphasis on the book as the temple treasures are now desecrated, Paul M. Joyce, "Lamentations," in Barton and Muddiman, *The Oxford Bible Commentary*, 528–33 (531).

[78] "Blindness" is a divine punishment that consequently affects the person's kinaesthetic and orientation abilities, it also reflects their lack of intellect, Avrahami, *Senses*, 197.

presence of the "cup" and "becoming drunk" suggests the presence of wine,[79] which, along with the presence of Edom and its relationship with the root אדם ("to be red"), relates to RED.

These descriptions of body parts go hand in hand with other multi-sensory aspects of the chapter: notions of hearing (vv.1, 2, 14, 15); smell (vv.11, 20); tasting (vv.3, 4, 5, 9, 10); and touching (vv.2, 4, 5, 6, 10, 14, 15) as well as multiple visual aspects.[80] The senses, the natural body parts and the artificial adornments on the body in Lamentations 4, all incorporate and relate to colour. The author(s) of Lamentations understood colour to represent not just visual elements, but smell and touch; synaesthesia is used to portray confusion and chaos.

4.1. and 4.1.1. discussed the significance of colour and bodily matter in verses 7–8, namely how the children and the elite are impacted by famine as a consequence of the destruction.[81] This strophe is devoted to the splendour and magnificence of what the noble, wealthy people used to be like. This initially appears as just a visual change of skin complexion but the verses evoke other senses to create an vivid experience. For instance, like with the comparisons of שלג ("snow") and צרעת ("leprosy"), not only is the colour white apparent here but also the flaky texture of snow. Renkema notes that the coldness of snow contrasts against the warmth of milk.[82] שחור ("soot, blackness"[83]) suggests touch but also smell, a pungent reminder of the fire that destroyed the Temple. This is also the case with אשפתות ("ash heaps") in verse 5. The verse

[79] Noegel, "Scarlet," 13; cf. Gen 49:12; Prov 23:31.
[80] For a larger discussion on this see Marianne Grohmann, "The Role of Senses in Lamentations 4," in Schellenberg and Krüger, *Sounding Sensory*, 181–98; cf. Avrahami, *Senses.*
[81] No class or group of Israelite society go untouched by famine and suffering, thus relating colour to social status: the young and old (v.16), men and women (v.10), children (vv.2–4), priests and prophets (v.13), the political leaders and elite (v.5), and even the king (v.20); F.W. Dobbs-Allsopp, "Tragedy, Tradition, and Theology in the Book of Lamentations," *JSOT* 74 (1997): 29–60 (36).
[82] Renkema, *Lamentations*, 512–3.
[83] A *hapax legomenon* referring to "soot", "coal", or "ash", something that turns their skin dark as the famine cannot do this; Brenner, *Colour Terms*, 98–9; Hartley*, Semantics*, 70; Gradwohl (*Die Farben*, 53) argues that the blackening of the skin is a symptom of undernourishment; cf. Job 30:30; Garrett and House, *Song of Songs/Lamentations*, 441.

says, האכלים למעדנים נשמו בחוצות האמנים עלי **תולע** חבקו אשפתות ("Those who ate delicacies are desolate in the streets, those who were brought up in **crimson** embrace ash heaps"). The touch and smell of ash heaps, particularly if still burning, reflect the bleak situation.[84] Taste is used with reference to delicacies they used to eat; now they rummage through the ash heaps in search of scraps of food.[85] As a result, their eyes fail and, as such, weaken their intellect (v.17).[86]

Colour in Lamentations 4 evokes the senses and is fundamentally tied to corporeal matter. It also relates to emotion. Tragedy is present throughout the book of Lamentations and the use of colour and coloured materials emphasises this. For instance, the loss of hope and a sense of meaning leads to depression. Paul Kruger studied examples of depression in the Hebrew Bible, as manifested in body posture and movements, in eating and sleeping, and in a negative outlook of life and dwelling on the thoughts of death.[87] Lamentations 4 mentions not eating (vv.4, 5, 9, 10), not walking (v.18) and eschatological thoughts (v.18).[88] Within these contexts are colours used to contrast the happier times before the destruction, such as תולע ("crimson"). The darker, bleaker colours reflect the feeling of despair. The brighter colours of the comparison in Lamentations 4 are favoured materials used throughout the Hebrew Bible. The use of colours in the chapter create a contrast between good/light colours and bad/dark colours. Lamentations 4 contains multiple references to brightness: צחח ("to dazzle, to glow") (v.7) and זכך ("to be

[84] Grohmann suggests the aftermath of this fire, i.e., the ash heaps (v.5) and the soot/coal (v.8), generate associations of "dust, death, garbage, and bad smell"; Grohmann, "The Role of Senses," 193.
[85] Renkema, *Lamentations*, 516.
[86] Cf. Jer 14:6; Pss 38:11; 119:81–2; Job 31:16; Avrahami, *Senses*, 217.
[87] Paul A. Kruger, "Depression in the Hebrew Bible: An Update," *JNES* 64 (2005): 187–92.
[88] Kruger argues the cognitive metaphor behind "depression" is "down": downward movements and posture, downwards in levels of eating/sleeping, and people are "down" literally and figuratively, Kruger, "Depression," 190–1; *idem*., "Emotions in the Hebrew Bible: A Few Observations on Prospects and Challenges," *OTE* 28 (2015): 395–420 (410). Cf. David J. Reimer, "Good Grief? A Psychological Reading of Lamentations," *ZAW* 114 (2002): 542–59 (552–4).

pure, clean") (v.7),[89] alongside the glow of the precious stones, זהב ("gold") (v.1); כתם ("gold") (v.1); פז ("pure gold") (v.2); פנינים ("coral, rubies") (v.7); and ספיר ("lapis lazuli") (v.7).

Colour in Lamentations is a poetic device that signals the suffering of the people in Jerusalem, contrasting what they once had and what they have now by contrasting colours in relation to wealth, power and social status. The colours used to describe them before the destruction are those used in relation to the Temple and are favoured by YHWH, emphasising luxury and opulence. Then these materials are darkened and dimmed; destruction turns everything black. Coloured materials that have elements of brightness reflect the complexion of the elite before the destruction. The body is also used in relation to colour, for example the eyes become weak and blind and their faces are blacker than soot. This evokes the senses: the smell and blackness of the ash heaps reflects the despair and famine around them. Colour relates to emotions particularly of despair and depression.

6.4. Ezekiel 1

> וארא ו כעין חשמל כמראה־אש בית־לה סביב ממראה מתניו ולמעלה וממראה מתניו ולמטה ראיתי כמראה־אש ונגה לו סביב
>
> From the appearance of his loins upwards, I saw the colour of amber, like the appearance of fire enclosed all around, and from the appearance of his waist downward, I saw something with the appearance of fire and a brightness all around.
>
> Ezekiel 1:27

[89] Brenner (*Colour Terms*, 30, 72–4, 120) suggests צחח refers to the brilliance, cleanest, brightest and most dazzling form of "white". Hartley (*Semantics*, 59) suggests לבן and צחח "stand for the same basic chromaticity" but differ in regards to brilliance, lustre, and sheen; לבן ("white"), צחח the radiance and brilliant of the "white" colour.

The preceding sections have connected through destruction and the ideal of the Tabernacle/Temple. Lamentations 4 describes the immediate aftermath of the destruction of the Temple; Ezekiel conveys what it is like to be part of the community that experienced the destruction and was exiled to Babylon. The book opens with a vision of God (chapters 1–3) and then anticipates the fall of Jerusalem and the destruction of the Temple (chapters 8–11). Christoph Uehlinger argues that Ezekiel 1 is an unusual description of a deity, but the descriptions are consistent with Late Babylonian cosmological conceptions.[90] The author would have accultured to Babylonian society and been exposed to iconography of the time. In the opening vision of YHWH, Ezekiel attempts to describe his experience through similes using earthly, material objects. The vision's use of colour differs significantly from the three passages previously studied in this chapter and shows an alternative use of colour in the Hebrew Bible. What follows is a discussion of these similes, such as "the colour of amber" in verse 27, as well as the vision's use of brightness; it further considers how this terminology relates to YHWH.

The vision genre appears throughout Ezekiel,[91] though the account in Ezekiel 1 is considered the most important (alongside perhaps the temple vision in Ezek 40–48).[92] The prophet couches his description in similes, pushing his vocabulary as hard as he could to describe the indescribable.[93] By necessity, Ezekiel uses earthly materials to try and convey the divine

[90] Christoph Uehlinger, "Virtual Vision vs. Actual Show: Strategies of Visualization in the Book of Ezekiel," *WO* 45 (2015): 62–84.

[91] Chapters 8–11 see Ezekiel's justification for the fall of Jerusalem; chapter 37 is the "dry bones" vision anticipating Israel's return to Canaan; and chapters 40–48 concerns visions of the new temple and YHWH's return.

[92] Paul L. Reddit, *Introduction to the Prophets* (Grand Rapids, MI: Eerdmans, 2008), 148.

[93] As well as the preposition כ ("like") and כמראה ("like the appearance of"), Ezekiel also uses דמות ("likeness") in some cases (vv.5, 10, 13, 16, 22, 26, 28) as he is "unable to express himself definitively"; Daniel I. Block, "Text and Emotion: A Study in the "Corruptions" in Ezekiel's Inaugural Vision (Ezekiel 1:4–28)," *CBQ* 50 (1988): 418–42 (429–30); John F. Kutsko, *Between Heaven and Earth: Divine Presence and Absence in the Book of Ezekiel* (Winona Lake, IN: Eisenbrauns, 2000), 66–7, 89. Kutsko (*Between Heaven and Earth*, 68–9) also argued that מראה and דמות relate to Gen 1:26 and the use of צלם אלהים ("image of God"), and that whilst Ezekiel draws on these priestly traditions, he refrained from using צלם in this theophany as the term is too intimately connected to idols and cult statues; cf. Benjamin D. Sommer, *The Bodies of God and the World of Ancient Israel* (Cambridge: Cambridge University Press, 2009), 69–70. According to Ezekiel, idols are not

experience: כעין חשמל (“like the eye of amber”) (v.4, 27), כעין נחשת (“like the eye of bronze”) (v.7), כעין תרשיש (“like the eye of beryl”) (v.16), כעין הקרח (“like the eye of crystal”)[94] (v.22), and כמראה אבן־ספיר (“like the appearance of a lapis lazuli stone”). Stating “something is like something” is different from the way that colour is used elsewhere in the Hebrew Bible. Before looking at the role of the materials closely, it should be noted I have literally translated כעין as “like the eye” here, whereas modern translators opt for “like the colour”.[95] Juxtaposed with precious and bright materials, the use of עין suggests the sparkle or glint of the eye (cf. NRSV translation “like gleaming amber” for example), or perhaps it could just refer to the way things look (like the eye glances on “amber”). The brightness of the eye complements “amber,” “bronze,” “beryl,” “crystal” and “sapphire”. These precious materials would be natural language with which to describe the divine, particularly as they are used in relation to the Temple and the High Priest to reflect radiance. For example, חשמל relates to the Akkadian *elmēšu/elmeštu* (= *ḫalmašu*),[96] which is a precious stone of sparkle and brilliancy (cf. 5.2.1.), used as a sculptural representation of divine images in Babylon.[97] חשמל and נחשת (“bronze”) were valuable materials, like the gemstones, and were well known across the ancient Near East:

legitimate representations of divine presence (contra the Mesopotamian understanding of divine presence, see below).

[94] I opt not to use הקרח as a colour word, as it is usually translated as “frost” or “ice” (*HALOT* 2:1140); cf. Gen 31:40; Jer 36:30; Ps 147:17; Job 6:16; 37:10; 38:29. It has Akkadian cognates (*qarāḫu*, *CAD* Q, 126; and *qarḫu*, *CAD* Q, 131) which refer to “frost”/“ice” rather than “crystal”, however, Ezekiel and his audience must understand הקרח in relation to its transparency, shine and glisten.

[95] Moshe Greenberg, *Ezekiel 1–20*, AB 22 (Garden City, NY: Doubleday, 1983), 43; Block, *Ezekiel 1–24*, 92 fn.14.

[96] Bodi, *The Book of Ezekiel*, 82–94.

[97] Margaret S. Odell, “Ezekiel Saw What He Said He Saw: Genres, Forms, and the Vision of Ezekiel 1,” in *The Changing Face of Form Criticism for the Twenty-First Century*, eds. Marvin A. Sweeney and Ehud Ben Zvi (Grand Rapids, MI: Eerdmans, 2003), 162–76 (173). Cf. Gilgamesh VI, 10–11: “I will harness for you a chariot of lapis and gold, whose wheels are gold and whose horns are *elmēšu*.” Amber here is part of the decoration of the divine chariot, Shawn Zelig Aster, *The Unbeatable Light: Melammu and Its Biblical Parallels*, AOAT 384 (Münster: Ugarit-Verlag, 2011), 305; On an alternative note, Metzler translates חשמל as “amber” but because others translate it as “electrum” [see Walther Zimmerli, *Ezekiel 1*, Hermeneia (Philadelphia, PA: Fortress, 1979), 82] plus its Modern Hebrew association with electricity, she warns חשמל is a dangerous thing, particularly in relation to עין where seeing and thus knowing, in relation to YHWH, is too dangerous; Maria Metzler, “The Glory of God in Animal Eyes: Ezekiel’s Cherubim and Clarice’s Cockroach,” in *Tzedek, Tzedek Tirdof: Poetry, Prophecy, and Justice in Hebrew Scripture: Essays in Honor of Francis Landy on the Occasion of his 70th Birthday*, eds. Andrew Gow and Peter Sabo (Leiden: Brill, 2018), 3–21 (8).

תרשיש ("beryl; yellow jasper") were thought to originate from the south of Spain, travelling eastwards to the southern Levant and the ancient Near East; ספיר ("sapphire, lapis lazuli") comes westwards from Afghanistan and through Mesopotamia. Ezekiel, living in exile in ancient Mesopotamia, recalls his knowledge of the Temple, the High Priest and the materials around him, particularly shiny metals and gemstones, to recapture the divine image.[98]

Ezekiel uses these earthly elements as similes to convey his experience.[99] The use of meteorological phenomena here are indirectly associated with colour: רוח ("wind") (v.4), סערה ("storm") (v.4), ענן גדול ("a great cloud") (v.4), מראיהם כגחלי־אש ("their appearance like coals of fire") (v.13), כמראה־אש ("like the appearance of fire") (v.27), כמראה הבזק ("like a flash of lightning") (v.14), כקול מים ("like the sound of waters") (v.24), and כמראה הקשת אשר יהיה בענן ביום הגשם ("like the appearance of a rainbow that is in a cloud on a rainy day") (v.28). Studying כמראה־אש further, the warm colours and the brightness of the flames are said to surround the living creatures (v.13) and the "person" on the throne (v.27). Heat is also present, heat is associated with anger throughout the Hebrew Bible.[100] The flash of lightning, too, visualises the brightness and the chaotic nature of the situation. Auditory sensation is invoked by the wings of the creatures which resemble chaotic waters (v.24).[101] The fire, the lightning and the waters are not a friendly image: the movement of the heavenly host evokes dread and fear.[102]

[98] Greenberg reinforces the significance of provenance: "Virtually every component of Ezekiel's vision can thus be derived from Israelite tradition supplemented by neighbouring iconography […] Ezekiel had little opportunity to study the artwork of Babylonian temples, or witness the grand processions of the gods. Even in the event that he had, he was too concerned over the purity of Israel's worship." Greenberg, *Ezekiel 1–20*, 58.

[99] Hallo argued divine presence was adequately symbolised by the cloud, the ark and other natural phenomena, William Hallo, "Cult Statue and Divine Image," in *Scripture in Context II: More Essays on the Comparative Method*, eds. William Hallo, James Moyer, and Leo Perdue (Winona Lake, IN: Eisenbrauns, 1982), 1–19 (2).

[100] Cf. Ps 18:9; Nah 1:5–6; Joel 2:3, 5.

[101] Ezekiel uses מראה fifteen times to indicate what he saw, and קול seven times to indicate what he heard. The multi-sensory descriptions show Ezekiel is trying to convey a trustworthy experience rather than a fantasy or virtual reality, Ellen van Wolde, "The God Ezekiel 1 Envisions," in Joyce and Rom-Shiloni, *The God Ezekiel Creates*, 87–106 (87–9); George W. Savran, *Encountering the Divine: Theophany in Biblical Narrative*, JSOTSup 420 (London: T&T Clark, 2005), 56.

[102] This is reflected in the use of ירא/יראה ("fear") in vv.18 and 22 to describe the terror of the living creatures.

The use of רוח סערה ("stormy wind") strengthens this,[103] especially when juxtaposed with the direction from which the stormy wind comes from, צפון ("north"), and ענן גדול ("a great cloud"). Van Wolde noted in Ezekiel the north houses the host of evil invaders (23:23–24), Nebuchadnezzar (26:7), the hordes of God (38:6, 15; 39:2), the princes who were taken captive in the pit (32:30) and all of these proceed from the north to do battle.[104] The ענן גדול, unique to Ezekiel, suggests a sizeable, powerful and threatening cloud, bringing dark and thunderous colours in the mind.

Furthermore, the first part of verse 28 says, כמראה הקשׁת אשׁר יהיה בענן ביום הגשׁם כן מראה הנגה סביב הוא מראה דמות כבוד־יהוה ("Like the appearance of a rainbow that is in a cloud on a rainy day, such was the appearance of the brightness all around. That was the appearance of the likeness of the glory of the Lord"). Commentators and dictionaries alike struggle with קשׁת in this context: some assume the dazzling and radiant image reminds the prophet of a rainbow;[105] others say this improbable.[106] If the former, the question arises as to whether or not it is a rainbow as we know rainbows today. The text portrays a figure emerging from a bright, almost blinding glare, from the fire and from the glory; the figure could be surrounded by a refracted light like the rainbow after a storm.[107] The twelfth Sabbath Shirah from Qumran (4Q405 20 ii-21-22:10-11) refers to "a radiant substance with glorious colours, wondrously hued, purely blended, the spirits of the living creatures which move continuously with the glory of the

[103] Cf. Isa 29:6; Pss 107:25; 148:8 which describe רוח סערה as a stormy wind of attacking nature, a powerful agent of YHWH. More generally, the storm theophany appears in 2 Sam 22:11–13; Pss 18:11–13; 77:19; Is 4:5; Zech 9:14; Nah 1:3b; Hab 3:4, 11; Job 38:1; 40:6.
[104] van Wolde, "The God Ezekiel," 98; Zaphon is also the dwelling place of the god Baal.
[105] Block, *Ezekiel 1–24*, 105; Joseph Blenkinsopp, *Ezekiel* (Louisville, KY: Westminster John Knox, 1990), 22.
[106] Zimmerli, *Ezekiel 1*, 123; Ronald E. Clements, *Ezekiel* (Louisville, KY: Westminster John Knox, 1996), 11.
[107] See 3.2.1.4.; cf. divine rainbows, James, *Light and Colour*, 105–09; *idem*., "Colour," 66–95. Contra Savran (*Encountering the Divine*, 58) who points out rainbows usually appear at the end of a storm (Gen 9) as a symbol of divine protection, but on this occasion appears during suggesting it is part of the storms destructive power.

wondrous chariots."[108] There is also a ninth-century BCE coloured ceramic in Assur from the time of Tukulti-Ninurta II, which depicts the storm god Assur, anthropomorphic from the waist up with a bow in hand. He is encircled with flames of fire and wavy lines of colour, illustrating radiance and brilliance.[109] It attributes קֶשֶׁת as a weapon of a hunter or warrior.[110] Allen points out lightning in storm theophanies signal the arrows of the divine warrior;[111] the קֶשֶׁת in Ezekiel may refer to the bow that shoots lightning arrows down. Habakkuk 3:9 says, "You brandished your naked bow, you called for many arrows" (cf. 1 Sam 2:4; 18:4; 2 Kgs 13:14–15 etc.), suggesting that Ezekiel may portray the bow as a weapon of war. קֶשֶׁת in Genesis 9:13–16 is a gracious covenantal symbol between YHWH and his people; this could be YHWH putting aside his bow, promising to punish no longer.[112] The ancient understanding of "a rainbow" then centres on the bow as a weapon.[113]

Ezekiel uses brightness throughout this theophany.[114] נגה ("brightness") features in verses 4, 13, 27 and 28, and strengthens the luminous descriptions of the divine. נגה surrounds the figure(s) as a spectrum of light, a halo around the whole.[115] The term is also used elsewhere in the Hebrew Bible to describe YHWH (cf. 2 Sam 22:13; Ps 18:12; Ezek 10:4; Amos 5:20; Hab 3:11). Again, the brightness of "fire", "burning coals", "torches", "lightning", and the

[108] Carol A. Newsom, *Songs of the Sabbath Sacrifice: A Critical Edition*, HSS 27 (Atlanta, GA: Scholars Press, 1985), 305–6; 316–7.
[109] Leslie C. Allen, "The Structure and Intention of Ezekiel I," *VT* 43 (1993): 145–61 (154); Greenberg, *Ezekiel 1–20*, 54.
[110] *HALOT* 2:1155–6; see Gen 27:3; 1 Sam 2:4; 2 Sam 22:35; Isa 7:24; 21:17; Zech 9:10; 10:4; Hos 2:20; Ps 18:35; Job 20:24.
[111] Allen, "The Structure," 154; cf. Savran, *Encountering the Divine*, 55.
[112] Gerhard von Rad, *Genesis: Revised Edition*, OTL (Philadelphia, PA: Westminster Press, 1973), 134; Brueggemann, *Genesis,* 84–5; Ellen van Wolde, "One Bow or Another? A Study of the Bow in Genesis 9:8–17," *VT* 63 (2013): 124–49; cf. Kronholm and Fabry, "קשׁת," *TDOT* 13:201–8.
[113] More generally, see T.M. Lemos, "Broken are the Bows of the Mighty": The Bow in Ancient Israel and the Gun in Contemporary America," in *God and Guns*, eds. C.L. Crouch and C.B. Hays (Louisville, KY: Westminster John Knox, forthcoming).
[114] Block, "Text and Emotion," 430; cf. Andruska, "The Strange Use," 1–7 and the idea of radiance as military power evoking feeling of awe, fear and intimidation.
[115] Aster, *Unbeatable Light*, 304.

brightness of the "eye" in "amber", "bronze," "beryl", and "crystal", also semantically include brightness, as do elements of splendour, awe and glory. Ellen van Wolde shows how the features which first catch Ezekiel's eye in verse 4 – כעין חשמל ("like the eye of amber"); אש ("fire"); ונגה לו סביב ("brightness all around it"); ענן גדול ("a great cloud"); and רוח סערה ("a stormy wind") – are similar to those in verses 27–28. All the shining and bright phenomena used are terms of comparison for YHWH's כבוד ("glory"); verse 4 describes YHWH alone, not the heavenly creatures that follow.[116] Clements argued YHWH himself is not actually seen, rather his "glory". "Glory" is a mode of divine presence (Exod 33:18, 22; Num 14:21–22; Deut 5:24; Isa 6:3);[117] כבוד ("glory") refers to YHWH's body and hence his very self.[118] Marilyn Burton demonstrates כבוד can also be light (Isa 60:1; Ezek 4:10; 43:2).[119] It is an unspeakably bright light, hence why it is surrounded by a cloud (cf. Exod 24:16–17).[120]

Shaun Zelig Aster demonstrates similarities between the glory and brightness of YHWH and the understanding of *melammu*, the Akkadian word for "divine radiance". Ezekiel and Neo-Assyrian art both depict a bifurcated radiance.[121] Thus, the aforementioned tile from Assur has a layer that immediately surrounds the divine's body, as well as a second layer of flame-like triangles surrounding a circle of god's body. Ezekiel 1:27–28 likewise distinguishes the inner and outer layer, between the כמראה־אש ("like the appearance of fire") in verse 27 and the נגה radiance that surrounds it and has the appearance of a rainbow (v.28). There is also the "upwards" and "downwards" of the loins that characterises brightness in verse 27: כעין חשמל

[116] van Wolde, "The God Ezekiel," 89–92.
[117] Clements, *God and the Temple*, 104; cf. Kutsko, *Between Heaven and Earth*, 87–93; Savran, *Encountering the Divine*, 51.
[118] Sommer, *Bodies*, 67–9.
[119] Marilyn Burton, *The Semantics of Glory: A Cognitive, Corpus-Based Approach to Hebrew Word Meaning*, SSN 68 (Leiden: Brill, 2017), 171.
[120] Sommer, *Bodies*, 68.
[121] Aster, *Unbeatable Light*, 312–5; *idem*., "Ezekiel's Adaptation of Mesopotamian '*Melammu*'," *WO* 45 (2015): 10–21; cf. Hallo's comparison in general between divine presence and the Mesopotamian divine image through sculptural manifestation; Hallo, "Cult Image," 4–19.

כמראה־אש (“like the eye of amber, like the appearance of fire”) describe the top half of the “body” and כמראה־אש ונגה לו סביב (“like the appearance of fire and the brightness that surrounds it”) depicting the bottom half. Though it is unlikely Ezekiel would have been familiar with the tile from Assur, and there is no surviving evidence of this type of art attributed to the Neo-Babylonian period, similar depictions exist in both Neo-Assyrian and Achaemenid material suggesting a continuity of artistic style and a possible influence on Ezekiel’s descriptions.[122] Ezekiel uses brilliance, brightness and shiny coloured materials to describe YHWH and his glory, using storms, clouds, and fire to convey this experience of radiance, along with the splendid and majestic elements.

Finally, the כסא (“throne”) in verse 26 looks like the appearance of אבן־ספיר (“a lapis lazuli stone”). The throne itself is associated with notions of “power” and “might”. This throne, however, also relates to the four separate wheels (cf. Ezek 10 and the wheels of the chariot) that move alongside the heavenly creatures (vv.15–21).[123] It also relates to the storm theophany. Both of these suggest a transformation from a static to a mobile throne.[124] The movement only reinforces the powerful presence of YHWH, sitting on gold and purple.

Most apocalyptic type literature draws on Ezekiel. Daniel 10 also describes an angelic, heavenly figure in verses 5–6: ואשׂא את־עיני וארא והנה איש־אחד לבוש **בדים** ומתניו חגרים **בכתם** אופז: וגויתו **כתרשיש** ופניו כמראה ברק ועיניו כלפידי אש וזרעתיו ומרגלתיו כעין **נחשת** קלל וקול דבריו כקול המון (“I lifted my eyes and saw a man clothed in **linen**, whose waist was girded with **gold** of Uphaz. His body was like **beryl** and his face like the appearance of lightning, his eyes were like torches of fire

[122] Aster, *Unbeatable Light*, 313.
[123] The iconography of a throne, wheels and creatures feature heavily in Babylonian cosmology blended with mythology, see Uehlinger, “Virtual Vision,” 77–8.
[124] Allen, “The Structure,” 153.

and his arms and his feet like the eye of burnished **bronze**. The sound of his words like the roar of a multitude"). Daniel's description of the divine is very similar to that of Ezekiel, using similar precious materials and similes. To summarise this section: Ezekiel has a clear view of what he is experiencing but is at a loss to find the words to describe it effectively; the theophany transcends all boundaries of normal human experience. He therefore uses the language of analogy; every description is "the appearance of" or "something like". This means the vision could only be recounted in relation to ideas and concepts familiar to the prophet.[125] These concepts must have also been familiar to his contemporaries in Judah and Babylon. This gives us an insight into both the authors' and the audience's thinking. The precious coloured materials, alongside the indirect colours evoked in the storm clouds and the bow, are earthly, meteorological phenomena to which Ezekiel refers in its attempt to comprehend the radiance, the brilliance and divine brightness of YHWH.[126] YHWH's threatening authority and power is portrayed through colours and radiant imagery.

6.5. Summary

Attending to the materiality and the provenance colour directly and fundamentally illuminates the broader, cultural themes of the Hebrew Bible. Across all four texts discussed here, coloured materials relate to bodies, the environment and sacred space, and the character's or city's status of wealth and power. Ezekiel 27 and Lamentations 4 describe destruction (the fall of Tyre and the fall of Jerusalem); Ezekiel 27 and Exodus 28 contrast idolatrous micro-cosmic imagery with idealised, faithful cosmic imagery; and Exodus 28, Lamentations 4 and Ezekiel 1 allude to the

[125] Block, "Text and Emotion," 430.

[126] Ezekiel describes YHWH as appearing enveloped in radiance, which compared to the tile from Assur and other Neo-Assyrian/Neo-Babylonian depictions that equated radiance with *melammu*, suggests Ezekiel draws on this understanding of the divine/gods in Mesopotamian art. However, he was implicitly denying the power of the Babylonian gods, and affirming the power of YHWH; Aster, "Ezekiel's Adaptation," 19–21. The direct relationship between colour, radiance and *melammu* remains to be explored, but suggests something unique about Ezekiel's way of couching YHWH.

idea that brightness and radiance are part of ancient colour categorisation (using gemstones, brighter colours before destruction, and relating them to the divine).

Furthermore, these passages *all* relate colour to the divine, whether through the temple, through the High Priest as Yhwh's representative of the people, through Yhwh's actions or through divine radiance. For example, in Ezekiel 27, even though direct references to YHWH are absent, his sovereignty and authority are central to the lament, because Tyre is blasphemous. Exodus 28 describes instructions given by YHWH for coloured garments worn in the commissioning of the next High Priest. YHWH was a symbol of hope in the destruction and suffering portrayed in Lamentations 4 and Ezekiel 1 is all about the prophet's vision of the divine; this brings colour into a theological conversation with other themes of the Hebrew Bible. For example, a discourse of morality becomes especially apparent: if Tyre used its wealth, power or status wrongly, the ship would sink. If the High Priest's garments were wrongly made or the High Priest himself ruined the vestments, the makers are violating YHWH's instruction and the sanctity of entering the Tabernacle. Furthermore, this ties in with the theme of blessing the righteous and cursing the wicked; those who are blessed have wealth, power and social status. This, in turn, means they interact with colour, whilst those who are cursed ultimately lack colour, or are modified by native, dull colours like black. The role of colour within a culture is key to understanding that society's identity, thought and traditions.

In view of the finding that specific colour terms are aligned with divinity, it is important to perhaps briefly highlight such texts in which colour is absent as a characteristic. As such, there is a significant lack of colour in the royal sphere. Though colour appears in foreign royal contexts (e.g., Esther 1, 8; Daniel 5; and more specifically, ארגמן robes worn by the kings of Midian in Judges 8:26 and Ezekiel 23:6 depicts Assyrian governors and commanders adorned

in תכלת), the Israelite and Judahite kings/queens are not connected with it.[127] Interestingly, "sea-purple" and "gold" emphasise this divide between colour in the divine sphere and the lack of colour in the royal sphere. The biblical uses of תכלת, ארגמן and זהב serve to emphasize the kingship of Yhwh, the one true king. This explains why they are found in Yhwh's temple and temple décor, but never in the descriptions of the Israelite and Judahite palaces or royal garments. "Sea-purple" and "gold" were understood as divine materials, and biblical authors did not wish to associate these materials with the king.[128]

This chapter has also demonstrated that colour is a multi-sensory experience centred on the body. The descriptions of coloured materials in the ship metaphor in Ezekiel 27 and the High Priest's garments in Exodus 28 create a vivid picture of their respective situations. The sound of the golden bells (Exod 28), the enargia of the ship sinking evokes the sound of splashing (Ezek 27) and the sound of YHWH's voice and the water (Ezek 1) all create a multi-sensory experience. In the case of Lamentations 4, colour relate also to emotions.

Ultimately, Ezekiel tried to use colour to describe YHWH, in the form of analogies and similes, but, however, material colour language failed the prophet; he had to resort to words referring to the use of luminosity, radiance and brightness of YHWH's appearance. The materiality of colour is the very bridge between the human and the divine. Humans have an imperfect sensory awareness, but selected colours and materials allow viewers to get closer to YHWH and understand the deity a little more. Human bodies are commonly colourful in the Hebrew Bible, but the figure of God is one of brilliance; YHWH goes beyond colour.

[127] Perhaps Queen Jezebel's interaction with פוך in 2 Kgs 9:30 is an exception.
[128] For more on this idea, see Ellena Lyell, "Redefining Kingship: The Uses of Purple in the Hebrew Bible," *ZAW* forthcoming; *idem*., "Giving Gold, Spices and Stones: A Closer Look at the Queen of Sheba's Gift to Solomon," *HS* forthcoming.

7. Conclusion

Lazarus Geiger's comparative approach to colour perception in ancient texts like Homeric epic and the Bible was published one hundred and fifty years ago. Approaches to studying colour classification and usage in ancient texts has progressed significant since the nineteenth century. Athalya Brenner's research into Biblical Hebrew colour terms, the only comprehensive study, was published nearly forty years ago. Since then, scholars have begun to address the Hebrew Bible in different ways. This study fulfils the need to integrate Brenner's somewhat dated philological exercise with some of the innovative scholarship on literature and culture of the Hebrew Bible, allowing us to examine ancient colour perception from a social and cultural perspective and revealing nuances about the use of colour in relation to the body, the surrounding environment and the divine.

The thesis began with a brief introduction to each corpus and then a survey of the data that picked out colour terms from each text. Three key patterns emerged from this evidence: 1) there is a relationship between colour and material phenomena that centres around the body; 2) brightness and luminosity are a fundamental feature of ancient colour perception; and 3) PURPLE and RED are significant colour categories. What followed in Chapter 3 was an exploration of how PURPLE, specifically "sea-purple", was understood across the ancient world. Across Homeric epic, Herodotus' *Histories*, and the Hebrew Bible, "sea-purple" is a prestigious material phenomenon that adorns the body and is associated with wealth, power, beauty, gender, social status, and especially the divine. It was used in this thesis as a case-study, flagging the importance of materiality, the provenance of "sea-purple", and the way that colour is used in biblical texts as part of larger narrative devices.

Chapter 4 centred on colour and materials used in relation to the body: matter *in* the body, matter *on* the body and matter *consumed* by the body. In the first of this tripartite distinction, colour described a change in a person's skin complexion and hair colour. YHWH plays a key role in these changes in the natural appearance. YHWH also has a say on which matter goes *on* the body. Descriptions of coloured fabrics, jewellery, cosmetics and gemstones evoke a set of multi-sensory experiences, which were used as a narrative device to relate to cultural connotations of defilement, purity and fertility. Matter *consumed* by the body built on these associations; this section specifically addressed chromatic descriptions of wine and bread, and focussed on the story of Esau and "red" stew. Genesis 25 pushes the boundaries of RED by using Esau's relationship with אדם ("red") to predict his downfall.

Chapter 4 led to an exploration of provenance: where these coloured materials and terminology came from and how they were used elsewhere in the ancient Near East. Chapter 5 demonstrated a stark contrast between the plainer materials indigenous to Israel and Judah and the exotic, brighter materials imported from elsewhere. Borrowing and importing was primarily because of prestige. Words and materials could be traced linguistically to Aramaic, Akkadian, Persian and Egyptian and geographically to Mesopotamia, India and Egypt. The discussion clearly shows that identifying the provenance of coloured materials is significant to understanding the use of the colour terms in biblical texts.

Chapter 6 applied these findings to Ezekiel 27, Exodus 28, Lamentations 4 and Ezekiel 1. The analysis of Ezekiel 27 demonstrated that coloured materials – whether part of the ship's design or those that are traded – are central to Tyre's beauty and Tyre's demise. The materials, their foreignness and their associations with power and wealth are used polemically to try and supplant Jerusalem. In contrast, Exodus 28 used the micro-cosmic imagery of coloured

materials to depict the ideal body, someone who has a vital role and a powerful responsibility as a representative of Israel. These materials permit the High Priest to carry out his responsibilities and approach YHWH and certain parts of the Tabernacle. YHWH chose the materials from afar to stress the High Priest's role in society and to make Israel and the Temple the centre of the ancient world. In Lamentations 4, colour related to the body, senses and emotions. Colour is central both to the description of life before the destruction of the temple, which is depicted by the brighter, divinely-favoured colours, and to the description of life after the destruction, when it is represented by black, sooty and gloomy materials. Finally, in Ezekiel 1, the heavy reliance of similes shows that, when describing the divine, human language can only use earthly, precious objects as a comparison. Descriptions of brightness and luminosity are use reinforcing the idea that radiance is part of ancient colour understanding. Colour, radiance and materiality are the very bridge between human and the divine. Humans have an imperfect sensory awareness, but understanding carefully selected colours and materials allows them to get closer to God. However, when it comes to describing YHWH himself, colour language fails. Authors resort to similes, likening earthly materials to the experience to try and comprehend the divine.

The discoveries made in this study are based on key ideas on colour perception in Homer and Herodotus. Using the Greek corpora as points of comparison highlighted key patterns and enabled their application to the Hebrew Bible. This ultimately broadened our understanding of colour in the biblical texts. Commonalties were found in all three corpora; including the material use of "sea-purple" in relation to garments and clothing. Homeric epic uses "sea-purple" and its chaotic, troubling connotations to describe hearts, blood, and death. For both Homer and Herodotus, the body and the surrounding environment were fundamental to experiencing colour. Homer used colour to describe the natural body (for example, bright/dark

eyes, dark hair and skin, "white" teeth, bones and bodies), and Herodotus the unnatural body (for example, a "white" tunic, "purple" robes, "emerald" seals). The coloured materials were used to portray ideas about wealth, social and military power, and heroic social status. In addition, "sea-purple" related directly to the origins of the sea and the divine. The πορφυρεος sea reflects battles and wars, representing trouble and danger and the gods' control of the chaos of the sea.

Another key argument built on a nineteenth-century idea, namely that Greek colour perception was founded upon brightness and luminosity. Colour categorisation in the Hebrew Bible, includes these terms, but is not dominated by it. Colour was used as more than just a hue; it played a key role in the narrative and the overall situation. Homer and Herodotus showed the significance of how lightness interacted with darkness, how the body was central to colour perception, how materials semiotically represented key ideas, and how these key ideas revealed how people engaged with these coloured materials. Studying colour in Homeric epic and Herodotus' *Histories* allowed for an effective comparison between poetry and prose.

By applying these notions to the Hebrew Bible, this thesis has demonstrated that colour in the biblical texts was not an abstraction but a permeating force that manifests through material phenomena. It too, centres on the body, as Geiger anticipated in noting faces turning "green" with fear. Colour is also interconnected with broader, cultural themes in the Hebrew Bible, such as emotions and the senses. Colour also coincides with the Hebrew Bible's understanding of beauty, involving both male and female characters. Most theologically significant, is the relationship of colour to the divine. YHWH plays a significant role in choosing colours for the High Priest's garments, gifting his bride with lavished coloured fabrics, striking people with a white skin disease or green mildew, or taking away luxurious materials and replacing them with

soot and blackness. YHWH divinely approves the use of "sea-purple" in key contexts like the Tabernacle/Temple texts and the making of the High Priest's regalia. Putting on "sea-purple" garments in the Hebrew Bible was done for protection – protecting oneself from YHWH when one interacts with him. תכלת, in particular, was used to get closer to YHWH. Colour also reveals the destiny of characters and places, such as the downfall of Esau and Tyre, and the strength of David. This study has argued that the conceptualisation of colour reflects cultural values and priorities. In doing so, it offers insights into the thinking of ancient societies, and the association of colour with specific ideas, experiences and symbols.

The questions explored in this project have not exhausted chromatic studies from a linguistic, comparative or semantic point of view. In developing the idea that colour and materiality are fundamentally linked, this study has emphasised the value of coloured materials, presenting them and their cultural connotations as part of larger narrative devices within the Hebrew Bible. Yet, the Hebrew Bible remains to be further compared to other ancient texts, languages or disciplines, such as the LXX and the ancient Near East, Latin or art history.

Moreover, a comparative study is *not* mono-directional. What we now know about colour perception in the Hebrew Bible can be applied back to ancient Greek texts, invoking new questions. Colour studies have a long tradition in the interpretation of Homeric epic and early Greek literature; hence it was a plausible place to start in an attempt to understand colour in the Hebrew Bible. Insights from this thesis and analyses of colour in the biblical texts could be brought back into conversations with Greek material. This reflection could also extend to other Greek texts too. For example, Ezekiel 1 demonstrated coloured materials play a significant role in descriptions of the divine. In the ancient Near Eastern religions, gods were understood as radically different from human beings; they could have multiple bodies and fluid selves,

existing simultaneously in several bodies. Greek culture, however, provides no evidence that multiple objects could contain the presence of a particular deity at any one moment; deities were distinct from each other. In this respect, there was a basic resemblance between mortals and immortals, whereas the ancient Near East radically contrast them.[1] This contrast, therefore, poses further questions into Greek conceptualisations of the divine: like in the biblical texts, is there a difference in use and understanding between colour terms that describe human bodies compared to colour terms that describe gods?

Finally, colour perception is a starting point for the ways that touch, taste, smell or even hearing perform significant functions in the Hebrew Bible. The impact of researching ancient colour and sensory perceptions therefore, extends far beyond historical and psychological awareness. The Hebrew Bible used colour to create a sensory experience for the reader; it employed the cultural associations of particular material phenomena to weave a complex tapestry, expressing identities, theologies, and nuanced meaning. Culture impacts language, thought and experience. The texts therefore are not just evidence for contemporary sensory experience: they themselves perform a formative, didactic role in shaping their audience's language, experience and understanding, prompting them to think in creative new ways about their own bodies, the environment in which they live, and their relationship with the divine.

[1] Sommer, *Bodies*, 12.

Appendices

https://ellena-lyell.herokuapp.com

To download and view the Appendices, please click on the above link and enter the following:

User: ColourandCulture

Password: PhD123

Thank you ☺

Bibliography

Aaron, David H. *Biblical Ambiguities: Metaphor, Semantics, and Divine Imagery*. Leiden: Brill, 2001.

Ackerman, Susan. *Under Every Green Tree: Popular Religion in Sixth-Century Judah*. HSM 46. Winona Lake, IN: Eisenbrauns, 2001.

Aitken, James. *The Semantics of Blessing and Cursing in Ancient Hebrew*. ANES 23. Louvain: Peeters, 2007.

Aitken, K.T. "Proverbs." Pages 405–22 in *The Oxford Bible Commentary*. Edited by John Barton and John Muddiman. Oxford: Oxford University Press, 2001.

Allen, Grant. *The Colour Sense: its Origin and Development*. London: Trübner, 1879.

Allen, James P. *The Ancient Egyptian Language: An Historical Study.* New York: Cambridge University Press, 2013.

Allen, Leslie C. "The Structure and Intention of Ezekiel I." *VT* 43 (1993): 145–61.

Almalech, Mony. "The Eight Kinds of Linen in the Old Testament." *Lexia: Journal of Semiotics* 7-8 (2011): 325–64.

Alter, Robert. *Genesis: Translation and Commentary.* New York: W.W. Norton, 1996.

_____. *The Art of Biblical Narrative*. London: Basic Books, 1981.

Alter, Robert., and Frank Kermode, eds. *The Literary Guide to the Bible*. London: Collins, 1987.

Ames, Frank Ritchel. "The Red-Stained Warrior in Ancient Israel." Pages 83–109 in *Warfare, Ritual, and Symbol in Biblical and Modern Contexts*. Edited by Brad E. Kelle, Frank Ritchel Ames and Jacob L. Wright. Atlanta, GA: SBL Press, 2014.

Anderson, Bradford A. *Brotherhood and Inheritance: A Canonical Reading of the Esau and Edom Traditions.* New York: T&T Clark, 2011.

_____. "The Inversion of the Birth Order and the Title of the Firstborn." *VT* 60 (2010): 655–8.

Anderson, Gary A. *A Time to Mourn, A Time To Dance: The Expression of Grief and Joy in Israelite Religion*. Pennsylvania, PA: Pennsylvania State University Press, 1991,

Anderson, Jeff S. "The Social Function of Curses in the Hebrew Bible." *ZAW* 110 (2009): 223–37.

Andrason, Alexander. "The Panchronic *yiqtol*: Functionally Consistent and Cognitively Plausible." *JHebS* 10 (2010): 1–63.

André, Jacques. *Étude sur les Termes de Couleur dans la Langue Latine*. Paris: Libraire C. Klincksrieck, 1949.

Andruska, Jennifer. "The Strange Use of דגל in Song of Songs 5:10." *VT* 68 (2017): 1–7.

_____. *Wise and Foolish Love in the Song of Songs*. OtSt 75. Leiden: Brill, 2019.

Arbeitman, Yoël. "Tamar's Name or is It? (Gen 38)." *ZAW* 112 (2000): 341–55.

Arieti, James A. "Achilles' Guilt." *CJ* 80 (1985): 193–203.

Artzi, Pinḥas. "On the Cuneiform Background of the Northwest-Semitic Form of the Word *brḏl*, *b*(*a*)*rz*(*e*)*l*, 'iron'." *JANES* 28 (1969): 268–70.

Ash, Paul S. *David, Solomon and Egypt: A Reassessment.* Sheffield: Sheffield Academic Press, 1999.

Asheri, David. "General Introduction." Pages 1–57 in *A Commentary on Herodotus: Books I-IV*. Edited by Oswyn Murray and Alfonso Moreno. Oxford: Oxford University Press, 2007.

Aster, Shawn Zelig. "Ezekiel's Adaptation of Mesopotamian '*Melammu*'." *WO* 45 (2015): 10–21.

_____. *The Unbeatable Light: Melammu and Its Biblical Parallels*. AOAT 384. Münster: Ugarit-Verlag, 2011.

Aubet, Maria Eugenia. *The Phoenicians and the West: Politics, Colonies and Trade*. 2nd ed. Cambridge: Cambridge University Press, 2003.

Auerbach, Erich. *Mimesis: The Representation of Reality in Western Literature*. Princeton, NJ: Princeton University Press, 2013.

Autenrieth, Georg. *A Homeric Dictionary for Schools and Colleges.* Translated by Robert P. Keep. New York: Harper & Brothers, 1895.

Avioz, Michael. "The Motif of Beauty in the Books of Samuel and Kings." *VT* 59 (2009): 341–59.

Avrahami, Yael. *The Senses of Scripture: Sensory Perception in the Hebrew Bible*. LHBOTS 545. London: Bloomsbury T&T Clark, 2014.

Bader, Mary Anna. *Sexual Violation in the Hebrew Bible: A Multi-Methodological Study of Genesis 34 and 2 Samuel 13.* New York: Peter Lang, 2006.

Baines, John. "Color Terminology and Color Classification: Ancient Egyptian Color Terminology and Polychromy." *AA* 87 (1985): 282–97.

Baker, D.W. "Tarshish." *ABD* 6:332–3.

Baran, Neculai V. "Les Caractéristiques essentielles du vocabulaire chromatique latin (aspect general, étapes de développement, sens figures, valeur stylistique, circulation)." *Aufstieg und Niedergang der Römischen Welt II* 29 (1983): 321–411.

Barber, E.J.W. *Prehistoric Textiles: The Development of Cloth in the Neolithic and Bronze Ages*. Princeton, NJ: Princeton University Press, 1991.

Barr, James. "Etymology and the Old Testament." Pages 1–28 in *Language and Meaning: Studies in Hebrew Language and Biblical Exegesis*. Edited by James Barr. OtSt 19. Leiden: Brill, 1974.

_____. *The Semantics of Biblical Language*. London: Oxford University Press, 1978.

Barton, John. “Historical-Critical Approaches.” Pages 9–20 in *The Cambridge Companion to Biblical Interpretation*. Edited by John Barton. Cambridge: Cambridge University Press, 1998.

_____. *Joel and Obadiah: A Commentary*. OTL. Louisville, KY: Westminster John Knox, 2011.

_____. *The Nature of Biblical Criticism*. London: Westminster John Knox, 2007.

Basson, Alec. “Just Skin and Bones: The Longing for Wholeness of the Body in the Book of Job.” *VT* 58 (2008): 287–99.

Batten, Alicia J. “Clothing and Adornment.” *BTB* 40 (2010): 148–59.

Baumann, Stefan. *Schatzkammern. Ihre Dekoration und Raumkonzeption in ägyptischen Tempeln der griechisch-römischen Zeit*. Studien zur spätägyptischen. Wiesbaden: Harrassowitz Verlag, 2018.

Baur, Max. “Härte.” Pages 33–8 in *Edelsteinkunde*. Edited by Max Baur. Leipzig: Chr. Herm. Tauchnitz, 1909.

Beckman, Gary. *Hittite Diplomatic Texts.* Atlanta, GA: Scholars Press, 1996.

Bélis, Mireille. “The Use of Purple in Cooking, Medicine, and Magic. An Example of Interference by the Imaginary in Rational Discourse.” Pages 295–316 in *From Myth to Reason? Studies in the Development of Greek Thought*. Edited by R. Buxton. Oxford: Oxford University Press, 1998.

Bellmer, Elizabeth Henry. “The Statesman and the Ophthalmologist: Gladstone and Magnus on the Evolution of Human Colour Vision, One Small Episode of the Nineteenth–century Darwinian Debate.” *Annals of Science* 56 (1999): 25–45.

Bergant, Dianne. *Genesis: In the Beginning.* Collegeville, MN: Liturgical Press, 2013.

Berlin, Adele. *Lamentations: A Commentary*. OTL. Louisville, KY: Westminster John Knox, 2002.

Berlin Brent., and Paul Kay. *Basic Color Terms: Their Universality and Evolution*. Berkeley, CA: University of California Press, 1969.

Berquist, Jon L. *Controlling Corporeality: The Body and the Household in Ancient Israel*. New Brunswick, NJ: Rutgers University Press, 2002.

Berquist Jon L., and Claudia V. Camp, eds. *Constructions of Space I: Theory, Geography, and Narrative*. LHBOTS 481. New York: T&T Clark, 2007.

_____. *Constructions of Space II: The Biblical City and Other Imagined Spaces*. LHBOTS 490. New York: T&T Clark 2008.

Beyer. "חור." *TDOT* 16.

Beyse. "שׁני." *TDOT* 15:339–42.

Bienkowski, Piotr., and Eveline van der Steen. "Tribes, Trade, and Towns: A New Framework for the Late Iron Age in Southern Jordan and the Negev." *BASOR* 323 (2001): 21–47.

Biggam, C.P. *The Semantics of Colour: A Historical Approach*. Cambridge: Cambridge University Press, 2012.

Bimson, Mavis. "Cosmetic Pigments from the 'Royal Cemetery' at Ur." *Iraq* 42 (198): 75–7.

Bledstein, Joseph Adrien Janis. "Tamar and the 'Coat of Many Colors'." Pages 65–83 in *Samuel and Kings: A Feminist Companion to the Bible (Second Series)*. Edited by Athalya Brenner. Sheffield: Sheffield Academic Press, 2000.

Blenkinsopp, Joseph. *Ezekiel*. Louisville, KY: Westminster John Knox, 1990.

_____. *Isaiah 1–39*. AB 19. New York: Doubleday, 2000.

Block, Daniel I. "Text and Emotion: A Study in the "Corruptions" in Ezekiel's Inaugural Vision (Ezekiel 1:4–28)." *CBQ* 50 (1988): 418–42.

_____. *The Book of Ezekiel: Chapters 1–24*. NICOT. Grand Rapids, MI: Eerdmans, 1997.

_____. *The Book of Ezekiel: Chapters 25–48*. NICOT. Grand Rapids, MI: Eerdmans, 1998.

_____. "The God Ezekiel Creates." Pages 162–92 in *The God Ezekiel Creates*. Edited by Paul M. Joyce and Dalit Rom-Shiloni. LHBOTS 607. London: Bloomsbury T&T Clark, 2015.

_____. "'What Do These Stones Mean?' The Riddle of Deuteronomy 27." *JETS* 56 (2013): 17–41.

Blondell, Ruby. *Helen of Troy: Beauty, Myth, Devastation.* Oxford: Oxford University Press, 2013.

Blum, Hartmut. *Purpur also Statussymbol in der Griechischen Welt*. Bonn: Habelt, 1998.

Boardman, J. "Scarabs and Seals: Greek, Punic and Related Types." Pages 99–100 in *Tharros: A Catalogue of Material in the British Museum from Phoenician and Other Tombs at Tharros, Sardinia*. Edited by R.D. Barnett and C. Mendleson. London: British Museum, 1987.

Boas, Franz. "The Methods of Ethnology." *AA* 22 (1920): 311–21.

Bodi, D. *The Book of Ezekiel and the Poem of Erra*. OBO 104. Göttingen: Vandenhoeck & Ruprecht, 1991.

Boedeker, Deborah. "Epic Heritage and Mythical Patterns in Herodotus." Pages 97–116 in *Brill's Companion to Herodotus.* Edited by Egbert J. Bakker, Irene J.F. de Jong and Hans van Wees. Leiden: Brill, 2002.

Boman, Thorleif. *Das hebräische Denken im Vergleich mit dem Griechischen*. 5th ed. Göttingen: Vandenhoeck & Ruprecht, 1968.

Botterweck, G. Johannes., and Helmer Ringgren. *Theological Dictionary of the Old Testament*. Translated by John T. Willis et al. 16 vols. Grand Rapids, MI: Eerdmans, 1974–2018.

Bowen, Nancy R. *Ezekiel*. AOTC. Nashville, TN: Abingdon, 2010.

Bradley, Mark. *Colour and Meaning in Ancient Rome*. Cambridge: Cambridge University Press, 2009.

_____. “Colour as a Synaesthetic Experience in Antiquity,” Pages 127–40 in *Synaesthesia and the Ancient Senses.* Edited by Shane Butler and Alex Purves. New York: Routledge, 2013.

_____. “The Colour ‘Blush’ in Ancient Rome.” Pages 117–21 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. Oxford: John and Eric Hedges, 2004.

Brenner, Athalya. “Aromatics and Perfumes in the Song of Songs.” *JSOT* 25 (1983): 75–81.

_____. *Colour Terms in the Old Testament*. JSOTSup 21. Sheffield: JSOT Press, 1982.

_____. “‘Come Back, Come Back the Shulammite’ (Song of Songs 7.1-10): A Parody of the *waṣf* Genre.” Pages 275–93 in *On Humor and the Comic in the Hebrew Bible*. Edited by Yehuda T. Radday and Athalya Brenner. BLS 23. Sheffield: Sheffield Academic Press, 1990.

_____. “My Beloved is Fair and Ruddy: On Song of Songs 5.10–11.” *Beth Miqra* 89–90 (1982): 168–73.

_____. “On Colour and the Sacred in the Hebrew Bible.” Pages 200–7 in *The Language of Color in the Mediterranean: An Anthology on Linguistic and Ethnographic Aspects of Color Terms*. Edited by Alexander Borg. Stockholm: Almqvist & Wiksell International, 1999.

_____. “White Textiles in the Old Testament.” *HAR* 4 (1980): 39–44.

Brenner, Athalya,. and Carole Fontaine, eds. *A Feminist Companion to Reading the Bible: Approaches, Methods and Strategies*. FCB 10. Sheffield: Sheffield Academic Press, 1997.

Bridgeman, Jane. “Purple Dye in Late Antiquity and Byzantium.” Pages 159–65 in *The Royal Purple and Biblical Blue: Argaman and Tekhelet. The Study of Chief Rabbi Dr Isaac*

Herzog on the Dye Industries in Ancient Israel and Recent Scientific Contributions. Edited by Ehud Spanier. Jerusalem: Keter, 1987.

Brodie, Thomas L. *Genesis as Dialogue: A Literary, Historical and Theological Commentary.* Oxford: Oxford University Press, 2001.

Bromiley, Geoffery W., ed. *International Standard Bible Encyclopedia.* 4 vols. Grand Rapids, MI: Eerdmans, 1979–1988.

Brøns, Cecilie. "Ancient Colours: Perspectives and Methodological Challenges." Pages 311–337 in *The Value of Colour: Material and Economic Aspects in the Ancient World*. Edited by Shiyanthi Thavapalan and David A. Warburton. Berlin: EditionTopoi, 2019.

_____. *Gods and Garments: Textiles in Greek Sanctuaries from the 7th to the 1st Centuries BC.* Ancient Textile Series 28. Oxford: Oxbow, 2016.

_____. "Sacred Colours: Purple Textiles in Greek Sanctuaries in the Second Half of the 1st Millennium BC." Pages 109–117 in *Treasures from the Sea: Sea-silk and Purple Dye in Antiquity.* Edited by Hedvig Landenius Enegren and Franceso Meo. Oxford: Oxbow Books, 2017.

Brøns, Cecilie., and Kerstin Droß-Krüpe. "The Colour Purple? Reconsidering the Greek Word halourgos (αλουργος) and its Relation to Ancient Textiles." *Textile History* 49 (2018): 22–43.

Brown, John Pairman. *Israel and Hellas: Volume I*. BZAW 231. Berlin: De Gruyter, 1995.

Brown, Francis., S.R. Driver, and Charles A. Briggs. *The Brown-Driver-Briggs Hebrew and English Lexicon*. Peabody, MA: Hendrickson Publishers, 2015, 1906.

Brown, Roger Langham. *Wilhem von Humboldt's Conception of Linguistic Relativity* Netherlands: Mouton & Co., 1967.

Brueggemann, Walter. *Genesis: Interpretation.* Atlanta, GA: John Knox, 1982.

_____. *Isaiah 40–66*. Louisville, KY: Westminster John Knox, 1998.

Bruno, Vincent J. *Form and Colour in Greek Painting.* New York: W.W. Norton, 1977.

Bulakh, Maria. "Basic Color Terms from Proto–Semitic to Old Ethiopic." Pages 247–61 in *Anthropology of Color: Interdisciplinary Multilevel Modeling*. Edited by Robert E. MacLaury, Galina V. Paramei and Don Dedrick. Philadelphia, PA: John Benjamins, 2007.

_____. "Basic Color Terms of Biblical Hebrew in Diachronic Aspect." Pages 181–216 in *Babel und Bibel 3: Annual of Ancient Near Eastern, Old Testament, and Semitic Studies*. Edited by L. Kogan et al. Winona Lake, IN.: Eisenbrauns, 2006.

_____. "Etymological Notes on the Akkadian Colour Terms." Pages 3–17 in *Studia Semitica*. Edited by L. Kogan. Moscow: Russian State University for the Humanities, 2003.

Burke, Brendan. "Purple and Aegean Textile Trade in the Early Second Millennium B.C." Pages 75–82 in *Meletemata: Studies in Aegean Archaeology Presented to Malcolm H. Wiener as He Enters His 65th Year*. Edited by Philip Betancourt, Vassos Karageorghis, Robert Laffineur and Wolf-Dietrich Niemeier. Aegaeum 20. Liege: Université de Liège, 1999.

Burns, Rita J. "Miriam." *ABD* 4:869–70.

Burrell, Kevin. *Cushites in the Hebrew Bible: Negotiating Ethnic Identity in the Past and Present*. Leiden: Brill, 2020.

Burton, Joan B. "Themes of Female Desire and Self-Assertion in the Song of Songs and Hellenistic Poetry." Pages 180–202 in *Perspectives on the Song of Songs*. Edited by Anselm C. Hagedorn. BZAW 346. Berlin: de Gruyter, 2005.

Burton, Marilyn. *The Semantics of Glory: A Cognitive, Corpus-Based Approach to Hebrew Word Meaning*. SSN 68. Leiden: Brill, 2017.

Bush, Frederic. *Ruth/Esther*. WBC 9. Dallas, TX: Word Books, 1996.

Buttrick, George A., ed. *The Interpreter's Dictionary of the Bible*. 4 vols. New York: Abingdon, 1976.

Buxton, Richard. "Similes and Other Likenesses." Pages 139–155 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Byrne, Ryan. "Early Assyrian Contacts with Arabs and the Impact on Levantine Vassal Tribute." *BASOR* 331 (2003): 11–25.

Campbell, Lyle. *Historical Linguistics: An Introduction*. 3rd ed. Cambridge, MA: MIT Press, 2013.

Carroll, John B., ed. *Language, Thought and Reality: Essays by Benjamin Lee Whorf*. Cambridge, MA: MIT Press, 1956.

Cathcart, Kevin J. "Loanwords in Biblical Hebrew and the Dating of Biblical Texts," Pages 45–57 in *Studia Semitica: The Journal of Semitic Studies Jubilee Volume*. Edited by Philip S. Alexander et al. Oxford: Oxford University Press, 2005.

Chapman, Stephen B., and Marvin A. Sweeney., eds. *The Cambridge Companion to the Hebrew Bible/Old Testament*. New York: Cambridge University Press, 2016.

Chavalas, M.W. "Assyriology and Biblical Studies: A Century of Tension." Pages 21–67 in *Mesopotamia and the Bible*. Edited by M.W. Chavalas and K.L. Younger Jr. Grand Rapids, MI: Baker, 2002.

_____. "The Comparative Use of Ancient Near Eastern Texts in the Study of the Hebrew Bible." *Religion Compass* 5 (2011): 150–65.

Childs, Brevard S. "A Traditio-Historical Study of the Reed Sea Tradition." *VT* 20 (1970): 406–18.

_____. *Exodus*. OTL Louisville, KY: Westminster John Knox, 1974.

_____. *Isaiah*. OTL. Louisville, KY: Westminster John Knox, 2001.

Christie Jr., William M. "Synchronic, Diachronic, and Panchronic Linguistics." Pages 1–8 in *Papers from the Third International Conference of Historical Linguistics*. Edited by J. Peter Maher, Allan R. Bomhard and E.F. Konrad Koerner. Amsterdam: John Benjamins, 1982.

Clarke, Michael. "The Semantics of Colour in the Early Greek Word–Hoard." Pages 131–39 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. Oxford: John and Eric Hedges, 2004.

Clemens, David M. Review of *Akkadian Loanwords in Biblical Hebrew,* by Paul V. Mankowski. *JNES* 62 (2003): 290–4.

Clements, Ronald E. *Ezekiel.* Louisville, KY: Westminster John Knox, 1996.

_____. *God and the Temple: The Idea of Divine Presence in Ancient Israel*. Oxford: Basil Blackwell, 1965.

Clifford, Richard J. *Proverbs*. OTL. Louisville, KY: Westminster John Knox, 1994.

Clines, David J.A., ed. A. *Dictionary of Classical Hebrew.* 9 vols. Sheffield: Sheffield Phoenix Press, 1993–2014.

Clines, David J. *Job 21–37*. WBC 18A. Nashville, TN: Thomas Nelson, 2006.

Cohen, Chaim. *Biblical Hapax Legomena in the Light of Akkadian and Ugaritic.* Missoula, MT: Scholars Press, 1978.

Cohen, Nava. "Psalm 92: Structure and Meaning." *ZAW* 125 (2013): 593–606.

Cohen, Norman J. *Masking and Unmasking Ourselves: Interpreting Biblical Texts on Clothing and Identity.* Woodstock, VT.: Jewish Lights, 2015.

Collins, John J. *Daniel*. Hermeneia. Minneapolis, MN: Fortress, 1993.

_____. *Introduction to the Hebrew Bible*. Minneapolis, MN: Fortress, 2014.

Collins, T. "The Physiology of Tears in the Old Testament: Part I." *CBQ* 33 (1971): 18–38.

Copher, Charles B. *Black Biblical Studies: An Anthology of Charles B. Copher*. Chicago, IL: Black Light Fellowship, 1993.

_____. "The Black Presence in the Old Testament." Pages 146–65 in *Stony the Road We Trod: African American Biblical Interpretation*. Edited by Cain Hope Felder. Minneapolis, MN: Fortress, 1991.

Copisarow, Maurice. "The Ancient Egyptian, Greek and Hebrew Concept of the Red Sea." *VT* 12 (1962): 1–13.

Crenshaw, James L. *Joel: A New Translation with Introduction and Commentary*. AB 24C. New York: Doubleday, 1995.

Crielaard, Jan Paul. "Homer, History and Archaeology: Some Remarks on the Date of the Homeric World." Pages 201–88 in *Homeric Questions: Essays in Philology, Ancient History and Archaeology, Including the Papers of a Conference Organized by the Netherlands Institute at Athens (15 May 1993)*. Edited by Jan Paul Crielaard. Amsterdam: Gieben, 1995.

Croom, Alexandra T. *Roman Clothing and Fashion.* Stroud: Tempus, 2010.

Crouch, C.L. "Ezekiel's Oracles against the Nations in Light of a Royal Ideology of Warfare." *JBL* 130 (2011): 473–92.

_____. *The Making of Israel: Cultural Diversity in the southern Levant and the Formation of Ethnic Identity in Deuteronomy*. VTSup 162. Leiden: Brill, 2016.

_____. *War and Ethics in the Ancient Near East: Military Violence in Light of Cosmology and History*. BZAW 407. Berlin: de Gruyter, 2009.

Cunliffe, Richard John. *A Lexicon of the Homeric Dialect.* Norman, OK: University of Oklahoma Press, 1963.

Daube, David. "How Esau Sold His Birthright." *The Cambridge Law Journal* 8 (1942): 70–5.

Day, John. "Gibeon and Gibeonites in the Old Testament." Pages 113–38 in *Reflection and Refraction: Studies in Biblical Historiography in Honour of A. Graeme Auld*. Edited by Robert Rezetko, Timothy Lim and Brian Aucker. VTSup 113. Leiden: Brill, 2007.

_____. *God's Conflict with the Dragon and the Sea: Echoes of a Canaanite Myth in the Old Testament*. UCOP 35. Cambridge: Cambridge University Press, 1985.

Day, Linda., and Carolyn Pressler, eds. *Engaging the Bible in a Gendered World: An Introduction to Feminist Biblical Interpretation in Honor of Katharine Doob Sakenfeld*. Louisville, KY: Westminster John Knox, 2006.

Deacy, Susan., and Alexandra Villing. "Athena Blues? Colour and Divinity in Ancient Greece." Pages 85–91 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. Oxford: John and Eric Hedges, 2004.

Dedrick, Don. *Naming the Rainbow: Colour Language, Colour Science and Culture*. Dordrecht: Kluwer Academic, 1998.

Deutscher, Guy. *Through the Language Glass: How Words Colour Your World*. London: Arrow, 2010.

Dewald, Carolyn, ed. *Herodotus: The Histories, A New Translation by Robin Waterfield.* Oxford: Oxford University Press, 1998.

Dewrell, Heath. "How Tamar's Veil Became Joseph's Coat: The Meaning of *kĕtōnet* (*hap*)*passim*." *Biblica* 87 (2016): 161–74.

Diakonoff, I.M. "The Naval Power and Trade of Tyre." *Israel Exploration Journal* 43 (1992): 168–93.

van Dijk, H.J. *Ezekiel's Prophecy on Tyre (Ez. 26,1–28,19): A New Approach*. BibOr 20. Rome: Pontifical Biblical Institute, 1968.

Dobbs-Allsopp, F.W. "'I Am Black and Beautiful': The Song, Cixous, and Écriture Féminine." Pages 128–40 in *Engaging the Bible in a Gendered World: An Introduction to Feminist*

Biblical Interpretation in Honor of Katharine Doob Sakenfeld. Edited by Linda Day and Carolyn Pressler. Louisville, KY: Westminster John Knox, 2006.

_____. *Lamentations.* Louisville, KY: Westminster John Knox, 2002.

_____. "Late Linguistic Features in the Song of Songs." Pages 27–77 in *Perspectives on the Song of Songs*. Edited by Anselm C. Hagedorn. BZAW 346. Berlin: de Gruyter, 2005.

_____. "Rethinking Historical Criticism." *BibInt* 7 (1999): 235–71.

_____. "Tragedy, Tradition, and Theology in the Book of Lamentations." *JSOT* 74 (1997): 29–60.

Dobbs-Allsopp, F.W., and Elaine T. James. "The Ekphrastic Figure(s) in Song 5:10–16." *JBL* 138 (2019): 297–323.

Donlan, Walter. "The Homeric Economy." Pages 649–67 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Douglas, Mary. *Leviticus as Literature.* Oxford: Oxford University Press, 1999.

_____. *Purity and Danger: An Analysis of Concept of Pollution and Taboo*. London: Routledge, 1966.

Dowden, Ken. "The Epic Tradition in Greece." Pages 188–205 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Dozeman, Thomas B., Konrad Schmid and B.J. Schwartz, eds. *The Pentateuch: International Perspectives on Current Research*. Tübingen: Mohr Siebeck, 2011.

Drews, Robert. *The Greek Accounts of Eastern History.* Washington, DC: Center for Hellenic Studies, 1973.

Dryness, William A. "Aesthetics in the Old Testament: Beauty in Context." *JETS* 28 (1985): 421–32.

Durham, John I. *Exodus*. WBC 3. Waco, TX: Word, 1987.

Durlesser, James Arthur. *The Metaphorical Narratives in the Book of Ezekiel*. Lewiston, NY: Mellen, 2006.

Ede, Franziska. "The Garment Motif in Gen. 37–39." Pages 389–402 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Edgeworth, Robert J. "Does "*Purpureus*" Mean "Bright"?." *Glotta* 57 (1979): 281–91.

_____. "*Luteus*: Pink or Yellow?." *Glotta* 63 (1985): 212–220.

_____. "What color is "*Ferrugineus*?"." *Glotta* 56 (1978): 297–305.

Edwards, Douglas. "Dress and Ornamentation." *ABD* 2:232–8.

Edwards, Mark W. *The Iliad: A Commentary: Volume V: Books 17–20.* Cambridge: Cambridge University Press, 1991.

Eilberg-Schwartz, Howard. *The Savage in Judaism: An Anthropology of Israelite Religion and Ancient Judaism*. Bloomington, IN: Indiana University Press, 1990.

Ekshut, Mats. "The Importance of Loanwords for Dating Biblical Hebrew Texts." Pages 8–23 in *Biblical Hebrew: Studies in Chronology and Typology.* Edited by Ian Young. New York: T&T Clark, 2003.

Ellenbogen, Maximilian. *Foreign Words in the Old Testament: Their Origin and Etymology.* London: Luzac & Co., 1962.

Elliott, Charlene. "Purple Pasts: Color Codification in the Ancient World." *Law and Social Inquiry* 33 (2008): 173–94.

Elsner, Otto., and Ehud Spanier. "The Past, Present and Future of *Tekhelet*." Pages 167–178 in *The Royal Purple and Biblical Blue: Argaman and Tekhelet. The Study of Chief Rabbi Dr Isaac Herzog on the Dye Industries in Ancient Israel and Recent Scientific Contributions*. Edited by Ehud Spanier. Jerusalem: Keter, 1987.

Emerton, J.A. "The Meaning of *'abnê-qōdeš* in Lamentations 4:1." *ZAW* 79 (1967): 233–6.

Erbse, H. *Studien zum Verständnis Herodots*. Berlin: de Gruyter, 1992.

Exum, J. Cheryl. *Song of Songs*. OTL. Louisville, KY: Westminster John Knox, 2005.

Felder, Cain Hope. "Race, Racism, and the Biblical Narratives." Pages 127–45 in *Stony the Road We Trod: African American Biblical Interpretation*. Edited by Cain Hope Felder. Minneapolis, MN: Fortress, 1991.

Ferretter, Luke. "The Power and the Glory: The Aesthetics of the Hebrew Bible." *Literature & Theology* 18 (2004): 123–38.

Fewell, Danna Nolan., and David M. Gunn. *Gender, Power, and Promise: The Subject of the Bible's First Story*. Nashville, TN: Abingdon, 1993.

Finitsis, Antonios. "For All Her Household are Clothed in Crimson." Pages 1–10 in *Dress and Clothing in the Hebrew Bible: "For All Her Household Are Clothed In Crimson"*. Edited by Antonios Finitsis. London: T&T Clark, 2019.

Fischer, Irmtraud. "The Authority of Miriam: A Feminist Reading of Numbers 12 Prompted by Jewish Interpretation." Pages 159–75 in *Exodus to Deuteronomy: A Feminist Companion to the Bible (Second Series)*. Edited by Athalya Brenner. FCB 5. Sheffield: Sheffield Academic, 2000.

Fischer, Stefan. "Women's Dress Codes in the Book of Proverbs." Pages 543–56 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Fokkelman, J.P. *Narrative Art in Genesis*. Assen: Van Gorcum, 1975.

Foley, John. "Epic as Genre." Pages 171–88 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

_____. "Oral Tradition and Its Implications," Pages 146–73 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Foley, John Miles., ed. *A Companion to Ancient Epic*. Oxford: Blackwell, 2005.

Ford, Andrew. “Epic as Genre.” Pages 396–414 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

_____. *Homer: The Poetry of the Past.* London: Cornell University Press, 1992.

Fornara, Charles. *Herodotus: An Interpretative Essay*. Oxford: Clarendon Press, 1971.

Fountoulakis, Andreas. “The Colours of Desire and Death: Colour Terms in Bion’s *Epitaph on Adonis*.” Pages 110–16 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. BARIS 1267. Oxford: John and Erica Hedges, 2004.

Fowler, Robert. “Herodotos and Athens.” Pages 305–18 in *Herodotus and his World: Essays from a Conference in Memory of George Forrest*. Edited by Peter Derow and Robert Parker. Oxford: Oxford University Press, 2003.

_____. “Introduction.” Pages in 1–10 *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

_____. “The Homeric Question” Pages 220–34 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Fox, Michael V. *Proverbs 10–31*. AB 18B. London: Yale University Press, 2009.

Freedman, David Noel., eds. *Eerdmans Dictionary of the Bible*. Grand Rapids, MI: Eerdmans, 2000

Fronzaroli, P. “Sulla Struttura dei colori in Ebraico Biblico.” *Studi Linguistici in onore di Vittore Pisani* 1 (1969): 377–89.

Fuchs, Esther. *Sexual Politics in the Biblical Narrative: Reading the Hebrew Bible as a Woman*. JSOTSup 310. Sheffield: Sheffield Academic Press, 2000.

Funke, Melissa. “Colourblind: The Use of Greek Colour Terminology in Cultural Linguistics in the Late Nineteenth and Early Twentieth Centuries.” Pages 255–76 in *Brills Companion to Classics and Early Anthropology*. Edited by Emily Varto. Leiden: Brill, 2018.

Gabel, John B., and Charles B. Wheeler. *The Bible as Literature: An Introduction*. Oxford: Oxford University Press, 1986.

Gage, John. *Colour and Culture: Practice and Meaning from Antiquity to Abstraction*. Berkley, CA: University of California Press, 1993.

Gansell, Amy Rebecca. "The Iconography of Ideal Feminine Beauty Represented in the Hebrew Bible and Iron Age Levantine Sculpture." Pages 46–70 in *Image, Text, Exegesis: Iconographic Interpretation and the Hebrew Bible* Edited by Izaak J. de Hulster and Joel M. LeMon. London: Bloomsbury, 2014.

Garber P.L., and R.W. Funk. "Jewels and Precious Stones." *IDB* 2:898–905.

Garrett, Duane., and Paul R. House. *Song of Songs/Lamentations*. WBC 23B. Nashville, TN: Thomas Nelson, 2004.

Gault, Brian P. *Body as Landscape, Love As Intoxication: Conceptual Metaphors in the Song of Songs*. AIL 36. Atlanta, GA: SBL Press 2019.

Geiger, Lazarus. "On Colour-Sense in Primitive Times and its Development." Pages 48–63 in *Contributions to the History of the Development of the Human Race: Lectures and Dissertations*. Edited by L. Geiger. Translated by David Asher. Boston, MA: Houghton, Mifflin & Co., 1880.

_____. "Ueber den Farbensinn der Urzeit und Seine Entwicklung. Gesprochen auf der Versammlung deutscher Naturforscher in Frankfurt a. M., den 24 September 1867." Pages 45–60 in *Zur Entwicklungsgeschichte Der Menschheit*. Edited by L. Geiger. Stuttgart: Verlag der Cotta'schen Buchhandlung, 1871.

_____. *Ursprung und Entwickelung der menschlichen Sprache und Vernunft*. Vol. 2. Stuttgart: Verlag der Cotta'schen Buchhandlung, 1872.

George, Mark K., ed. *Constructions of Space IV: Further Developments in Examining Ancient Israel's Social Space*. LHBOTS 569. New York: T&T Clark, 2013.

Gerhards, Meik. “Clothing and Nudity in the Song of Songs.” Pages 557–68 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Gerstenberger, Erhard S. *Leviticus: A Commentary*. OTL. London: Westminster John Knox, 1993.

Gesenius, W., and F. Buhl. *Hebräische und aramäisches Handwörterbuch über das Alte Testament.* Leipzig: Verlag von F.C.W. Vogel, 1905.

Geyer, John B. “Ezekiel 27 and the Cosmic Ship.” Pages 105–26 in *Among the Prophets: Language, Image and Structure in the Prophetic Writings*. Edited by Philip R. Davies and David J.A. Clines. JSOTSup 144. Sheffield: Sheffield Academic Press, 1993.

_____. “Mythology and Culture in the Oracles against the Nations.” *VT* 36 (1986): 126–45.

Gilders, William K. *Bloody Ritual in the Hebrew Bible: Meaning and Power*. Baltimore, MD.: John Hopkins University Press, 2004.

Gilmore, E.L. "Which Were the Original Twelve Gemstones of the First Biblical Breastplate?" *The Lapidary Journal* 22 (1968): 1130–4.

Gindin, Thamar E. “Persian Loanwords,” Pages 66–70 in *Encyclopedia of Hebrew Language and Linguistics: Volume 3: P-Z*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Gladstone, William Ewart. *Studies on Homer and the Homeric Age: Volume III*. Oxford: Oxford University Press, 1858.

_____. “The Colour Sense.” *The Nineteenth Century* 2 (1877): 366–388.

Goethe, J.W. *Zur Farbenlehre*. Tübingen: Cotta, 1810.

Golani, Amir. *Jewelry from the Iron Age II Levant.* Göttingen: Vandenhoeck & Ruprecht, 2013.

Gordon, Cyrus H. *Before the Bible: The Common Background of Greek and Hebrew Civilisations*. London: Collins, 1962.

_____. “Homer and the Bible: The Origin and Character of East Mediterranean Literature.” *HUCA* 26 (1955): 43–108.

_____. "תרשיש." *IDB* 4:517.

_____. *Ugaritic Textbook.* Rome: Pontifical Biblical Institute, 1965.

Görg, Manfred. "Der gefärbte Rock Josefs." *BN* 102 (200): 9–12.

Gottwald, Normal K. "Social Class as an Analytic and Hermeneutical Category in Biblical Studies." *JBL* 112 (1993): 3–22.

_____. "Sociology of Ancient Israel." *ABD* 6:79–89.

Grabbe, Lester L. "The Reality of the Return: The Biblical Picture Versus Historical Reconstruction." Pages 292–308 in *Exile and Return: The Babylonian Context*. Edited by Jonathan Stökl and Caroline Waerzeggers. BZAW 478. Berlin: de Gruyter, 2015.

Gradwohl, Roland. *Die Farben im Alten Testament: eine terminologische Studie*. Berlin: Töpelmann, 1963.

Grand-Clément, Adeline. "Gold and Purple: Brilliance, Materiality and Agency of Color in Ancient Greece." Pages 121–137 in *Essays in Global Color History*. Edited by Rachael B. Goldman. Piscataway, NJ: Gorgias, 2016.

_____. "Histoire du paysage sensible des Grecs à l'époque archaïque: Homère, les couleurs et l'exemple de *porphureos*." *Pallas* 65 (2004): 123–43.

_____. *La fabrique des couleurs. Histoire du paysage sensible des grecs anciens*. Paris: De Boccard, 2011.

Gravett Sandra L., et al. *An Introduction to the Hebrew Bible: A Thematic Approach.* Louisville, KY: Westminster John Knox, 2008.

Graziosi, Barbara. *Homer*. Oxford: Oxford University Press, 2016.

_____. *Inventing Homer: The Early Reception of Epic*. Cambridge: Cambridge University Press, 2002.

Graziosi, Barbara., and Johannes Haubold. *Homer: The Resonance of Epic*. London: Bloomsbury, 2005.

Greenberg, Moshe. *Ezekiel 1–20*. AB 22. Garden City, New York: Doubleday, 1983.

_____. *Ezekiel 21–37*. AB 22A. New York: Doubleday, 1997.

Greenspahn, Frederick E. *An Introduction to Aramaic*. Corrected 2nd ed. Atlanta, GA: SBL Press, 2007.

_____. *Hapax Legomena in Biblical Hebrew: A Study of the Phenomenon and Its Treatment Since Antiquity with Special Reference to Verbal Forms.* Eugene, OR: Wipf and Stock, 2016.

_____. *When Brothers Dwell Together: The Preeminence of Younger Siblings in the Hebrew Bible.* Oxford: Oxford University Press, 1994.

Greenstein, Edward L. "Metaphors of Illness and Wellness in Job." Pages 39–50 in *"When the Morning Stars Sang": Essays in Honor of Choon Leon Seow on the Occasion of His Sixty-Fifth Birthday*. Edited by Scott C. Jones and Christine Roy Yoder. Berlin: de Gruyter, 2018.

Griffiths, Alan. "Stories and Storytelling." Pages 130–144 in *The Cambridge Companion to Herodotus*. Edited by Carolyn Dewald and John Marincola. Cambridge: Cambridge University Press, 2006.

Grohmann, Marianne. "The Role of Senses in Lamentations 4." Pages 181–98 in *Sounding Sensory Profiles in the Ancient Near East*. Edited by Annette Schellenberg and Thomas Krüger. Atlanta, GA: SBL Press, 2019.

Guillaumont, A. "La designation des couleurs en hébreu et an arameén." Pages 339–49 in *Problèmes de la couleur: exposes et discussions du collque du Centre de Recherches de psychologie comparative (mai 1954)*. Edited by I. Meyerson. Paris: SEVPEN, 1957.

Gunn David M., and Paula M. McNutt, eds. *'Imagining' Biblical Worlds: Studies in Spatial, Social and Historical Constructs in Honor of James W. Flanagan*. JSOTSup 359. London: Sheffield Academic Press, 2002.

Guzzo, Maria Giulia Amadasi. “The Language.” Pages 199–222 in *The Oxford Handbook of the Phoenician and Punic Mediterranean*. Edited by Carolina López-Ruiz and Brian R. Doak. New York: Oxford University Press, 2019.

Gzella, Holger. *A Cultural History of Aramaic: From the Beginnings to the Advent of Islam.* Leiden: Brill, 2015.

Habel, Norman C. *The Book of Job*. CBC. New York: Cambridge University Press, 1975.

Hagedorn, Anselm C. *Between Moses and Plato: Individual and Society in Deuteronomy and Ancient Greek Law*. Göttingen: Vandenhoeck & Ruprecht, 2004.

Hallo, William W. “Compare and Contrast: The Contextual Approach to Biblical Literature.” Pages 1–30 in *The Bible in the Light of Cuneiform Literature: Scripture in Context III*. Edited by William W. Hallo, Bruce William Jones, and Gerald L. Mattingly. Ancient Near Eastern Texts and Studies 8. Lewiston, NY: Mellen, 1990.

_____. “Cult Statue and Divine Image.” Pages 1–19 in *Scripture in Context II: More Essays on the Comparative Method*. Edited by William Hallo, James Moyer, and Leo Perdue. Winona Lake, IN: Eisenbrauns, 1982.

_____. “New Moons and Sabbaths: A Case-Study in the Contrastive Approach.” Pages 420–42 in *Essential Papers on Israel and the Ancient Near East*. Edited by Frederick E. Greenspahn. New York: New York University Press, 1991.

Hamilton, Victor P. *The Book of Genesis: Chapters 18–50*. NICOT. Grand Rapids, MI: Eerdmans, 1995.

Hannah, Patricia A. “The Cosmetic Use of Red Ochre (*Miltos*).” Pages 100–5 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. BARIS 1267. Oxford: John and Erica Hedges, 2004.

Hansen, Eric. “The Hidden History of Scented Wood.” *Aramco World* 51 (2000): 3–11.

Haran, Menahem. *Temples and Temple Service in Ancient Israel: An Inquiry in Biblical Cult Phenomena and the Historical Setting of the Priestly School.* Winona Lake, IN: Eisenbrauns, 1985.

Hardin C.L., and Luisa Maffi, eds. *Color Categories in Thought and Language*. Cambridge: Cambridge University Press, 1997.

Harrell, James E., James K. Hoffmeier and Kenton F. Williams. "Hebrew Gemstones in the Old Testament: A Lexical, Geological, and Archaeological Analysis." *BBR* 27 (2017): 1–52.

Harris, J.S. "The Stones of the High Priest's Breastplate." *The Annual of Leeds University Oriental Society* 5 (1963-65): 40–62.

Harrison, Thomas., and Elizabeth Irwin. "Introduction." Pages 1–16 in *Interpreting Herodotus*. Edited by Thomas Harrison and Elizabeth Irwin. Oxford: Oxford University Press, 2018.

Hartenstein, Friedhelm. "Clothing and Nudity in the Paradise Story (Gen. 2–3)." Pages 357–78 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Hartley, John. *Leviticus*. WBC 4. Nashville, TN: Thomas Nelson, 1992.

_____. *The Book of Job.* Grand Rapids, MI: Eerdmans, 1988.

_____. *The Semantics of Ancient Hebrew Colour Lexemes*. ANES 33. Louvain: Peeters, 2010.

Haspelmath, Martin. "Lexical Borrowing: Concepts and Issues." Pages 35–54 in *Loanwords in the World's Languages: A Comparative Handbook*. Edited by Martin Haspelmath and Uri Tadmor. Berlin: de Gruyter, 2009.

Haugen, Einar., and Marianne Mithun. "Borrowing: An Overview." Pages 197–200 in *International Encyclopedia of Linguistics: Vol. 1*. Edited by William J. Frawley. Oxford: Oxford University Press, 2003.

Hays, Christopher B. *Hidden Riches: A Sourcebook for the Comparative Study of the Hebrew Bible and Ancient Near East*. Louisville, KY: Westminster John Knox, 2014.

Heider, Eleanor. "'Focal' Colour Area and the Development of Color Names." *Developmental Psychology* 4 (1971): 447–55.

_____. "Universals in Color Naming and Memory." *Journal of Experimental Psychology* 93 (1972): 10–20.

Heijmans, Shai. "Greek Loanwords." Pages 148–51 in *Encyclopedia of Hebrew Language and Linguistics: Volume 2: G-O*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Heine, Bernd., Ulrike Claudi and Freiderike Hünnemeyer. *Grammaticalization: A Conceptual Framework*. Chicago, IL: University of Chicago Press, 1994.

Heller, Roy L. *Power, Politics, and Prophecy: The Character of Samuel and the Deuteronomistic Evaluation of Prophecy*. LHBOTS 440. New York: T&T Clark, 2006.

Heltzer, Michael. "On the Origin of the Near Eastern Archaeological Amber." Pages 169–76 in *Languages and Cultures in Contact: At the Crossroads of Civilizations in the Syro-Mesopotamian Realm: Proceedings of the 42th RAI*. Edited by Karel van Lerberghe and Gabriela Voet. Leuven: Peeters, 1999.

Herr, Larry G. "Plaster." *ISBE* 3:883.

Herzog, Isaac. "Hebrew Porphyrology." Pages 17–146 in *The Royal Purple and Biblical Blue: Argaman and Tekhelet. The Study of Chief Rabbi Dr Isaac Herzog on the Dye Industries in Ancient Israel and Recent Scientific Contributions*. Edited by Ehud Spanier. Jerusalem: Keter, 1987.

Hestrin, Ruth., and Michal Dayagi-Mendeles. *Inscribed Seals: First Temple Period Hebrew, Ammonite, Moabite, Phoenician and Aramaic from the Collections of the Israel Museum and the Israel Department of Antiquities and Museums.* Jerusalem: Israel Museum, 1979.

Hickerson, Nancy Parott. "Gladstone's Ethnolinguistics: The Language of Experience in the Nineteenth Century." *Journal of Anthropological Research* 39 (1983): 26–41.

Hickey, Raymond, ed. *The Handbook of Language Contact*. Oxford: Wiley-Blackwell, 2013.

Hillers, Delbert R. *Lamentations*. 2nd ed. AB 7A. New York: Doubleday, 1992.

Hoch, James E. *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*. Princeton, NJ: Princeton University Press, 1994.

Hock, Hans Henrich., and Brian D. Joseph. *Language History, Language Change, and Language Relationship: An Introduction to Historical and Comparative Linguistics*. 2nd ed. Berlin: de Gruyter, 2009.

Hoftijzer, Jacob., and Karel Jongeling. *Dictionary of North-West Semitic Inscriptions*. 2 vols. Leiden: Brill, 1995.

Hossfeld, Frank-Lothar., and Erich Zenger. *Psalms 2: A Commentary on Psalms 51-100*. Hermeneia. Minneapolis, MN: Fortress, 2005.

Houtman, C. *Exodus*. HCOT. Leuven: Peeters, 1993.

_____. "On the Pomegranates and the Golden Bells of the High Priest's Mantle." *VT* 40, (1990): 223–9.

_____. "The Urim and Thummim: A New Suggestion." *VT* 40 (1990): 229–32.

Hubbard, Robert L. "The Eyes Have It: Theological Reflections on Human Beauty." *ExAud* 13 (1997): 57–72.

Huddlestun, John R. "Divestiture, Deception, and Demotion: The Garment Motif in Genesis 37–39." *JSOT* 98 (2002): 47–62.

_____. "Red Sea." *ABD* 5:633-42.

Huehnergard, John. *A Grammar of Akkadian.* Atlanta, GA: Scholars Press, 1997.

Hulse, Elizabeth V. "The Nature of Biblical "Leprosy" and the Use of Alternative Medical Terms in Modern Translations of the Bible." *PEQ* 107 (1975): 87–105.

Hundley, Michael B. "Before YHWH at the Entrance of the Tent of Meeting: A Study of Spatial and Conceptual Geography in the Priestly Texts." *ZAW* 123 (2011): 15–26.

Hunt, Patrick. *Poetry in the Song of Songs: A Literary Analysis*. StBibLit 96. New York: Peter Lang, 2008.

Hurowitz, Victor Avigdor. Review of *Akkadian Loanwords in Biblical Hebrew,* by Paul. V. Mankowski. *JAOS* 122 (2002): 136–83.

Hurvitz, Avi. *A Concise Lexicon of Late Biblical Hebrew: Linguistic Innovations in the Writings of the Second Temple Period.* Leiden: Brill, 2014.

_____. "Can Biblical Texts Be Dated Linguistically? Chronological Perspectives in the Historical Study of Biblical Hebrew." Pages 143–60 in *Congress Volume, Oslo 1998*. Edited by André Lemaire and Magne Saebø. VTSup 80. Leiden: Brill, 2000.

_____. "Hebrew and Aramaic in the Biblical Period: The Problem of 'Aramaisms' in Linguistic Research on the Hebrew Bible." Pages 24–37 in *Biblical Hebrew: Studies in Chronology and Typology.* Edited by Ian Young. New York: T&T Clark, 2003.

_____. "The Date of the Prose-Tale of Job Linguistically Reconsidered." *HTR* 67 (1974): 17–34.

_____. "The Recent Debate on Late Biblical Hebrew: Solid Data, Experts' Opinions and Inconclusive Arguments." *HS* 47 (2006): 191–210.

_____. "The Usage of שֵׁשׁ and בּוּץ in the Bible and its Implication for the Date of P." *HTR* 60 (1967): 117–21.

Imes, Carmen Joy. "Between Two Worlds: The Functional and Symbolic Significance of the High Priest Regalia." Pages 29–62 in *Dress and Clothing in the Hebrew Bible: "For All Her Household are Clothed in Crimson"*. Edited by Antonios Finitsis. London: T&T Clark, 2019.

Irwin, Eleanor. *Colour Terms in Greek Poetry*. Toronto, ON.: Hunter Rose Company, 1974.

Jackson, J.R. de Jager. *Historical Criticism and the Meaning of Texts*. London: Routledge, 1989.

James, Elaine T. *Landscapes of the Song of Songs: Poetry and Place.* Oxford: Oxford University Press, 2017.

James, Liz. "Colour and the Byzantine Rainbow." *Byzantine and Modern Greek Studies* 15 (1991): 66–95.

_____. *Light and Colour in Byzantine Art*. New York: Clarendon Press, 1995.

James, Matthew A., et al. "High Prestige Royal Purple Dyed Textiles from the Bronze Age Royal Tomb at Qatna, Syria." *Antiquity* 83 (2009): 1109–18.

Japhet, Sara. *1 and 2 Chronicles*. OTL. London: SCM Press, 1993.

Jasper, David. "Literary Readings of the Bible." Pages 21–34 in *The Cambridge Companion to Biblical Interpretation*. Edited by John Barton. Cambridge: Cambridge University Press, 1998.

Jastrow, Marcus. *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature: Volume I.* London: Luzac & Co., 1903.

Jensen, Aaron Michael. "The Appearance of Leah." *VT* 68 (2018): 514 –8.

Jensen, Joseph E. "Psalm 75: Its Poetic Contexts and Structure." *CBQ* 63 (2001): 416–29.

_____. "Ruby." *EDB* 1143.

Jensen, Lloyd B. "Royal Purple of Tyre." *JNES* 22 (1963): 104–18.

Johnson, Marie., Ethel B. Abrahams, and Maria M.L. Evans. *Ancient Greek Dress.* Chicago, IL: Argonaut, 1964.

Joyce, Paul M. *Ezekiel: A Commentary*. London: T&T Clark, 2007.

_____. "Lamentations." Pages 528–33 in *The Oxford Bible Commentary*. Edited by John Barton and John Muddiman. Oxford: Oxford University Press, 2001.

Joyce, Paul M., and Diana Lipton. *Lamentations Through the Centuries.* Malden, MA: Wiley-Blackwell, 2013.

Kamionkowski, S. Tamar. *Gender Reversal and Cosmic Chaos: A Study in the Book of Ezekiel*. JSOTSup 368. Sheffield: Sheffield Academic Press, 2003.

Kamionkowski, S. Tamar., and Wonil Kim, eds. *Bodies, Embodiment, and Theology of the Hebrew Bible*. London: T&T Clark International, 2010.

Karali, L., and F. Megaloudi. "Purple Dyes in the Environment and History of the Aegean: A Short Review." Pages 181–4 in *Vestidos, Textiles y Tintes: Estudies sobre la producción de bienes de consume en la Antigüedad*. Edited by C. Alfaro and L. Karali. Valencia: Universitat de València, 2008.

Kaufman, Stephen A. *The Akkadian Influences on Aramaic.* Chicago, IL: The University of Chicago Press, 1974.

Kawashima, Robert S. *Biblical Narrative and the Death of the Rhapsode.* Bloomington, IN: Indiana University Press, 2004.

_____. "Verbal Medium and Narrative Art in Homer and the Bible." *Philosophy and Literature* 28 (2004): 103–17.

Kay, Paul., and Chad K. McDaniel. "The Linguistic Significance of the Meanings of Basic Color Terms." *Language* 54 (1978): 610–46.

Kearns, Emily. "The Gods in the Homeric Epics." Pages 59–73 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Kedar-Kopfstein, Benjamin. "Synästhesien im biblischen Althebräisch in Übersetzung und Auslegung." *ZAH* 1 (1988): 47–60, 147–58.

Keel, Othmar. *Corpus der Stempelsiegel-Amulette aus Palästina/Israel: Von den Anfängen bis zur Perserzeit Einleitung.* Göttingen: Vandenhoeck & Ruprecht, 1995.

_____. “Die Brusttasche des Hohenpriesters als Element priesterschriftlicher Theologie,” Pages 379–91 in *Das Manna fällt auch heute noch*. Edited by Frank-Lothar Hossfeld and Ludger Schwienhorst-Schönberger. Freiburg: Herder, 2004.

_____. *Song of Songs: A Continental Commentary.* Minneapolis, MN: Fortress, 1994.

Kessler, Rainer. “‘When You See the Naked, Cover Them!’ (Isa. 58:7): The Clothing of the Poor as an Act of Righteousness.” Pages 331–42 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Kim, Dong-Hyuk. *Early Biblical Hebrew, Late Biblical Hebrew, and Linguistic Variability: A Sociolinguistic Evaluation of the Linguistic Dating of Biblical Texts.* Leiden: Brill, 2013.

King, Philip J., and Lawrence E. Stager. *Life in Biblical Israel*. Louisville, KY: Westminster John Knox, 2001.

Kitz, Anne Marie. *Cursed Are You!: The Phenomenology of Cursing in Cuneiform and Hebrew Texts*. Winona Lake, IN.: Eisenbrauns, 2013.

_____. “The Plural Form of ’Ûrîm and Tummîm.” *JBL* 116 (1997): 401–10.

Klein, Lillian R. *From Deborah to Esther: Sexual Politics in the Hebrew Bible*. Minneapolis, MN: Augsburg Fortress, 2003.

Klein, Ralph W. *1 Samuel*. WBC 10. Waco, TX: Word, 1983.

Knust, J.W., and Z. Várhelyi, eds. *Ancient Mediterranean Sacrifice*. New York: Oxford University Press, 2011.

Kober, A.E. “Some Remarks on Colour in Greek Poetry.” *CW* 27 (1934): 189–91.

_____. *The Use of Color Terms in the Greek Poets, Including all the Poets from Homer to 146 B.C., Except the Epigrammatists*. Geneva, NY: W.F. Humphrey Press, 1932.

Köehler, Ludwig., Walter Baumgartner, and Johann J. Stamm, eds. *The Hebrew and Aramaic Lexicon of the Old Testament*. Translated by Mervyn E. J. Richardson. 2 vols. Leiden: Brill, 2001.

Koenig, Sara M. “Tamar and Tamar: Clothing as Deception and Defiance.” Pages 87–108 in *Dress and Clothing in the Hebrew Bible: “For All Her Household Are Clothed In Crimson”*. Edited by Antonios Finitsis. London: T&T Clark, 2019.

Kohn, Risa Levitt. *A New Heart and a New Soul: Ezekiel, the Exile and the Torah*. JSOTSup 358. Sheffield: Sheffield Academic Press, 2002.

Konstan, David., and Kurt A. Raaflaub, eds. *Epic and History*. Chichester: Wiley-Blackwell, 2010.

Koren, Zvi C. “Historico-Chemical Analysis of Plant Dyestuffs Used in Textiles from Ancient Israel.” *Archaeological Chemistry* 21 (1996): 269–310.

_____. “The First Optimal All-murex All-Natural Purple Dyeing in the Eastern Mediterranean in a Millennium and a Half.” *Dyes in History and Archaeology* 20 (2005): 136–149.

Kronholm and Fabry. “קשׁת.” *TDOT* 13:201–8.

Kruger, Paul A. “A Cognitive Interpretation of the Emotion of Fear in the Hebrew Bible.” *JNSL* 27 (2001): 77–89.

_____. “Depression in the Hebrew Bible: An Update.” *JNES* 64 (2005): 187–92.

_____. “Emotions in the Hebrew Bible: A Few Observations on Prospects and Challenges.” *OTE* 28 (2015): 395–420.

_____. “The Face and Emotions in the Hebrew Bible.” *OTE* 18 (2005): 651–63.

Kuhrt, Amélie. *Ancient Near East c. 3000–330BC*. 2 vols. London: Routledge, 1995.

Kutsko, John F. *Between Heaven and Earth: Divine Presence and Absence in the Book of Ezekiel.* Winona Lake, IN: Eisenbrauns, 2000.

Lakoff, George. *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago, IL: University of Chicago Press, 1987.

_____. *Ten Lectures on Cognitive Linguistics*. Leiden: Brill, 2018.

_____. *The All New Don't Think of An Elephant! Know your Values and Frame the Debate.* White River Junction, VT: Chelsea Green Publishing, 2004, 2014.

Lakoff, George., and Mark Johnson. *Metaphors We Live By*. Chicago, IL: University of Chicago Press, 1980.

Lalleman, Hetty. *Jeremiah and Lamentations: An Introduction and Commentary*. TOTC 2. Downers Grove, IL: InterVarsity Press, 2013.

Lambdin, Thomas O. "Egyptian Loan Words in the Old Testament." *JAOS* 73 (1953): 145–55.

Landsberger, Benno. "Über Farben im Sumerisch-Akkadischen." *JCS* 21 (1967): 139–173.

Lateiner, Donald. *The Historical Method of Herodotus*. London: University of Toronto Press, 1989.

_____. "The *Iliad*: An Unpredictable Classic." Pages 11–30 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Lawrence, Stuart E. "Moral Decisions in Homer." *Scholia: Studies in Classical Antiquity* 12 (2003): 27–33.

Lee, Mireille M. "The Gendered Economics of Greek Mirrors: Reflections on Reciprocity and Feminine Agency." *Arethusa* 50 (2017): 143–68.

Lehmann, Gunnar. "The Levant." Pages 465–480 in *The Oxford Handbook of the Phoenician and Punic Mediterranean*. Edited by Carolina López-Ruiz and Brian R. Doak. New York: Oxford University Press, 2019.

LeMon, Joel M., and Richard A. Purcell. "The Garments of God: Iconographic Case Studies from Isaiah 61:1; 59:17; and 63:1–6." Pages 269–88 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

Lemos, T.M. "Broken are the Bows of the Mighty": The Bow in Ancient Israel and the Gun in Contemporary America." In *God and Guns*, eds. C.L. Crouch and C.B. Hays. Louisville, KY: Westminster John Knox, forthcoming.

Leuchter, Mark. "Genesis 38 in Social and Historical Perspective." *JBL* 132 (2013): 209–27.

Levenson, Jon D. *Esther: A Commentary.* Louisville, KY: Westminster John Knox, 1997.

Liddell, Henry George., Robert Scott and Henry Stuart Jones. *A Greek-English Lexicon*. 9th ed. Oxford: Clarendon Press, 1996.

Lierbermann, Rosanne. "Feeling Blue: Israel, Assyria, and the History of a Color." Paper presented at the Colour & Identity in the Ancient World Online Talk, 2020.

_____. "'The Apparel Oft Proclaims the Man': Clothing and Identity in Ezekiel 23." *WO* 50 (2020): 1–16.

Lipiński, Edward. "Emprunts suméro-akkadiens en hébreu biblique." *ZAH* 1 (1988): 61–73.

_____. "Products and Brokers of Tyre According to Ezekiel 27." Pages 213–20 in *Phoenicia and Its Neighbours: Proceedings of the Colloquium Held on the 9th and 10th of December 1983 at the "Vrije Universiteit Brussel," in Cooperation with the "Centrum Voor Myceense En Archaïsch-Griekse Cultuur"*. Edited by Eric Gubel and Edward Lipiński. Leuven: Peeters, 1985.

Lipiński. "תרשיש." *TDOT* 15:790–3.

Lipton, Diana. "Sweet Dreams? Interpreting Food in the Dreams of Pharaoh's Cupbearer and Baker." https://www.bibleinterp.com/PDFs/Joseph.pdf.

Liverani, Mario. *International Relations in the Ancient Near East, 1600–1100 BC.* New York: Palgrave, 2001.

_____. "The Late Bronze Age: Materials and Mechanisms of Trade and Cultural Exchange." Pages 161–7 in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.* Edited by Joan Aruz, Kim Benzel, and Jean M. Evans. New York: The Metropolitan Museum of Art, 2008.

_____. "The Trade Network of Tyre According to Ezek. 27." Pages 65–79 in *Ah, Assyria…! Studies in Assyrian History and Ancient Near Eastern Historiography Presented to*

Hayim Tadmor. Edited by M. Cogan and I. Eph'al. Jerusalem: Hebrew University Press, 1991.

_____. "The Libyan Caravan Road in Herodotus IV.181–185." *JESHO* 43 (2000): 496–520.

Loader, James Alfred. "Making Things from the Heart: On Works of Beauty in the Old Testament." *OTE* 25 (2012): 100–14.

_____. "The Dark Side of Beauty in the Old Testament." *OTE* 25 (2012): 334–50.

Lowe, Benedict. "The Industrial Exploitation of murex: Purple Dye Production in the Western Mediterranean." Pages 46–48 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. BARIS 1267. Oxford: John and Erica Hedges, 2004.

Lucas, A., and J.R. Harris. *Ancient Egyptian Materials and Industries*. New York: Dover, 2012.

Lucy, John A. *Language Diversity and Thought: A Reformulation of the Linguistic Relativity Hypothesis*. Cambridge: Cambridge University Press, 1992.

_____. "The Linguistics of 'Color'." Pages 321–46 in *Color Categories in Thought and Language*. Edited by C.L. Hardin and Luisa Maffi. Cambridge: Cambridge University Press, 1997.

Lyell, Ellena. "Cognitive Linguistics and Chromatic Language: Applying Modern Theories of Colour Perception to the Hebrew Bible." *SJOT*, forthcoming.

_____. "Redefining Kingship: The Uses of Purple in the Hebrew Bible," *ZAW* forthcoming.

_____. "Giving Gold, Spices and Stones: A Closer Look at the Queen of Sheba's Gift to Solomon," *HS* forthcoming.

Lyons, John. "The Vocabulary of Color with Particular Reference to Ancient Greek and Classical Latin." Pages 38–75 in *The Language of Color in the Mediterranean: An Anthology on Linguistic and Ethnographic Aspects of Color Terms*. Edited by Alexander Borg. Stockholm: Almqvist & Wiksell International, 1999.

MacDonald, Nathan *What Did the Ancient Israelites Eat? Diet in Biblical Times.* Grand Rapids, MI: Eerdmans, 2008.

_____. *Not Bread Alone: The Uses of Food in the Old Testament.* Oxford: Oxford University Press, 2008.

_____. "The Priestly Vestments," Pages 435–48 in *Clothing and Nudity in the Hebrew Bible.* Edited by Christoph Berner et al. London: T&T Clark, 2019.

MacLaury, Robert E. *Color and Cognition in Mesoamerica: Construction Categories as Vantages*. Austin, TX: University of Texas Press, 1997.

_____. "From Brightness to Hue: An Explanatory Model of Color–Category Evolution." *Current Anthropology* 33 (1992): 137–186.

_____. "Introducing Vantage Theory." *Language Sciences* 24 (2002): 493–536.

_____. "Vantage Theory in Outline." Pages 66–136 in *Vantage Theory: A View on Language, Cognition and Categorization*. Edited by Adam Głaz, Marnie L. Moist and Elena Tribushina. Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2013.

MacLaury, Robert E., Galina V. Paramei and Don Dedrick, eds. *Anthropology of Color: Interdisciplinary Multilevel Modeling*. Philadelphia, PA: John Benjamins, 2007.

Macintosh, A.A. *A Critical and Exegetical Commentary on Hosea.* Edinburgh: T&T Clark, 1997.

Macwilliam, Stuart. "Ideologies of Male Beauty and the Hebrew Bible." *BibInt* 17 (2009): 265–87.

Magnus, Hugo. *Die geschichtliche Entwickelung des Farbensinnes*. Leipzing: von Veit, 1877.

_____. *Untersuchungen über den Farbensinn der Naturvölker*. Jena: Gustav Fischer, 1880.

Malamat, Abraham. "'Silver, Gold and Precious Stones from Hazor.' Trade and Trouble in a New Mari Document." *JJS* 33 (1982): 71–9.

_____. "'Silver, Gold, and Precious Stones from Hazor' in a New Mari Document." *BA* 46 (1983): 169–74.

Malchow, Bruce V. *Social Justice in the Hebrew Bible: What is New and What is Old*. Collegeville, MN: Liturgical Press, 1996.

Malul, Meir. *Knowledge, Control and Sex: Studies in Biblical Thought, Culture and Worldview*. Tel Aviv: Archaeological Center Publication, 2002.

_____. *The Comparative Method in Ancient Near Eastern and Biblical Legal Studies*. AOAT 227. Kevelaer: Verlag Butzon & Bercker, 1990.

Mandell Alice., and Jeremy Smoak. "The Material Turn in the Study of Israelite Religions: Spaces, Things, and the Body." *JHebS* 19 (2019): 1–42.

Mandell, Sara., and David Noel Freedman. *The Relationship Between Herodotus' History and Primary History*. Atlanta, GA: Scholars Press, 1993.

Mankowski, Paul V. *Akkadian Loanwords in Biblical Hebrew.* Winona Lake, IN: Eisenbrauns, 2000.

Margueron, Jean-Claude. "Ugarit: Gateway to the Mediterranean." Pages 251–60 in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.* Edited by Joan Aruz, Kim Benzel, and Jean M. Evans. New York: The Metropolitan Museum of Art, 2008.

Marincola, John. "Herodotus and the Poetry of the Past." Pages 13–28 in *The Cambridge Companion to Herodotus*. Edited by Carolyn Dewald and John Marincola. Cambridge: Cambridge University Press, 2006.

Marriner, Nick., Christophe Morhange, and Nicolas Carayon. "Ancient Tyre and Its Harbours: 5000 Years of Human-Environment Interactions." *Journal of Archaeological Science* 35 (2008): 1281–310.

Matthews, P.H. *The Concise Oxford Dictionary of Linguistics*. 2nd ed. Oxford: Oxford University Press, 2007.

Matthews, Victor H. “The Anthropology of Clothing in the Joseph Narrative.” *JSOT* 65 (1995): 25–36.

Maxwell-Stuart, P.G. *Studies in Greek Colour Terminology: Volume I, Glaukos*. MnemSup 65. Leiden: Brill, 1981.

_____. *Studies in Greek Colour Terminology: Volume 2, Charopos*. MnemSup 67. Leiden: Brill, 1981.

McCormick, Clifford Mark. *Palace and Temple: A Study of Architectural and Verbal Icons*. BZAW 313. Berlin: de Gruyter, 2002.

McGovern, Patrick E. and R.H. Michel. “Royal Purple dye: the Chemical Reconstruction of the Ancient Mediterranean Industry.” *Accounts of Chemical Research* 23 (1990): 152–8.

McKane, William. *Proverbs: A New Approach.* London: SCM Press, 1970.

McKay, Heather A. “Gendering the Body: Clothes Maketh the (Wo)Man.” Pages 84–104 in *Theology and the Body: Gender, Text and Ideology*. Edited by Robert Hannaford and J’annine Jobling. Leominster: Gracewing, 1999.

McKeating, H. “Ezekiel the ‘Prophet Like Moses’?.” *JSOT* 61 (1994): 97–109.

Meschel, Susan V. “The Gems in the High Priest’s Breastplate: A Pragmatic Review.” *JBQ* 46 (2018): 241–51.

Metzler, Maria. “The Glory of God in Animal Eyes: Ezekiel’s Cherubim and Clarice’s Cockroach.” Pages 3–21 in *Tzedek, Tzedek Tirdof: Poetry, Prophecy, and Justice in Hebrew Scripture: Essays in Honor of Francis Landy on the Occasion of his 70th Birthday*. Edited by Andrew Gow and Peter Sabo. Leiden: Brill, 2018.

Meyers, Carol. “Esther.” Pages 324–30 in *The Oxford Bible Commentary*. Edited by John Barton and John Muddiman. Oxford: Oxford University Press, 2001.

_____. *Exodus*. Cambridge: Cambridge University Press, 2005.

Miglio, Adam E. “Introduction to Ancient near Eastern Literature.” Pages 91–6 in *Behind the Scenes of the Old Testament: Cultural, Social, and Historical Contexts*. Edited by Jonathan S. Greer, John W. Hilber, and John H. Walton. Grand Rapids, MI: Baker, 2018.

Miller, D. Gary. *Ancient Greek Dialects and Early Authors: Introduction to the Dialect Mixture in Homer, with Notes on Lyric and Herodotus*. Berlin: de Gruyter, 2014.

Montanari, Franco. *The Brill Dictionary of Ancient Greek.* Leiden: Brill, 2015.

Moorey, Peter R.S. *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence.* Oxford: Oxford University Press 1994.

Moran, William L. *The Armarna Letters.* Baltimore, MD: Johns Hopkins University Press, 1992.

Morkot, Robert. “Egypt and Nubia.” Pages 227–51 in *Empires: Perspectives from Archaeology and History*. Edited by Susan E. Alcock, Terence N. D’Altroy, Kathleen D. Morrison, and Carla M. Sinopoli. New York: Cambridge University Press, 2001.

Morris, Sarah. “Homer and the Near East.” Pages 599–623 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Morrison, A.D. *Apollonius Rhodius, Herodotus and Historiography*. Cambridge: Cambridge University Press, 2020.

Moss, Candida R. *Divine Bodies: Resurrecting Perfection in the New Testament and Early Christianity*. New Haven: Yale University Press, 2019.

Moughtin-Mumby, Sharon. *Sexual and Marital Metaphors in Hosea, Jeremiah, Isaiah and Ezekiel.* Oxford: Oxford University Press, 2008.

Muchiki, Yoshiyuki. *Egyptian Proper Names and Loanwords in North-West Semitic*. SBLDS 173. Atlanta, GA: Scholars Press, 1999.

Mukherjee Anna J., et al. “The Qatna Lion: Scientific Confirmation of Baltic Amber in Late Bronze Age Syria.” *Antiquity* 82 (2008): 49–59.

Müller, W.W. "Frankincense." *AB* 2:854.

Munro, Jill M. *Spikenard and Saffron: The Imagery of the Song of Songs*. JSOTSup 203. Sheffield: Sheffield Academic Press, 1995.

Murphy, Roland E. *Ecclesiastes*. WBC 23A. Grand Rapids, MI: Thomas Nelson, 1992.

Murray, Oswyn. "Herodotus and Hellenistic Culture." *CQ* 22 (1972): 200–13.

_____. "Herodotus and Oral History." Pages 16–44 in *The Historian's Craft in the Age of Herodotus*. Edited by Nino Luraghi. Oxford: Oxford University Press, 2001.

_____. "Herodotus and Oral History Reconsidered," Pages 314–25 in *The Historian's Craft in the Age of Herodotus*. Edited by Nino Luraghi. Oxford: Oxford University Press, 2001.

Murphy, Roland E. *The Song of Songs*. Hermeneia. Minneapolis, MN: Fortress, 1990.

Myhill, John. "Typology and Discourse Analysis." Pages 161–74 in *The Handbook of Discourse Analysis*. Edited by Deborah Schiffrin, Deborah Tannen, and Heidi E. Hamilton. Oxford: Blackwell Publishers, 2001.

Naiden, F.S. "Rejected Sacrifice in Greek and Hebrew Religion." *JANER* 6 (2006): 189–223.

Neal, Tamara. "Blood and Hunger in the *Iliad*." *CP* 101 (2006): 15–33.

Nelson, Richard D. *Deuteronomy: A Commentary.* Louisville, KY: Westminster John Knox, 2002.

Newsom, Carol A. "A Maker of Metaphors – Ezekiel's Oracles Against Tyre." *Interpretation* 38 (1984): 151–64.

_____. *Songs of the Sabbath Sacrifice: A Critical Edition*. HSS 27. Atlanta, GA: Scholars Press, 1985.

Newsom, Carol A., and Brennan W. Breed. *Daniel: A Commentary*. OTL. Louisville, KY: Westminster John Knox, 2014.

Newton, Isaac. *Opticks*. London: Sam Smith and Benj Walford, 1704.

Nicholson, Ernest. *The Pentateuch in the Twentieth Century: The Legacy of Julius Wellhausen*. New York: Oxford University Press, 1998.

Niditch. Susan. "The Wronged Woman Righted: An Analysis of Genesis 38." *HTR* 72 (1979): 143–9.

Nielsen, Flemming A.J. *The Tragedy in History: Herodotus and the Deuteronomistic History*. JSOTSup 251. Sheffield: Sheffield Academic Press, 1997.

Nihan, Christophe. "Le Pectoral d'Aaron et la figure du grand prêtre dans les traditions sacerdotales du Pentateuque." Pages 23–55 in *Congress Volume Stellenbosch 2016*. Edited by Louis Jonker, Gideon Kotzé and Christl M. Maier. VTSup 77. Leiden: Brill, 2017.

Nihan, Christophe., and Julia Rhyder. "Aaron's Vestments in Exodus 28 and Priestly Leadership." Pages 45–67 in *Debating Authority: Concepts of Leadership in the Pentateuch and the Former Prophets*. Edited by Katharina Pyschny and Sarah Schulz. BZAW 507. Berlin: de Gruyter, 2018.

Niskanen, Paul. *The Human and the Divine in History: Herodotus and the Book of Daniel*. London: T&T Clark International, 2004.

Nissinen, Martti. *Ancient Prophecy: Near Eastern, Biblical, and Greek Perspectives.* Oxford: Oxford University Press, 2017.

Noegel, Scott B. "Dreams and Dream Interpreters in Mesopotamia and in the Hebrew Bible (Old Testament)." Pages 45–73 in *Dreams: A Reader on Religious, Cultural, and Psychological Dimensions of Dreaming*. Edited by Kelly Bulkely. New York: Palgrave, 2001.

_____. "Scarlet and Harlots: Seeing Red in the Hebrew Bible." *HUCA* 87 (2016): 1–47.

Noonan, Benjamin J. "Did Nehemiah Own Tyrian Goods? Trade between Judea and Phoenicia during the Achaemenid Period." *JBL* 130 (2011): 281–98.

_____. "Egyptian Loanwords as Evidence for the Authenticity of the Exodus and Wilderness Traditions." Pages 49–67 in *"Did I Not Bring Israel Out of Egypt?" Biblical, Archaeological, and Egyptological Perspectives on the Exodus Narratives*. Edited by James K. Hoffmeier, Alan R. Millard, and Gary A. Rendsburg. BBRSup 13. Winona Lake, IN: Eisenbrauns, 2016.

_____. "Foreign Loanwords and Kulturwörter in Northwest Semitic (1400-600 B.C.E.): Linguistic and Cultural Contact in Light of Terminology for Realia." PhD diss., Hebrew Union College, 2012.

_____. *Non-Semitic Loanwords in the Hebrew Bible*. LSAWS 14. University Park, PA: Eisenbrauns, 2019.

Nunn, Astrid. "Colourful Garments of Mesopotamian Stone Statues." Pages 31–9 in *Essays in Global Color History: Interpreting the Ancient Spectrum*. Edited by Rachael B. Goldman. Piscataway, NJ: Gorgias, 2016.

_____. *Die Wandmalerei und der glasierte Wandschmuck im Alten Orient.* Leiden: Brill, 1988.

O'Connor, David. "Egypt, the Levant, and the Aegean from the Hyksos Period to the Rise of the New Kingdom." Pages 108–112 in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.* Edited by Joan Aruz, Kim Benzel, and Jean M. Evans. New York: The Metropolitan Museum of Art, 2008.

O'Connor, Kathleen M. "Lamentations." Pages 278–82 in *Women's Bible Commentary: Third Edition Revised and Updated*. Edited by Carol A. Newsom, Sharon H. Ringe and Jacqueline E. Lapsley. Louisville, KY: Westminster John Knox, 2012.

Odell, Margaret S. *Ezekiel.* Macon, GA: Smyth & Helwys, 2005.

_____. "Ezekiel Saw What He Said He Saw: Genres, Forms, and the Vision of Ezekiel 1." Pages 162–76 in *The Changing Face of Form Criticism for the Twenty-First Century*. Edited by Marvin A. Sweeney and Ehud Ben Zvi. Grand Rapids, MI: Eerdmans, 2003.

Økland, Jorunn., J. Cornelis de Vos and Karen J. Wenell, eds. *Constructions of Space III: Biblical Spatiality and the Sacred*. LHBOTS 540. New York: T&T Clark, 2016.

Olyan, Saul. *Disability in the Hebrew Bible: Interpreting Mental and Physical Differences*. New York: Cambridge University Press, 2008.

Oppenheim, A. Leo. "Golden Garments of the Gods." *JNES* 8 (1949): 172–93.

Otzen, Benedikt. "Israel under the Assyrians." Pages 251–61 in *Power and Propaganda: A Symposium on Ancient Empires*. Edited by M.T. Larsen. Copenhagen: Akademisk Forlag, 1979.

Palmer, Christine. "Unshod on Holy Ground: Ancient Israel's 'Disinherited' Priesthood." Pages 1–18 in *Fashioning Jews: Clothing, Culture and Commerce*. Edited by Leonard J. Greenspoon. West Lafayette: Purdue University Press, 2013.

_____. "Israelite High Priestly Apparel: Embodying an Identity Between Human and Divine." Pages 117–27 in *Fashioned Selves: Dress and Identity in Antiquity*. Edited by Megan Cifarelli. Oxford: Oxbow Books, 2019.

Papadopoulou-Belmehdi, Ionna. "Greek Weaving or the Feminine Antithesis." *Diogenes* 167 (1994): 39–56.

Pastoureau, Michel. *Blue: The History of a Colour*. Oxford: Princeton University Press, 2001.

Pelletier-Michaud, Lydia. "Colour me Greek: Poetic Value, Economy of Language and the Chromatic Vocabulary in Roman Elegy." Pages 283–310 in *The Value of Colour: Material and Economic Aspects in the Ancient World*. Edited by Shiyanthi Thavapalan and David A. Warburton. Berlin: EditionTopoi, 2019.

Pelling, Christopher. "Speech and Narrative in the *Histories*." Pages 103–21 in *The Cambridge Companion to Herodotus*. Edited by Carolyn Dewald and John Marincola. Cambridge: Cambridge University Press, 2006.

Penchansky, David. "Beauty, Power, and Attraction: Aesthetics in the Hebrew Bible." Pages 47–66 in *Beauty and the Bible: Toward a Hermeneutics of Biblical Aesthetics*. Edited by Richard J. Bautch and Jean-Françoise Racine. Atlanta, GA: SBL Press, 2013.

Perdue, Leo G., ed. *The Blackwell Companion to the Hebrew Bible*. Oxford: Blackwell Publishers, 2001.

Perkins, David. *Is Literary History Possible?* London: John Hopkins University Press, 1992.

Pfoh, Emanuel. *Syria-Palestine in the Late Bronze Age: An Anthropology of Politics and Power.* New York: Routledge, 2016.

Pham, Xuan Huong Thi. *Mourning in the Ancient Near East and the Hebrew Bible*. Sheffield: Sheffield Academic Press, 1999.

Platnauer, Maurice. "Greek Colour Perception." *ClQ* 15 (1921): 153–162.

Pope, Marvin H. *Job: Introduction, Translation, and Notes*. AB 15. New York: Doubleday, 1973.

_____. *Song of Songs*. AB 7C. Garden City, NY: Doubleday, 1977.

Powell, Barry. *Homer and the Origin of the Greek Alphabet*. Cambridge: Cambridge University Press, 1991.

_____. "Homer and Writing." Pages 3–32 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Powell, J. Enoch. *A Lexicon to Herodotus.* Cambridge: Cambridge University Press, 1938.

Powels, Sylvia. "Indische Lehnwörter in der Bibel." *ZAH* 5 (1992): 186–200.

Priestley, Jessica. *Herodotus and Hellenistic Culture: Literary Studies in the Reception of the Histories*. Oxford: Oxford University Press, 2014.

Propp, William H.C. *Exodus 1–18*. AB 2. New York: Doubleday, 1999.

_____. *Exodus 19–40*. AB 2A. New York: Doubleday, 2006.

Prouser, Joseph H. "Seeing Red: On Translating Esau's Request for Soup." *Conservative Judaism* 56 (2004): 13–20.

Prouser, Ora Horn. "Suited to the Throne: The Symbolic Use of Clothing in the David and Saul Narratives." *JSOT* 71 (1996): 27–37.

Quick, Laura "Art Aesthetics and the Dynamics of Visuality in Ezekiel 23." *JHebS*, forthcoming.

_____. "Decorated Women: A Sociological Approach to the Function of Cosmetics in the Books of Esther and Ruth." *BibInt* 27 (2019): 354–71.

_____. *Dress, Adornment and the Body in the Hebrew Bible*. Oxford: Oxford University Press, forthcoming.

Quillien, L. "Le manteau pourpre de Nabuchodonosor. Étude des circulations économiques de la laine pourpre en Mésopotamie au ler millénaire avant J.-C." *Hypothèses* 18 (2015): 105–18.

_____. The Economic Role of Coloured Textiles in Babylonia (1st Millennium BCE)." Pages 201–30 in *The Value of Colour: Material and Economic Aspects in the Ancient World*. Edited by Shiyanthi Thavapalan and David A. Warburton. Berlin: EditionTopoi, 2019.

Raaflaub, Kurt. "Homeric Society." Pages 624–48 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Rabin, Chaim. "Hittite Words in Hebrew." *Orientalia* 32 (1963): 113–39.

von Rad, Gerhard. *Genesis: A Commentary*. OTL. London: SCM Press, 1972.

_____. *Genesis: Revised Edition*. OTL. Philadelphia, PA: Westminster Press, 1973.

Rasmussen, Carl G. “Regions and Routes in the Levant.” Pages 12–20 in *Behind the Scenes of the Old Testament: Cultural, Social, and Historical Contexts*. Edited by Jonathan S. Greer, John W. Hilber, and John H. Walton. Grand Rapids, MI: Baker, 2018.

Reader, William W. “The Twelve Jewels of Revelation 21:19–20: Tradition History and Modern Interpretations.” *JBL* 100 (1981): 433–57.

Real, Timothy K., and David M. Gunn, eds. *Reading Bibles, Writing Bodies: Identity and the Book*. London: Routledge, 1997.

Reallexkion der Assyriologie. Edited by Erich Ebeling et al. Berlin: de Gruyter, 1928–.

Reddit, Paul L. *Introduction to the Prophets.* Grand Rapids, MI: Eerdmans, 2008.

Redford, Donald B. *Egypt, Canaan, and Israel in Ancient Times.* Princeton, NJ: Princeton University Press, 1992.

Reimer, David J. “Good Grief? A Psychological Reading of Lamentations.” *ZAW* 114 (2002): 542–59.

Reinhold, Meyer. *History of Purple as a Status Symbol in Antiquity*. Brussels: Latomus, 1970.

Reiter, Gerhard. *Die Griechischen Bezeichnungen der Farben Weiss, Grau und Braun*. Innsbruck: Wagner Universitatsverlag, 1962.

Renault, Luc. “Recherches sur le henné antique.” *JNES* 68 (2009): 193–212.

Rendsburg, Gary A. “A Further Note on Purple Dyeing.” *BA* 54 (1991): 121.

_____. “David and his circle in Genesis XXXVIII,” *VT* 36 (1986): 438–46.

_____. “Word Play in Biblical Hebrew: An Eclectic Collection.” Pages 137–62 in *Puns and Pundits: Wordplay in the Hebrew Bible and Ancient Near Eastern Literature*. Edited by Scott B. Noegel. Bethesda, MD: CDL Press, 2000.

Renkema, Johan. *Lamentations*. HCOT. Leuven: Peeters, 1998.

_____. "The Literary Structure of Lamentation." Pages 294–396 in *The Structural Analysis of Biblical and Canaanite Poetry*. Edited by W. van der Meer and J.C. de Moor. JSOTSup 74. Sheffield: JSOT Press, 1988.

Rezetko, Robert. "'Late' Common Nouns in the Book of Chronicles," Pages 379–417 in *Reflection and Refraction: Studies in Biblical Historiography in Honour of A. Graeme Auld*. Edited by Robert Rezetko, Timothy Lim and Brian Aucker. VTSup 113. Leiden: Brill, 2007.

Riggs, Christina. *Unwrapping Ancient Egypt*. London: Bloomsbury, 2014.

Rindge, Matthew S. "Jewish Identity Under Foreign Rule: Daniel 2 as a Reconfiguration of Genesis 41," *JBL* 129 (2010): 85–104.

Rivers, W.H.R. *Reports of the Cambridge Anthropological Expedition to Torres Straits: Volume II*. Cambridge: Cambridge University Press, 1901.

Roberson, Debi., Ian R.L. Davies and Jules Davidoff. "Color Categories Are Not Universal: Replications and New Evidence from a Stone-Age Culture." *Journal of Experimental Psychology: General* 129 (2000): 369–98.

Roberson, Debi., Jules Davidoff, Ian R.L. Davies and Laura R. Shapiro. "Color Categories: Evidence for the Cultural Relativity Hypothesis." *Cognitive Psychology* 50 (2005): 378–411.

Roberts, J.J.M. *Nahum, Habakkuk, and Zephaniah: A Commentary*. OTL. Louisville, KY: Westminster John Knox, 1991.

_____. *The Bible and the Ancient Near East: Collected Essays.* Winona Lake, IN: Eisenbrauns, 2002.

Roberts, Jennifer T. *Herodotus: A Very Short Introduction*. Oxford: Oxford University Press, 2011.

Rooke, Deborah W. *Zadok's Heirs: The Role and Development of the High Priesthood in Ancient Israel*. OTM. Oxford: Oxford University Press, 2000.

Rubin, Aaron D. "Egyptian Loanwords." Pages 793–4 in *Encyclopedia of Hebrew Language and Linguistics: Volume 1: A-F*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

_____. "Grammaticalization," Pages 133–5 in *Encyclopedia of Hebrew Language and Linguistics: Volume 2: G-O*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

_____. "Sumerian Loanwords." Pages 665–6 in *Encyclopedia of Hebrew Language and Linguistics: Volume 3: P-Z*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Running, L.G. "Garments." *ISBE* 2:401–7.

Ruscillo, Deborah. "Reconstructing *Murex* Royal Purple and Biblical Blue in Aegan," Pages 99–106 in *Archaeomalacology: Molluscs in Former Environments of Human Behavior*. Edited by Daniella E. Bar-Yosef Mayer. Oxford: Oxbow Books, 2005.

Rutherford, Richard. *Homer*. New York: Cambridge University Press, 1996.

Rutherford-Dyer, R. "Homer's Wine-Dark Sea." *GR* 30 (1983): 125–8.

Sadler Jr., Rodney S. *Can A Cushite Change His Skin?: An Examination of Race, Ethnicity, and Othering in the Hebrew Bible*. New York: T&T Clark, 2005.

Salters, Robert B. *Lamentations: A Critical and Exegetical Commentary.* London: T&T Clark International, 2010.

Sandmel, Samuel. "Parallelomania." *JBL* 81 (1962): 1–13.

Sapir, Edward. *Culture, Language and Personality: Selected Essays*. Berkeley, CA: University of California Press, 1961.

_____. *Language: An Introduction to the Study of Speech*. New York: Harcourt, Brace, 1921.

_____. "The Status of Linguistics as a Science." *Language* 5 (1929): 207–14.

Sarna, Nahum M. *Genesis.* Philadelphia, PA: The Jewish Publication Society, 1989.

Sasson, J.M. “The Blood of Grapes: Viticulture and Intoxication in the Hebrew Bible.” Pages 399–419 in *Drinking in Ancient Societies: History and Culture of Drinks in the Ancient Near East*. Edited by L. Milano. Padua: Sargon, 1994.

_____. “Two Recent Works on Mari.” *AfO* 27 (1980): 127–35.

Sauer, James A. “The Rivers Run Dry: Biblical Story Preserves Historical Memory.” *BAR* 22 (1996): 52–7.

Savran, George W. *Encountering the Divine: Theophany in Biblical Narrative.* JSOTSup 420. London: T&T Clark, 2005.

Seow, Choon Leong. *Daniel*. Louisville, KY: Westminster John Knox, 2003.

Schein, Seth. “The *Iliad*: Structure and Interpretation.” Pages 345–59 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Schenkel, Wolfgang. “Color Terms in Ancient Egypt and Coptic.” Pages 211–28 in *Anthropology of Color: Interdisciplinary Multilevel Modeling*. Edited by Robert E. MacLaury, Galina V. Paramei and Don Dedrick. Philadelphia, PA: John Benjamins, 2007.

_____. “Colours as Viewed by the Ancient Egyptians and the Explanation of this View as Seen by Academics Studying Colour.” Pages 35–54 in *The Value of Colour: Material and Economic Aspects in the Ancient World*. Edited by Shiyanthi Thavapalan and David A. Warburton. Berlin: EditionTopoi, 2019.

_____. “Die Farben in ägyptischer Kunst und Sprache.” *Zeitschrift für Ägyptische Sprache* 88 (1963): 131–47.

Schipper, Bernd U. “Egypt and the Kingdom of Judah under Josiah and Jehoiakim.” *TA* 37 (2010): 200–26.

Schipper, Jeremy., and Jeffrey Stackert. “Blemishes, Camouflage, and Sanctuary Service: The Priestly Deity and His Attendants.” *HeBAI* 2 (2013): 458–78.

Schneider, Thomas. “Egypt and the Levant.” Pages 61–4 in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.* Edited by Joan Aruz, Kim Benzel, and Jean M. Evans. New York: The Metropolitan Museum of Art, 2008.

_____. “Zur Herkunft der ägyptischen Bezeichnung *wrry.t* ‘Wagen’. Ein Indiz für den Lautwert von <r> vor Beginn des Neuen Reiches.” *Göttinger Miszellen* 173 (1999): 155–8.

Scholem, G. “Farben und ihre Symbolik in der jüdischen Überlieferung und Mystik.” *Eranos-Jahrbuch* 41 (1972): 1–49.

Schöntag, Roger., and Barbara Schäfer-Prieß. “Color Term Research of Hugo Magnus.” Pages 101–22 in *Anthropology of Color: Interdisciplinary Multilevel Modeling*. Edited by Robert E. MacLaury, Galina V. Paramei and Don Dedrick. Philadelphia, PA: John Benjamins, 2007.

Schroer, Silvia., and Thomas Staubli. *Body Symbolism in the Bible*. Collegeville, MN: Liturgical Press, 2001.

Schüngel, P.H. “Noch einmal zu קבוץ פרור Jo 2,6 ud Nah 2,11.” *BN* 7 (1978): 29–31.

Scodel, Ruth. “The Story-Teller and his Audience.” Pages 45–58 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Scurlock, Jo Ann., and Burton R. Andersen. *Diagnoses in Assyrian and Babylonian Medicine: Ancient Sources, Translations, and Modern Medical Analyses*. Chicago, IL: University of Illinois Press, 2005.

Shafer-Elliott, Cynthia. *Food in Ancient Judah: Domestic Cooking in the Time of the Hebrew Bible.* New York: Routledge, 2014.

Shehadeh, Haseeb. “Arabic Loanwords.” Pages 149–52 in *Encyclopedia of Hebrew Language and Linguistics: Volume 1: A-F*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Sherry, Patrick. *Spirit and Beauty: An Introduction to Theological Aesthetics*. London: SCM Press, 2002.

Shitrit, Talya. "Aramaic Loanwords and Borrowing." In *Encyclopedia of Hebrew Language and Linguistics: Volume 1: A-F*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Sherwood, Yvonne, ed. *The Bible and Feminism: Remapping the Field*. Oxford: Oxford University Press, 2017.

Sia, Kok Sin "Ezekiel 27:1–11: The Beauty of Tyre's Ship." PhD diss., Calvin Theological Seminary, 1994.

Silk, Michael. "The *Odyssey* and Its Explorations." Pages 31–44 in *The Cambridge Companion to Homer*. Edited by Robert Fowler. Cambridge: Cambridge University Press, 2004.

Simundson, Daniel J. *Hosea, Joel, Amos, Obadiah, Jonah, Micah*. AOTC. Nashville, TN: Abingdon, 2005.

Singer, Itamar. "Purple-Dyers at Lazpa" Pages 21–43 in *Anatolian Interfaces: Hittites, Greeks and Their Neighbours*. Edited by Billy Jean Collins, Mary R. Bachvarova, and Ian C. Rutherford. Oxford: Oxbow Books, 2008.

Singer-Avitz, Lily. "Beersheba – A Gateway Community in Southern Arabian Long Distance Trade in the Eight Century B.C.E." *TA* 26 (1999): 3–75.

Snaith, Norman H. "The Sea of Reeds: The Red Sea." *VT* 15 (1965): 395–8.

Snell, Daniel C. "Trade and Commerce (ANE)." *ABD* 6:625–9.

Sokoloff, Michael. *A Dictionary of Jewish Palestinian Aramaic of the Byzantine Period*. 2nd ed. Ramat Gan: Bar-Ilan University Press, 2002.

van Soldt, W.H. "Fabrics and Dyes at Ugarit." *UF* 22 (1990): 321–57.

Sommer, Benjamin D. *The Bodies of God and the World of Ancient Israel*. Cambridge: Cambridge University Press, 2009.

Spanier, Ehud., and N. Karmon. “Muricid Snails and the Ancient Dye Industries.” Pages 176–96 in *The Royal Purple and Biblical Blue: Argaman and Tekhelet: The Study of Chief Rabbi Dr. Isaac Herzog on the Dye Industries of Ancient Israel and Recent Scientific Contributions.* Edited by Ehud Spanier. Jerusalem: Keter, 1987.

Speiser, E.A. *Genesis*. AB 1. New York: Doubleday, 1964.

Spoelstra, Joshua Joel. “Mordecai’s Royal Vestments: Princely And/Or Priestly.” *OTE* 32 (2019): 174–96.

Stadel, Christian. “Aramaic Influence on Biblical Hebrew.” Pages 162–5 in *Encyclopedia of Hebrew Language and Linguistics: Volume 1: A-F*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

_____. “Old and Imperial Aramaic.” Pages 319–37 in *A Companion to Ancient Near Eastern Languages*. Edited by Rebecca Hasselbach-Andee. Hoboken, NJ: Wiley, 2020.

Staubli, Thomas. “Feces: The Primary Disgust Elicitor in the Hebrew Bible and in the Ancient Near East.” Pages 119–44 in *Sounding Sensory Profiles in the Ancient Near East*. Edited by Annette Schellenberg and Thomas Krüger. Atlanta: SBL Press, 2019.

Steussy, Marti J. *David: Biblical Portraits of Power*. Columbia, SC: University of South Carolina Press, 1999.

Stiebert, Johanna. *Fathers and Daughters in the Hebrew Bible*. Oxford: Oxford University Press, 2013.

Stol, Marten. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. CM 14. Groningen: Styx, 2000.

Stökl, Jonathan. “A Youth Without Blemish, Handsome, Proficient in all Wisdom, Knowledgeable and Intelligent”: Ezekiel’s Access to Babylonian Culture.” Pages 223–52 in *Exile and Return: The Babylonian Context*. Edited by Jonathan Stökl and Caroline Waerzeggers. BZAW 478. Berlin: de Gruyter, 2015.

Stone, Ken. *Sex, Honor and Power in the Deuteronomistic History*. JSOTSup 234. Sheffield: Sheffield Academic Press, 1996.

Stott, Katherine M. "Herodotus and the Old Testament: A Comparative Reading of the Ascendancy Stories of King Cyrus and David." *SJOT* 16 (2002): 52–78.

_____. *Why Did They Write This Way? Reflections on References to Written Documents in the Hebrew Bible and Ancient Literature*. LHBOTS 492. New York: T&T Clark International, 2008.

Strawn, Brent A. "Comparative Approaches: History, Theory, and the Image of God." Pages 117–42 in *Method Matters: Essays on the Interpretation of the Hebrew Bible in Honor of David L. Petersen*. Edited by Joel M. LeMon and Kent Harold Richards. Atlanta, GA: SBL Press, 2009.

Strong, James. *Exhaustive Concordance of the Bible.* Peabody, MA: Hendrickson Publishers, 2007.

Strong, John T. "Tyre's Isolationist Policies in the Early Sixth Century BCE: Evidence from the Prophets." *VT* 47 (1997): 207–19.

Stulz, Heinke. *Die Farbe Purpur im frühen Griechentum*. Stuttgart: Teubner, 1990.

Sumi, Akiko Motoyoshi. *Description in Classical Arabic Poetry: Waṣf, Ekphrasis, and Interarts Theory.* Leiden: Brill, 2004.

Sutskover, Talia. *Sight and Insight in Genesis: A Semantic Study.* Sheffield: Sheffield Phoenix Press, 2013.

Sweeney, Marvin A. *1 and 2 Kings*. OTL. Louisville, KY: Westminster John Knox, 2007.

Swersky, Ann. "The High Priest's Breastplate." *Ariel: Quarterly Review of Arts and Letters in Israel* 54 (1983): 107–20.

Tadmor, Uri. "Loanwords in the World's Languages: Findings and Results." Pages 55–75 in *Loanwords in the World's Languages: A Comparative Handbook*. Edited by Martin Haspelmath and Uri Tadmor. Berlin: de Gruyter, 2009.

Talmon, Shemaryahu. "The 'Comparative Method' in Biblical Interpretation – Principles and Problems." Pages 381–420 in *Essential Papers on Israel and the Ancient Near East*. Edited by Frederick E. Greenspahn. New York: New York University Press, 1991.

Taplin, Oliver. *Homeric Soundings: The Shaping of the Iliad*. Oxford: Clarendon, 1992.

Tate, Marvin E. *Psalms 51–100*. WBC 20. Grand Rapids, MI: Thomas Nelson, 1991.

Tawil, Hayim. *An Akkadian Lexicon Companion to Biblical Hebrew: Etymological-Semantic and Idiomatic Equivalence with Supplement on Biblical Aramaic.* Jersey City, NJ: KTAV Publishing House, 2009.

Thambyrajah, Jonathan A. "Loanwords in Biblical Literature: Rhetorical Studies in Esther, Daniel, Ezra, and Exodus." PhD diss., University of Sydney, 2019.

Thavapalan, Shiyanthi. "Color and Affect in Nebuchadnezzar II's Babylon." Pages 127–33 in *A Wonder to Behold: Craftsmanship and the Creation of Babylon's Ishtar Gate*. Edited by Anastasia Amrhein, Clare Fitzgerald and Elizabeth Knott. Princeton, NJ: Princeton University Press, 2019.

_____. "Purple Fabrics and Garments in Akkadian Documents." *JANEH* 3 (2018): 163–190.

_____. *The Meaning of Colour in Ancient Mesopotamia*. CHANE 104. Leiden: Brill, 2019.

The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Edited by Martha T. Roth. 21 vols. Chicago, IL: The Oriental Institute of the University of Chicago, 1956–2006.

"The Comprehensive Aramaic Lexicon." http://cal.huc.edu.

The Sumerian Dictionary of the University Museum of the University of Pennsylvania. Edited by Åke W.Sjöberg with the collaboration of Hermann Behrens. Philadelphia: Babylonian Section of the University Museum, 1884–. Restructured into an online endeavour.

Thomas, Rosalind. "Truth and Authority in Herodotus' Narrative: False Stories and True Stories." Pages 265–85 in *Herodotus: Narrator, Scientist and Historian*. Edited by Ewen Bowie. Berlin: de Gruyter, 2018.

Thomas, Winton D. "A Note on *maḥălāṣôt* in Zechariah iii 4." *JJS* 33 (1932): 279–80.

Thomason, Sarah Grey., and Terrence Kaufman. *Language Contact, Creolization, and Genetic Linguistics*. Berkeley, CA: University of California Press, 1988.

Thompson, Evan. *Colour Vision: A Study in Cognitive Science and the Philosophy of Perception*. London: Routledge, 1995.

Tracy, Stephen. "The Structures of the *Odyssey*." Pages 360–79 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Turner, Frank. "The Homeric Question." Pages 123–45 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Turner, Terence S. "The Social Skin." *Journal of Ethnographic Theory* 2 (2012): 486–504.

Uehlinger, Christoph. "Virtual Vision vs. Actual Show: Strategies of Visualization in the Book of Ezekiel." *WO* 45 (2015): 62–84.

Ullendorf, Edward. *Ethiopia and the Bible*. Oxford: Oxford University Press, 1968.

Ureña, Lourdes García. "Colour Adjectives in the New Testament." *NTS* 61 (2015): 219–38.

_____. "χλωρος y su riqueza cromática en la septuaginta." *Τι ήμιν και σοι; Lo que hay entre tú y nosotros. Estudios en honour a María Victoria Spottorno* (2016): 119–31.

Van Dam, Cornelis. *The Urim and Thummim: A Means of Revelation in Ancient Israel*. Winona Lake, IN: Eisenbrauns, 1997.

Van de Mieroop, Marc. *A History of the Ancient Near East: ca. 3000–323 BC.* Oxford: Blackwell Publishing, 2004.

Van Seters, John. *In Search of History: Historiography in the Ancient World and the Origins of Biblical History*. Winona Lake, IN: Eisenbrauns, 1997.

_____. "Is there any Historiography in the Hebrew Bible? A Hebrew-Greek Comparison." *JNSL* 28 (2002): 1–25.

_____. "The Geography of the Exodus." Pages 185–202 in *The Hebrew Bible and History: Critical Readings*. Edited by Lester L. Grabbe. London: T&T Clark, 2019.

Vayntrub, Jacqueline. "Tamar and Her Botanical Image." *JBL* 139 (2020): 301–18.

_____. "Tyre's Glory and Demise: Totalizing Description in Ezekiel 27." *CBQ* 28 (2020): 214–36.

Verman, Mark. "Royalty, Robes and the Art of Biblical Narrative." *SJOT* 30 (2016): 30–43.

Vervenne, Marc. "The Lexeme סוף (*sûph*) and the Phrase ים סוף (*yam sûph*)." Pages 403–29 in *Immigration and Emigration within the Ancient Near East: Festschrift E. Lipiński*. Edited by K. van Lerberghe and A. Schoors. Leuven: Peeters, 1995.

Vetter, Lisa Pace. *'Women's Work' as Political Art: Weaving and Dialectical Politics in Homer, Aristophanes, and Plato*. Lanham: Rowman and Littlefield, 2005.

Wabyanga, Robert Kuloba. "Song of Songs 1:5-7: An Africana Reading." *Journal of Theology for South Africa* 150 (2014): 128–47.

Wagner, Max. *Die Lexikalischen und Grammatikalischen Aramaismen im Alttestamentlichen Hebräisch*. BZAW 96. Berlin: Töpelmann, 1966.

Wallace, F.E. *Color in Homer and in Ancient Art: Preliminary Studies*. Northampton, MA: 1927.

Warburton, David A. "Basic Color Term Evolution in Light of Ancient Evidence from the Near East." Pages 229–46 in *Anthropology of Color: Interdisciplinary Multilevel Modeling*.

Edited by Robert E. MacLaury, Galina V. Paramei and Don Dedrick. Philadelphia, PA: John Benjamins, 2007.

_____. “Colourful Meaning: Terminology, Abstraction and the Near Eastern Bronze Age.” Pages 183–208 in *Excavating the Mind: Cross-Sections through Culture, Cognition and Materiality*. Edited by Niels Johannsen, Mads D. Jessen and Helle Juel Jensen. Aarhus: Aarhus University Press, 2012.

_____. “Colours in Bronze-Age Egyptian Art and Language.” Pages 170–87 in *Circumlitio: The Polychromy of Anqtique and Mediaeval Sculpture*. Edited by Vinzenz Brinkmann, Oliver Primavesi and Max Hollein. Frankfurt: Schriftenreihe der Liebighaus Skulpturensammlung, 2010.

_____. “The Origins, Development, Diffusion and Significance of Early Color Terminology.” Pages 65–96 in *Essays in Global Color History*. Edited by Rachael B. Goldman. Piscataway, NJ: Gorgias, 2016.

_____. “The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory.” *Lingua Aegyptia* 16 (2008): 213–59.

Wasserman, Nathan. “Piercing the Eyes: An Old Babylonian Love Incantation and the Preparation of Kohl.” *BO* 72 (2015): 601–12.

Watson, Francis. *Text, Church and the World: Biblical Interpretation in Theological Perspective*. Edinburgh: T&T Clark, 1994.

Watson, Wilfred G.E. “Loanwords in Semitic.” *Aula Orientalis* 23 (2005): 191–8.

van Wees, Hans. “Homeric Warfare.” Pages 668–93 in *A New Companion to Homer*. Edited by Ian Morris and Barry B. Powell. MnemSup 163. Leiden: Brill, 1997.

Weinreich, Uriel. *Languages in Contact: Findings and Problems*. The Hague: Mouton, 1963.

Welton, Rebekah. *‘He Is a Glutton and a Drunkard’: Deviant Consumption in the Hebrew Bible*. BibInt 183. Leiden: Brill, 2020.

Wenham, Gordon J. *Genesis 16–50*. WBC 2. Nashville, TN: Thomas Nelson, 2000.

Wesselius, Jan-Wim. *The Origin of the History of Israel: Herodotus' Histories as Blueprint for the First Books of the Bible*. JSOTSup 345. London: Sheffield Academic Press, 2002.

West, Martin. "The Date of the *Iliad*." *MH* 52 (1995): 203–19.

_____. "The Homeric Question Today." *Proceedings of the American Philosophical Society* 155 (2011): 383–93.

Westermann, Claus. "Beauty in the Hebrew Bible." Pages 584–602 in *A Feminist Companion to Reading the Bible: Approaches, Methods and Strategies*. Edited by Athalya Brenner and Carole Fontaine. Sheffield: Sheffield Academic Press, 1997.

_____. *Genesis 37–50: A Commentary*. London: SPCK, 1986.

Whorf, Benjamin Lee. "Language, Mind, and Reality (1941)." Pages 246–70 in *Language, Thought and Reality: Essays by Benjamin Lee Whorf*. Edited by John B. Carroll. Cambridge, MA: MIT Press, 1956.

Wiggerman, F.A.M. *Mesopotamian Protective Spirits: the Ritual Texts.* Groningen: Styx, 1992.

Willis, John T. "On the Interpretation of Isaiah 1:18." *JSOT* 25 (1983): 35–54.

Wilson, Ian Douglas. "Tyre, A Ship: The Metaphorical World of Ezekiel 27 in Ancient Judah." *ZAW* 125 (2013): 249–62.

Wilson, Robert R. "The Death of the King of Tyre: The Editorial History of Ezekiel 28." Pages 211–8 in *Love and Death in the Ancient Near East: Essays in Honor of Marvin H. Pope*. Edited by J.H. Marks. Guildford, CT: Four Quarters, 1987.

Wilson-Wright, Aren. "From Persepolis to Jerusalem: A Reevaluation of Old Persian-Hebrew Contact in the Achaemenid Period." *VT* 65 (2015): 152–67.

Winford, Donald. *An Introduction to Contact Linguistics.* Oxford: Blackwell, 2002.

Winter, Irene J. "Gold! Light and Lustre in Ancient Mesopotamia." Pages 153–71 in *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near*

East: 12th April–16th April 2010, British Museum and UCL, London. Edited by Roger Matthews and John Curtis. Wiesbaden: Harrassowitz, 2012.

_____. "Royal Rhetoric and the Development of Historical Narrative in Neo-Assyrian Reliefs." *Studies in Visual Communication* 7 (1981): 2–38.

_____. "The Aesthetic Value of Lapis Lazuli in Mesopotamia." Pages 43–58 in *Cornaline et pierres précieuses. La Méditerranée, de l'Antinquité à l'Islam*. Edited by Annie Caubet. Paris: Musée du Louvre, 1999.

van Wolde, Ellen. "One Bow or Another? A Study of the Bow in Genesis 9:8–17." *VT* 63 (2013): 124–49.

_____. "The God Ezekiel 1 Envisions." Pages 87–106 in *The God Ezekiel Creates*. Edited by Paul M. Joyce and Dalit Rom-Shiloni. LHBOTS 607. London: Bloomsbury T&T Clark, 2015.

Woodford, Susan. *An Introduction to Greek Art: Sculpture and Vase Painting in the Archaic and Classical Periods*. New York: Bloomsbury Academic, 2015.

Wright, David P., and Richard N. Jones. "Leprosy." *ABD* 4:277–82.

Yadin-Israel, Azzan "Contact of Hebrew with Other Languages." Pages 597–601 in *Encyclopedia of Hebrew Language and Linguistics: Volume 1: A-F*. Edited by Geoffrey Khan. Leiden: Brill, 2013.

Yahuda, A.S. "Hebrew Words of Egyptian Origin." *JBL* 66 (1947): 83–90.

Yamada, Frank M. *Configurations of Rape in the Hebrew Bible: A Literary Analysis of Three Rape Narratives.* New York: Peter Lang, 2008.

Yamagata, Naoko. *Homeric Morality.* Leiden: Brill, 1994.

Yang, Inchol. "The Metaphor of Tyre as a Ship in Ezekiel 27: Ezekiel's Resistance against the Neo-Babylonian Empire." *ExpTim* 131 (2019): 105–14.

Young, Ian., Robert Rezetko and Martin Ehrensvärd. *Linguistic Dating of Biblical Texts: Volume 1: An Introduction to Approaches and Problems*. New York: Routledge, 2014.

Zaia, Shana. "All That Glitters: Gold in the Royal Ideology of the Neo-Assyrian Empire." *Kaskal* 16 (2019): 409–30.

Zhakevich, Philip. "The Tools of an Israelite Scribe—A Semantic Study of the Terms Signifying the Tools and Materials of Writing in Biblical Hebrew." PhD diss., University of Texas-Austin, 2019.

Ziderman, I. Irving. "Purple Dyeing in the Mediterranean World: Characterisation of the Biblical *Tekhelet*." Pages 40–5 in *Colour in the Ancient Mediterranean World*. Edited by Liza Cleland and Karen Stears. BARIS 1267. Oxford: John and Erica Hedges, 2004.

_____. "Purple Dyes Made from Shellfish in Antiquity." *Review of Progress in Coloration* 1 (1986): 46–52.

_____. "Seashells and Ancient Purple Dyeing." *BA* 53 (1990): 98–101.

Zimmerli, Walther. *Ezekiel 1*. Hermeneia. Philadelphia, PA: Fortress, 1979.

_____. *Ezekiel 2*. Hermeneia. Philadelphia, PA: Fortress, 1983.

Zimmerman, Frank. "The Births of Perez and Zerah." *JBL* 64 (1945): 377–8.

Zohary, Daniel., Maria Hopf and Ehud Weiss. *Domestication of Plants in the Old World*. 4th ed. New York: Oxford University Press, 2012.

Zohary, Michael. *Plants of the Bible.* Cambridge, Cambridge University Press, 1982.

Zwickel, Wolfgang. "Die Edelsteine im Brustschild des Hohenpriesters und beim himmlischen Jerusalem." Pages 50–70 in *Edelsteine in der Bibel.* Edited by Wolfgang Zwickel. Mainz: von Zabem, 2002.

_____. "Färben in der Antike." Pages 41–4 in *Edelsteine in der Bibel*. Edited by Wolfgang Zwickel. Mainz: von Zabern, 2002.