Birkbeck
UNIVERSITY OF LONDON

BIROn - Birkbeck Institutional Research Online

Enabling Open Access to Birkbeck's Research Degree output

Life in photographs: archaeology, assemblage and temporality in the archive of O.G.S. Crawford

https://eprints.bbk.ac.uk/id/eprint/50430/

Version: Full Version

Citation: Hodgett, Beth (2022) Life in photographs: archaeology, assemblage and temporality in the archive of O.G.S. Crawford. [Thesis] (Unpublished)

© 2020 The Author(s)

All material available through BIROn is protected by intellectual property law, including copyright law.
Any use made of the contents should comply with the relevant law.

Deposit Guide
Contact: email

Beth Hodgett

Life in Photographs: Archaeology, Assemblage and Temporality in the Archive of O.G.S. Crawford

Thesis submitted in partial fulfillment of the requirements for the degree of PhD in Archaeology | Birkbeck, University of London | September 2022

I certify that all work contained herein, unless otherwise stated, represents my own original work.

Beth Hodgett | 30 September 2022 | Word Count: 99992

Abstract

The archaeologist Osbert Guy Stanhope Crawford (1886-1957) was a prolific photographer, taking over 10,000 photographs between 1931 and 1957. Crawford is well-known as the driving force behind the application of techniques of aerial photography to archaeology. For decades scholarship on archaeological photography has emphasized the links between archaeology, photography and the epistemic power dynamics of modernity. Archaeological photography has been characterized as temporally distant, as freezing time, and affecting a detached objective gaze. The distance of the aerial view has thus provided the perfect metaphor to speak of this framing of archaeological photography. And so, Crawford's archive is doubly trapped in webs of the aerial.

However, the photographs held in his archive in the Institute of Archaeology in Oxford offer a very different perspective; there is something intimate; a tactility and a close regard for small details that borders on the sentimental in the detailed studies of mushrooms, romantic views of cloud formations and sand dunes, and joking and irreverent snapshot of colleagues. Turning to look again at the contents of Crawford's photographic archive not only challenges perceptions of Crawford's aerial legacy, but pushes us to ask new questions of archaeological photography and to apply new methodological techniques for working with archaeological archive. In this thesis, drawing on the archaeological study of the formation of Crawford's archive—in conjunction with theories of temporality and assemblage—I make the case that far from Crawford's photography representing the detached and distant recording of 'facts', Crawford's photographic practice was a lively, dynamic and socially engaged practice.

Keywords: Archaeology, Photography, Archives, Temporality, Assemblage, Aerial View

Acknowledgements

Taking an assemblage approach to studying the formation of archaeological archives means adopting a mindset that rejects the vision of archaeology as the product of individual pioneering figures and seeks instead to approach any account of archaeological labour with an awareness of the collective production of archaeological knowledge. In a thesis that argues for the centrality of collaboration and co-production in the making of the archives and histories of archaeology, it is essential to recognise those whose influence, guidance, labour and friendship has been vital in shaping both my thinking and enabling the work that underpins this thesis. I can only send my most sincere and immeasurable thanks to those named below for their essential contributions to my research journey, and stress that any errors in the following work remain entirely my own.

To my supervisors Professor Jennifer Baird, Dr Lesley McFadyen, Dr Chris Morton and Professor Chris Gosden for shepherding me through the entire process with grace and patience. To Jen and Lesley who are consistent sources of intellectual inspiration, and have provided unerring guidance, support, knitting supplies, and timely reminders to stop writing, while remaining the perfect blueprint of badass women in archaeology. I promise I am working on my time management skills. To Chris Morton for providing so many opportunities at the Pitt Rivers Museum and for letting me barge into his office unannounced at all kinds of odd intervals to rush through new ideas, and to Chris Gosden who once spent an entire afternoon sitting with me in the British Museum listing my academic strengths so that I didn't feel like an imposter. To my examiners Professor Christina Riggs and Professor Alice Stevenson who were incredibly enthusiastic, insightful and supportive examiners, whose comments provided much food for thought and whose initial feedback leaned in to the running theme of Crawford's feet in ways that made me laugh out loud. I can only apologise for the paucity of cat photographs in the final version of the thesis, and promise that more will be forthcoming in the future. I am also immensely grateful to the AHRC's Collaborative Doctoral Partnership scheme whose funding made this project possible.

To Ian Cartwright who let me invade his office and set up shop there for five years as I worked my way through the archive, for being a sounding board and a trusty store of knowledge on all things photography, cycling and Crawford related. To Martyn Barber for many beer-fuelled rants about Crawford and for being a partner in crime in all cat based archival detective work on Twitter. To Professor Richard Bradley and Professor Barry Cunliffe for their very welcome company over many cups of coffee and for sharing their memories of the Institute of Archaeology over the years. To Dr Kitty Hauser for a taking the time to spend a very revealing coffee morning with me at the very start of the research process. To Professor Shadreck Chirikure whose passing observation sparked an

obsession with archaeological perspectives on time. To Dr Siobhan Shinn and Dr Loretta Kilroe for generously sharing their knowledge of Sudan with me, and for many excellent conversations about the craft of writing. To Dr Zoe Cormack for taking the time out of her maternity leave to help me make a totally unexpected connection between poetry and photography. To Dr Sally Crawford and Dr Katharina Ulmschneider of the Institute of Archaeology for much insightful discussion of archaeological archives, lantern slides and the history of the Jacobsthal collection. To Dr Joe Flatman and Nance Grace for their recollections of stuffed crocodiles. To Dr Rachel Pope, Dr Melanie Giles, Dr Julia Roberts and Emily Prtak for their incisive thoughts on the history of archaeology and particularly the role which women played in twentieth century archaeology.

To Dr Sue Brunning who arranged access to the Sutton Hoo archives held at the British Museum and who subsequently answered my veritable landslide of questions about the collection. To Colin Harris and Mary Clapinson who both spent so much time talking through the history of the Bodleian Library and their own personal remembrances of the Crawford collection at the Weston Library. To Cat Warsi who reached out with details of Crawford material held at the Griffith Institute leading me down an archival rabbit hole that eventually became Chapter Three, and to Francisco Bosch-Puche for subsequently clarifying several details pertaining to the accessioning of Crawford and Wellcome excavation material. To Karen Syrett of the British Academy for arranging access to some very revealing correspondence between Mortimer Wheeler and Crawford held at the British Academy. To Stephanie Boonstra, for combing the records of the Egypt Exploration Society for mentions of Crawford to no avail. To Ken Journeaux of St Bonniface Church Nursling, who helped me locate Crawford's grave and his extreme stoicism in the face of my emotional reaction to visiting it.

To Professor Dan Hicks, Hannah Eastham, Danielle Gilbert, Hadiqa Khan, Sydney Stewart Rose, and Rebekah Hodgkinson for a series of informal seminar meetings that have been so critical to developing my thinking around the topic of colonialism, racism and museum collections. To Dr Abbey Ellis for sharing the journey of balancing museum work and PhD research. To Jozie Kettle who helped me plan not one but three museum events at the Pitt Rivers Museum, and who sat through me giving the same talk four times in the space of a single month in November 2018. To Zena McGreevy and Alan Cook at the Pitt Rivers Museum whose invaluable input and guidance helped me bring the exhibition 'Footprints in the Sands of Time' into being in October 2021.

To Harry Adams who let me turn therapy sessions into chapter planning time and listened as I tried to disentangle the relationship between the threads of my own life and those of the thesis. And to Catherine Morton for her personal and professional support when I was newly diagnosed with dyslexia in the late stages of the writing process. I would also like to thank Adam Whittock and Sian

Green at Birkbeck for their unending patience as I grappled with the infernal intricacies of admin and paperwork.

To Samantha Brummage, who started this PhD journey with me and who has been a wonderful friend and guide to the world of archaeology, and to Jack Rowe for an insightful and stimulating crash course in phenomenology early on in the game. Here's to many more years of TAG get-togethers! To Paige, Adam and Nigel who provided much needed touchstones of sanity throughout a challenging year of full-time work—you know exactly what I mean! To Em Wilson-Black and Georgina Brooke for your patience and forbearance after I dropped off the face of the earth during a year of writing up. Thank you both for over a decade of the most wonderful friendship. To Madeleine Seale and Peter Harrison whose sage perspective on submission carried me through the final weeks of writing. To Neil Dowse, who took me flying over Wessex and who taught me to walk the countryside feeling the earth beneath my feet. I'm sorry that the thesis took me down a path that led away from the mountains. To the wonderful humans who occupied the Graduate Room at the Institute of Archaeology; Penny Coombe, Karl Smith, Adam Dawson, Julia Kotthaus, Siobhan Shinn, Katie Campbell, Emanuele Prezioso and Jenny Dammer your friendship is the real treasure I've found during the course of the PhD. A special mention to Karl Smith for reading my whole thesis, for turning up at the Fir Tree at 1am for a pint on the night I submitted and for introducing me to the joys of promontory fort spotting, and to Adam Dawson for graciously deigning to share possession of the Principality of Adamlandia (otherwise known as the Graduate Room hot desk) while in-person office working was still a thing, and for giving me a place to stay after I submitted (in case you're wondering I really do like living at Barrett Street). To Luca Hirst, Penny Coombe and Rosanna Sheehan there is so much to thank you for I don't think I can really do it justice but in no particular order; thank you for the crochet, Krav Maga, quilting, wild swimming in winter, long-distance cycling, Grumpus management, Blenheim Palace rants, the 30-day yoga challenge, climbing, work cafes, tattoos, zines, memes and ravsagne. I couldn't have made it through the pandemic without you all. And finally, to my parents—both photographers—who taught me to see the world with a camera in hand. I couldn't have done this without you.

Contents

1 O.G.S. Crawford's Feet: Photography and Archaeology 13

1.1 The Photographic Archive of O.G.S. Crawford (1886-1957) and a Problem of Perspective. 13

1.2 The Aerial Legacy of O.G.S. Crawford (1886-1957) 24

1.3 Archaeology, Photography, Absence and the Aerial View 29

1.3.1 Temporality, Absence and the Aerial View 29

1.3.2 Archives, Photography, Absence and the Aerial View 31

1.3.3 Archaeology, the Aerial and Modernity 33

1.4 Life in Photographs: The Archaeology of Archives 37

1.4.1 The Archaeology of Archives: Temporality 44

1.4.2 The Archaeology of Archives: Assemblage 49

1.5 Formation: A Long View 58

1.5.1 Accumulation 58

1.5.2 Structuring and Divestment 66

1.5.3 The Written Papers: Accumulation, Reformulation and Divestment 75

1.5.4 The Photographs: Accumulation and Divestment 80

1.6 Thesis Outline 91

2 On 'Suffolk Soil' 94

2.1 An absent-presence? Crawford at Sutton Hoo 94

2.2 Walking the Archaeological Walk 99

2.3 Inscribing Archaeological Movements 138

2.4 From Inscription to Incorporation 152

2.5 Crawford at the British Museum 180

2.6 Conclusions 194

3 'Our Footsteps in these Sands of Time' 200

3.1 Our Footsteps in these Sands of Time 200

3.2 Sudan 1913-1914 207

3.2.1 Jebel Moya 207

3.2.2 Abu Geili 213

3.3 'Beginning Again': 1950 223

3.3.1 'Rubbernecking Round Ruins' 227

3.3.2 Return to Abu Geili 239

3.4 The British Academy Middle Nile Expedition 1951-1952 241

3.4.1 The Rugged Adventurer and '*Terra Incognita*' 249
3.4.2 A First-Rate Field Archaeologist 267
3.5 Return to the Archive 281
4 'The Ground developed out of the Sky' 288
4.1 A Problem of Perspective 288
4.2 The Aerial in the Archive 295
4.3 The War from the Ground 298
4.4 Flying with the RFC: Watching the Weather 316
4.5 Returning to Ground 326
4.6 Learning to Walk 329
4.7 Weatherworlds, Cropmarks and Shadowsites 351
4.7.1 Weatherworlds 351
4.7.2 Cropmarks 352
4.7.3 Shadowsites 365
4.8 Assembling an Archive: Looking Up, Down and Around 381
5 Crawford from the Ground? Pathways and Perspectives 407
6 Bibliography 430
6.1 Archival Sources 430
6.2 Published Sources 431

List of Figures

Note: All figures are from the O.G.S. Crawford Photographic Archive, Institute of Archaeology, Oxford unless otherwise stated. All photographs by the author unless otherwise stated.

Figure 1.1 O.G.S. Crawford's Feet. Print 13.24. 14
Figure 1.2 Potato-Ridges. Print 10.41. 15
Figure 1.3 Sunrise. Print 49.6. 16
Figure 1.4 Horizontal Excavators. Print 35.26. 17
Figure 1.5 Stonehenge. Print 9.31. 18
Figure 1.6 Marx Site. Print 19.6. 19
Figure 1.7 Sudan. Print 17.75. 20
Figure 1.8 Fungi. Print 23.31. 21
Figure 1.9 Bird Imprint. Print 23.93. 22
Figure 1.10 The 'unmentionable apostate'. Print 39.12. 28
Figure 1.11 Co-existing temporalities and return in a photograph. 48
Figure 1.12 A Tempest of Letters. MS Crawford 75.46. 52
Figure 1.13 Carved cupmarks or natural formations? Print 9.30. 53
Figure 1.14 Photo-collage. Print 19.32. 55
Figure 1.15 The formation process. Diagram by the author. 57
Figure 1.16 Crawford and Belinda. Print 39.71. 59
Figure 1.17 One of the earliest photographs taken by Crawford. Print 35.100. 60
Figure 1.18 Rowing for Keble. Print 39.69. 61
Figure 1.19 Crawford on the Mana. Print 35.4. 62
Figure 1.20 Return to photography. Print 39.25. 63
Figure 1.21 The development of the negative register. 65
Figure 1.22 Crawford at his desk at the Ordnance Survey. Loose print in MS Crawford 75. 68
Figure 1.23 Geographical organisation of the archive. Print 8.82. 69
Figure 1.24 Cross-references. Print 10.83. 70
Figure 1.25 'For Your Album'. Print 19.34. 71
Figure 1.26 'Excuse cat-marks'! MS Crawford 74.138. 71
Figure 1.27 The last photograph sent by Crawford. MS Crawford 76.162. 73
Figure 1.28 Edwards' note on the last photograph sent by Crawford. MS Crawford 76.162. 74
Figure 1.29 Crawford's Uncatalogued Papers. Photograph by Martyn Barber (2015). 77
Figure 1.30 Re-boxing Crawford's papers I. 78
Figure 1.31 Re-boxing Crawford's papers II. 78
Figure 1.32 Enforcing the archival order. 79
Figure 1.33 Mary Clapinson's handwriting. 79
Figure 1.34 Photographs in the Archaeological Imaging Unit. 85
Figure 1.35 The O.G.S. Crawford Photographic Archive. Photograph by Ian Cartwright. 85
Figure 1.36 Academic genealogies on display. 86
Figure 1.37 Box 50. 87
Figure 1.38 'To go to the Ashmolean with the albums'. Envelope in Box 50. 88
Figure 1.39 Note from R.F.O at the Ashmolean. Print 39.44. 89
Figure 1.40 The Jacobsthal Archive. Fig.2 in Hitchcock (2020). 90
Figure 1.41 'Jacobsthal' on Box 18 of the Crawford Archive. 90
Figure 2.1 Crawford's feet at Sutton Hoo. Print 2.114. 97
Figure 2.2 Approximate vantage points used by Crawford. Diagram by the author adapted from Care-Evans (1994). 98
Figure 2.3 Peggy Piggott's photograph of the purse. Print 2.16. 101

FIGURE 2.4 COOKSON 77/ A511043. SUTTON HOO ARCHIVE. DEPARTMENT OF BRITAIN, EUROPE AND PREHISTORY, BRITISH MUSEUM. PHOTOGRAPH BY THE AUTHOR. 104
FIGURE 2.5 COOKSON 1.2. SUTTON HOO ARCHIVE. DEPARTMENT OF BRITAIN, EUROPE AND PREHISTORY, BRITISH MUSEUM. PHOTOGRAPH BY THE AUTHOR. 104
FIGURE 2.6 COOKSON 1.3. SUTTON HOO ARCHIVE. DEPARTMENT OF BRITAIN, EUROPE AND PREHISTORY, BRITISH MUSEUM. PHOTOGRAPH BY THE AUTHOR. 105
FIGURE 2.7 COOKSON 1.4. SUTTON HOO ARCHIVE. DEPARTMENT OF BRITAIN, EUROPE AND PREHISTORY, BRITISH MUSEUM. PHOTOGRAPH BY THE AUTHOR. 105
FIGURE 2.8 COOKSON'S VANTAGE POINTS. DIAGRAM BY THE AUTHOR. 106
FIGURE 2.9 COOKSON AND CAMERA ON THE COVER OF PHOTOGRAPHY FOR ARCHAEOLOGISTS (1954). 108
FIGURE 2.10 THE FIRST PHOTOGRAPH TAKEN BY CRAWFORD AT SUTTON HOO. PRINT 2.22 109
FIGURE 2.11 REVERSE OF PRINT 2.22. 110
FIGURE 2.12 THE FIRST PHOTOGRAPHS TAKEN BY CRAWFORD AT SUTTON HOO. PRINTS 2.22, 2.98, 2.97, 2.127, 2.1 & 2.2. .. 113
FIGURE 2.13 AREAS OF THE BURIAL DEPOSIT COVERED BY CRAWFORD'S PHOTOGRAPHS ON 25TH JULY. DIAGRAM BY THE AUTHOR. 114
FIGURE 2.14 NUMBER OF PHOTOGRAPHS OF EACH FIND TAKEN BY CRAWFORD ACROSS THE FIVE DAYS. FIGURE CALCULATED BY TALLYING THE OBJECTS CRAWFORD EXPLICITLY LABELS AS THE SUBJECT OF HIS PHOTOGRAPHS EITHER ON THE PRINTS THEMSELVES OR IN HIS NEGATIVE REGISTER. 115
FIGURE 2.15 COVER OF ANTIQUITY (MARCH 1940). PHOTOGRAPH BY THE AUTHOR. 117
FIGURE 2.16 PHOTOGRAPHS OF CRAWFORD AND COLLEAGUES IN BOX TWO. COUNT TALLIED BY AUTHOR AND DOES NOT REFLECT PERSONS NAMED IN CRAWFORD'S CAPTIONS 119
FIGURE 2.17 HUMAN SCALES IN COOKSON'S PHOTOGRAPHY. PLATE 18 IN CONLON (1973). 119
FIGURE 2.18 GRIMES RECLINING. PRINT 2.63. 120
FIGURE 2.19 FORSDYKE EXAMINING THE CLASPS. PRINT 2.103. 121
FIGURE 2.20 GRIMES LOOKING 'PEEVED'. PRINT 2.64. 122
FIGURE 2.21 PHILLIPS AND GRIMES MIRROR EACH OTHER'S POSES. PRINT 2.32. 123
FIGURE 2.22 CLARK, GRIMES AND P. PIGGOTT. PRINT 2.24. 124
FIGURE 2.23 REAR ELEVATION. PRINT 2.43. 125
FIGURE 2.24 RELAXING AT SUTTON HOO. PRINT 2.51. 127
FIGURE 2.25 TEA TIME AT SUTTON HOO. UNNUMBERED PRINT AMONGST CRAWFORD'S NEGATIVES. PHOTOGRAPHER UNKNOWN. BRITISH MUSEUM. 128
FIGURE 2.26 THE CROCODILE OF MAIDEN CASTLE. PRINT 39.89. 129
FIGURE 2.27 HORIZONTAL EXCAVATORS. PRINT 35.26. 130
FIGURE 2.28 CRAWFORD IN ACTION. DETAIL OF PRINT A. BASIL BROWN PHOTO ALBUM. BLACK VOLUME. BRITISH MUSEUM. 132
FIGURE 2.29 CRAWFORD IN CONVERSATION. PRINT 83. BASIL BROWN PHOTO ALBUM. BLACK VOLUME. BRITISH MUSEUM. 132
FIGURE 2.30 CRAWFORD WITH HIS ROLLEIFLEX CAMERA. PRINT 39.29 134
FIGURE 2.31 SPOONER, JACOBS AND FULLER AT SUTTON HOO. PRINTS 35-38. BASIL BROWN PHOTO ALBUM. RED VOLUME. BRITISH MUSEUM. 135
FIGURE 2.32 UNNAMED ARCHAEOLOGISTS AT SUTTON HOO. PRINTS 45-48. BASIL BROWN PHOTO ALBUM. BLACK VOLUME. BRITISH MUSEUM. 136
FIGURE 2.33 BROWN AND PHILLIPS. PRINT H. BASIL BROWN PHOTO ALBUM. RED VOLUME. BRITISH MUSEUM. 136
FIGURE 2.34 UNNAMED EXCAVATORS WITH BROWN SECOND FROM LEFT. PRINT 2.62. 137
FIGURE 2.35 CHAOS AND DISCIPLINE. PLATE FOUR IN WHEELER (1954). 140
FIGURE 2.36 DIAGRAM SHOWING THE DIFFERENT METHODS OF EXCAVATION APPLIED TO EACH MOUND AT SUTTON HOO. FIGURE 3.3 IN M. CARVER (2017). 141
FIGURE 2.37 THE COVER OF C.W. PHILLIPS' AUTOBIOGRAPHY. PHILLIPS (1987). 142
FIGURE 2.38 BASIL BROWN DURING THE LIFTING OF THE STAND. PRINT 2.89. 144
FIGURE 2.39 BROWN ON THE PERIPHERY. PRINT 2.115. 145
FIGURE 2.40 ANTIQUARIAN BARROW DIGGING. PLATE 1 IN WHEELER (1954). 146
FIGURE 2.41 FOOTPRINTS IN THE SOIL. PRINT 32. BASIL BROWN RED PHOTO ALBUM. BRITISH MUSEUM. 148
FIGURE 2.42 STANDING ON SPOIL. DETAIL FROM PRINT 2.87. 149
FIGURE 2.43 BROWN'S WELLINGTON BOOTS. PRINT 2.69. 151
FIGURE 2.44 THE TRENCH AT SUTTON HOO. COLLAGE MADE FROM CRAWFORD'S PHOTOGRAPHS BY THE AUTHOR. 154

FIGURE 2.45 EASTERN ENTRANCE TO THE BURIAL CHAMBER TRAMPLED DOWN BY FOOTPRINTS. PRINT 2.21. 155
FIGURE 2.46 LADDER USED FOR ACCESS. PRINT 2.18. 156
FIGURE 2.47 STEPS DOWN INTO THE CHAMBER. PRINT 2.23. 157
FIGURE 2.48 THE TRENCH EARLY IN THE EXCAVATION. PRINT 32. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 158
FIGURE 2.49 THE TRENCH EARLY IN THE EXCAVATION. PRINT 31. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 158
FIGURE 2.50 THE TRENCH IN AUGUST. PHOTOGRAPH BY BARBARA WAGSTAFF. W 56/77. BRITISH MUSEUM. 159
FIGURE 2.51 A LINE MADE BY WALKING (1967). RICHARD LONG. TATE. 160
FIGURE 2.52 LOOKING DOWN INTO THE TRENCH. PRINT 2.84. 162
FIGURE 2.53 LOOKING UP OUT OF THE TRENCH. PRINT 2.19. 163
FIGURE 2.54 SIGN WARNING THE PUBLIC TO KEEP OUT. DETAIL FROM LACK 5.10. BRITISH MUSEUM. 164
FIGURE 2.55 CRAWFORD'S APPROXIMATE VANTAGE POINTS FOR EACH PHOTOGRAPH. DIAGRAM BY THE AUTHOR. 165
FIGURE 2.56 SHADOWS. PRINT 2.96. 166
FIGURE 2.57 FOOT, ARM AND SHADOW. PRINT 2.68. 167
FIGURE 2.58 BASIL BROWN USING THE SAME VANTAGE POINT AS O.G.S. CRAWFORD. PRINT 86. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 168
FIGURE 2.59 CRAWFORD USING THE SAME VANTAGE POINT AS BASIL BROWN. PRINT 2.51. 169
FIGURE 2.60 LYONS, FULLER, SPOONER AND JACOBS OBSERVING FROM THE WALKWAY. DETAIL FROM UNLABELLED PRINT. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 170
FIGURE 2.61 CRAWFORD'S FEET. COLLAGE BY THE AUTHOR. 171
FIGURE 2.62 PHOTOGRAMMETRY MODEL OF THE SWORD AND CLASPS COMPLEX. 174
FIGURE 2.63 STRADDLING THE SOIL. PRINT 79. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 174
FIGURE 2.64 STEPPING AROUND THE BUCKET. PRINT 2.118. 175
FIGURE 2.65 A "PRECARIOUS BALANCING DISPLAY". PRINT 41.8. 176
FIGURE 2.66 CONTACT PRINT AND NEGATIVE 326/2. O.G.S. CRAWFORD NEGATIVE COLLECTION. BRITISH MUSEUM. 177
FIGURE 2.67 PRINT FROM NEGATIVE 326/2 IN BOX TWO. PRINT 2.57. 178
FIGURE 2.68 PARALLAX ERROR. SKETCH BY THE AUTHOR. 179
FIGURE 2.69 PRINTERS INSTRUCTIONS. O.G.S.C 184. BRITISH MUSEUM. 182
FIGURE 2.70 DOODLES ON THE CARDBOARD MOUNTS. O.G.S.C 317/7. BRITISH MUSEUM. 182
FIGURE 2.71 MULTIPLE PRINTS IN THE ARCHIVE. O.G.S.C 100. BRITISH MUSEUM. 183
FIGURE 2.72 DISCOLOURATION AND DAMAGE TO PRINTS. O.G.S.C 207. BRITISH MUSEUM. 183
FIGURE 2.73 RUSTED PIN HOLES. O.G.S.C 108. BRITISH MUSEUM. 184
FIGURE 2.74 CHEMICAL DAMAGE. O.G.S.C 160. BRITISH MUSEUM. 184
FIGURE 2.75 "THE STANDARD IN SITU". O.G.S.C 198. BRITISH MUSEUM. 187
FIGURE 2.76 "S.P'S 15" PEG ON BASELINE". OGSC 139. BRITISH MUSEUM. 187
FIGURE 2.77 DETAIL. O.G.S.C 139. BRITISH MUSEUM. 188
FIGURE 2.78 MYSTERY OBJECT. O.G.S.C 113. BRITISH MUSEUM. 188
FIGURE 2.79 CROPPING OUT GRIMES. O.G.S.C 114. BRITISH MUSEUM. 190
FIGURE 2.80 LIST OF MISSING NEGATIVES. O.G.S.C NEGATIVE INDEX CARDS. BRITISH MUSEUM. 191
FIGURE 2.81 FRONT VIEW. O.G.S.C 120. BRITISH MUSEUM. 192
FIGURE 2.82 CONFUSION OVER THE WHETSTONE. REVERSE OF O.G.S.C 120. BRITISH MUSEUM. 192
FIGURE 2.83 CONFUSION OVER DATES. SCREENSHOT FROM THE NATIONAL TRUST TWITTER ACCOUNT. 17TH JULY 2019. 194
FIGURE 2.84 DOUBLE EXPOSURE IN BROWN'S PHOTO ALBUM. PRINT 64. BASIL BROWN BLACK PHOTO ALBUM. BRITISH MUSEUM. 197
FIGURE 2.85 DOUBLE EXPOSURE IN BOX TWO. PRINT 2.45 198
FIGURE 3.1 THE BEAUTY OF THE SAND DRIFT. PRINT 17.86. 202
FIGURE 3.2 CRAWFORD'S FATHER'S GRAVE. PRINT 39.86. 203
FIGURE 3.3 JEBEL MOYA AND ABU GEILI. FIG. 1 IN BRASS AND SCHWENNIGER (2013). 208
FIGURE 3.4 CHAOS AND DISCIPLINE. WHEELER (1954). 212
FIGURE 3.5 FLOOR LEVELS AT ABU GEILI. DETAIL FROM PLATE VIII IN CRAWFORD AND ADDISON (1951). 216
FIGURE 3.6 THE UNNAMED ARCHAEOLOGIST. DETAIL OF PLATE VI IN CRAWFORD AND ADDISON (1951). 219
FIGURE 3.7 'POMP AND CEREMONY' AT ABU GEILI. PRINT 35.10. 220
FIGURE 3.8 REINCORPORATING MATERIAL IN THE ARCHIVE. MS CRAWFORD 95.100 225
FIGURE 3.9 THE KHALIFA'S HOUSE. PRINT 27.2. 229

Figure 3.10 The Mahdi's Tomb and Khalifa's House. (Budge 1905). 230
Figure 3.11 The Mahdi's Tomb and the Khalifa's House. Print 27.72. 231
Figure 3.12 Muhammad Adriz. Print 27.35. 234
Figure 3.13 'Relics' of Marx & Lenin. Print 19.5. 237
Figure 3.14 Photographs by Flinders Petrie. Print 14.120. 238
Figure 3.15 Return to Abu Geili. Print 27.27. 240
Figure 3.16 'After Linant de Bellefonds'. Print 14.143. 243
Figure 3.17 The Castle at Hetani in 1950. Print 37.136. 244
Figure 3.18 The Castle at Hetani after Linant de Bellefonds. Print 37.137. 245
Figure 3.19 The Middle Nile Region. Composite map generated by the author combining two maps originally published in Crawford (1953b). 247
Figure 3.20 A Table in the Wilderness. Print 16.121. 252
Figure 3.21 River view at Wad Medani. Print 27.25 254
Figure 3.22 Sennar after Russegger. Print 14.148. 255
Figure 3.23 Kuweib. Print 17.75. 257
Figure 3.24 Panorama. Prints 16.108 & 16.107. 258
Figure 3.25 Footprints in the sand at El Kab. Print 17.43. 259
Figure 3.26 Footprints in the Sand. Print 17.44. 260
Figure 3.27 Gandeisi. Print 16.41. 262
Figure 3.28 Market at Suki. Print 27.37. 263
Figure 3.29 Sesame press at work. Print 27.44 264
Figure 3.30 The Ferry Crossing in 1950. Print 37.133. 265
Figure 3.31 Crawford, three unnamed figures and Faqir at Goz Regeb. Print 17.21. 269
Figure 3.32 Crawford, Faqir, Hasan and three unnamed figures. Print 17.24. 270
Figure 3.33 Mohammed Abbas. Initials scored into print. Detail from Print 17.25. 271
Figure 3.34 The Sneeze. Print 17.102. 275
Figure 3.35 Faqir at El Kab. Print 17.41. 278
Figure 3.36 The Bedford truck and rod scales. Print 17.18. 279
Figure 3.37 Crawford material in the Griffith Institute. 283
Figure 3.38 Dust in the Archive. 286
Figure 4.1 The Sky from the Ground. Print 49.16. 289
Figure 4.2 The Ground from the Sky. Print 28.19. 290
Figure 4.3 The Ground. Print 10.41. 291
Figure 4.4 Fungi. Print 23.31. 292
Figure 4.5 Standlake photographed by George Allen. Print 10.20. 297
Figure 4.6 The worn edges of Print 28.1 298
Figure 4.7 Folded Panorama. Print 28.49. 301
Figure 4.8 Panorama of Arras Station. Print 28.49. 302
Figure 4.9 Prints hanging out to dry. Print 28.10. 303
Figure 4.10 The View from Above. Print 28.176. 304
Figure 4.11 Crawford's Vantage Point. Print 28.175. 305
Figure 4.12 The First World War in Said and Done. 308
Figure 4.13 Explosion marking the start of the Battle of the Somme. Print 28.162. 309
Figure 4.14 The View from the Trenches. Print 28.6. 310
Figure 4.15 The ruins of Fricourt Church. Print 28.158. 311
Figure 4.16 Crawford towards the end of the War. Print 35.3. 312
Figure 4.17 Looking to the Sky. Print 28.48. 313
Figure 4.18 Nebula. Print 49.2. 314
Figure 4.19 Lunar Rainbow. Print 21.114. 315
Figure 4.20 Sunrise over Vesuvius. Print 49.6. 320
Figure 4.21 The Drama of the Weather. Print 49.3. 321
Figure 4.22 Lightning Strike. Print 49.14. 322
Figure 4.23 Lightning Strike by C.J.P. Cave. Print 49.16. 323

Figure 4.24 Spatial relationships of the aerial photographs in Box 28. Photograph by the author. 327
Figure 4.25 Adnifer Wood. Print 28.19. 328
Figure 4.26 Crawford's Feet. Print 13.24. 330
Figure 4.27 Acknowledgements, Williams-Freeman (1915). 334
Figure 4.28 Path of a Roman road. Print 13.117. 337
Figure 4.29 Remains of a ploughed Roman road. Print 13.23. 338
Figure 4.30 To the side of a Roman road. Print 13.25. 339
Figure 4.31 Colour contrast in soil marks. Print 13.116. 340
Figure 4.32 A bird's wings in the snow. Print 23.98. 342
Figure 4.33 Daises. Print 23.26. 343
Figure 4.34 The Andover District, Sheet 283 (1895). Scan by the National Library of Scotland. 344
Figure 4.35 Salvaged church masonry. Print 21.151. 348
Figure 4.36 The ruins of Southampton. Print 30.126. 349
Figure 4.37 Rubble in Southampton. Print 30.64. 350
Figure 4.38 Postern Hill from the ground. Print 3.108. 354
Figure 4.39 Postern Hill from the air. Print 3.109. 355
Figure 4.40 Cropmarks at Porchester Castle. Crawford (1938f). 356
Figure 4.41 Crop-marks in 'Neolithic Dewponds and Cattleways' (1907). 358
Figure 4.42 Roman fort at Ward Law. Print 13.88. 360
Figure 4.43 Bertha Roman fort. Print 13.131. 361
Figure 4.44 Cropmarks from the ground. Print 3.110. 362
Figure 4.45 Summer and Winter. Print 10.22. 364
Figure 4.46 Lynchet Time. Print 5.1. 366
Figure 4.47 Cultivation terraces in angled light. Print 5.20. 367
Figure 4.48 Cultivation terraces in flat light. Print 3.111. 368
Figure 4.49 Plough ridges. Print 10.41. 369
Figure 4.50 Is this a dagger I see before me? Print 9.16. 373
Figure 4.51 Stone 53 without sun. Print 9.17. 374
Figure 4.52 Stone 53 in angled natural light. Print 9.11. 375
Figure 4.53 Stone 53 in angled artificial light. Print 9.12. 376
Figure 4.54 Sarsen or plough ridges? Print 9.31. 378
Figure 4.55 An optical illusion. Print 9.119. 379
Figure 4.56 Possible stereoscopic pair. Unnumbered prints in MS Crawford 101. 380
Figure 4.57 Roman Fortlet. Print 13.110. 384
Figure 4.58 An 'amusing deception'. Print 13.109. 385
Figure 4.59 Greener Grass. Print 10.34. 386
Figure 4.60 Anhydrous Ammonia. Print 10.45. 387
Figure 4.61 Interpretive sketch. Print 48.82. 392
Figure 4.62 Roman road looking south-west. Print 13.100. 393
Figure 4.63 Roman road in opposite direction. Print 13.101. 394
Figure 4.64 Cross-references. Print 5.52. 397
Figure 4.65 Fungi on beech tree. Print 23.29. 398
Figure 4.66 Fungi. Print 23.31. 399
Figure 4.67 Fungi on a tree stump. Print 23.28. 400
Figure 4.68 Fungi study. Print 23.30. 401
Figure 4.69 'A wonderful gleam'. Print 48.2 402
Figure 5.1 The popular vision of Crawford. Print 35.32. 410
Figure 5.2 Buffalo trails. Print 23.4. 417
Figure 5.3 Cats and sunflowers at Hope Villa. 424

1 O.G.S. Crawford's Feet: Photography and Archaeology

1.1 The Photographic Archive of O.G.S. Crawford (1886-1957) and a Problem of Perspective

Let me start with a photograph. At first glance Print 13.24 (Figure 1.1) might easily be dismissed as unremarkable. The majority of the frame is taken up by the rough textures and shapes of broken clods of earth and scattered stones. At the bottom of the print half-hidden in the sharply angled shadow are a pair of boots. The boots have seen much wear; there are scuffs and scrapes, deeply incised creases worn into the smooth grain of the leather by the repeated motion of the ball of the foot flexing as it meets the earth. Unlike the classic images of archaeology which permeate popular culture and discussions of archaeological photography—visions of lost ruins, ancient monuments and buried treasure—Print 13.24 is the material trace of a far more mundane kind of archaeological fieldwork. Nor does the print display the kind of technically polished visualisation that archaeologists use to communicate their practice with other archaeologists in published journals and manuscripts. There is something deeply informal in the sight of the archaeologist's feet on the earth. But how might this photograph, and those like it help us think about archaeology and photography in an entirely new way?

The archaeologist Osbert Guy Stanhope Crawford (1886-1957) was a prolific photographer, taking approximately 10,000 photographs between 1931 and 1957. Today these prints are held in the Institute of Archaeology in Oxford. An associated collection of Crawford's written papers (MS Crawford 1-136) is held by the Bodleian Library. Each of the prints in the photographic archive have been carefully mounted on loose sheets of card; the mounts are labelled with locations, negative numbers, dates and times. The photographer's handwriting is directed to me, the viewer of the future.[1] His notes feel like private messages stretched across time. This was more than just an exercise in preservation, this was a labour of love. The archive's contents span a bewildering array of themes. Though one might expect to find the studies of plough ridges, Roman roads and excavation documentation (e.g., Figure 1.2); mixed in among these archaeological record shots are a far more esoteric range of subjects. There are stunning black and white studies of rainbows and sunsets, snapshots of friends and colleagues (Figure 1.3 & Figure 1.4). A box labelled "Stonehenge" does not contain a single image of the monument, instead featuring street scenes of Southampton, though Stonehenge does appear in the otherwise unlabelled Box 9 (Figure 1.5). There are 29 photographs—made famous by Crawford's biographer Kitty Hauser—which document locations in which Karl Marx

[1] A different hand has discreetly added a set of reference numbers in pencil on the top right-hand corner of each mount. It is these reference numbers which I refer to throughout this thesis.

lived and worked (Figure 1.6), but there are also over 500 photographs of castles and churches dotting the Nile in Sudan that have been almost forgotten in accounts of Crawford's life (Figure 1.7). More unexpectedly still are two whole boxes—around 300 photographs—devoted to capturing details like flowers dotting the ground near Crawford's house, the texture of the gills on the underside of a mushroom, or the imprints left by a bird's wings on the snow (Figure 1.8 & Figure 1.9).

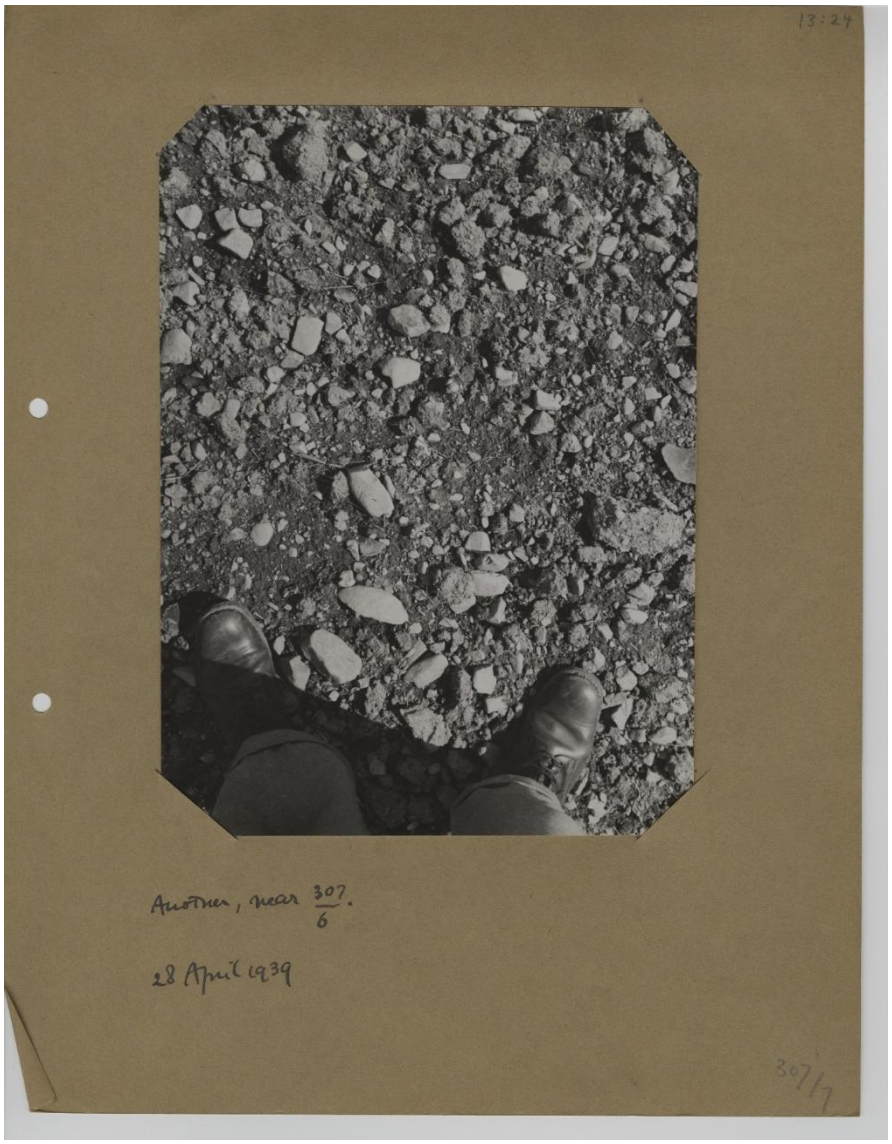


Figure 1.1 O.G.S. Crawford's Feet. Print 13.24.



Figure 1.2 Potato-Ridges. Print 10.41.

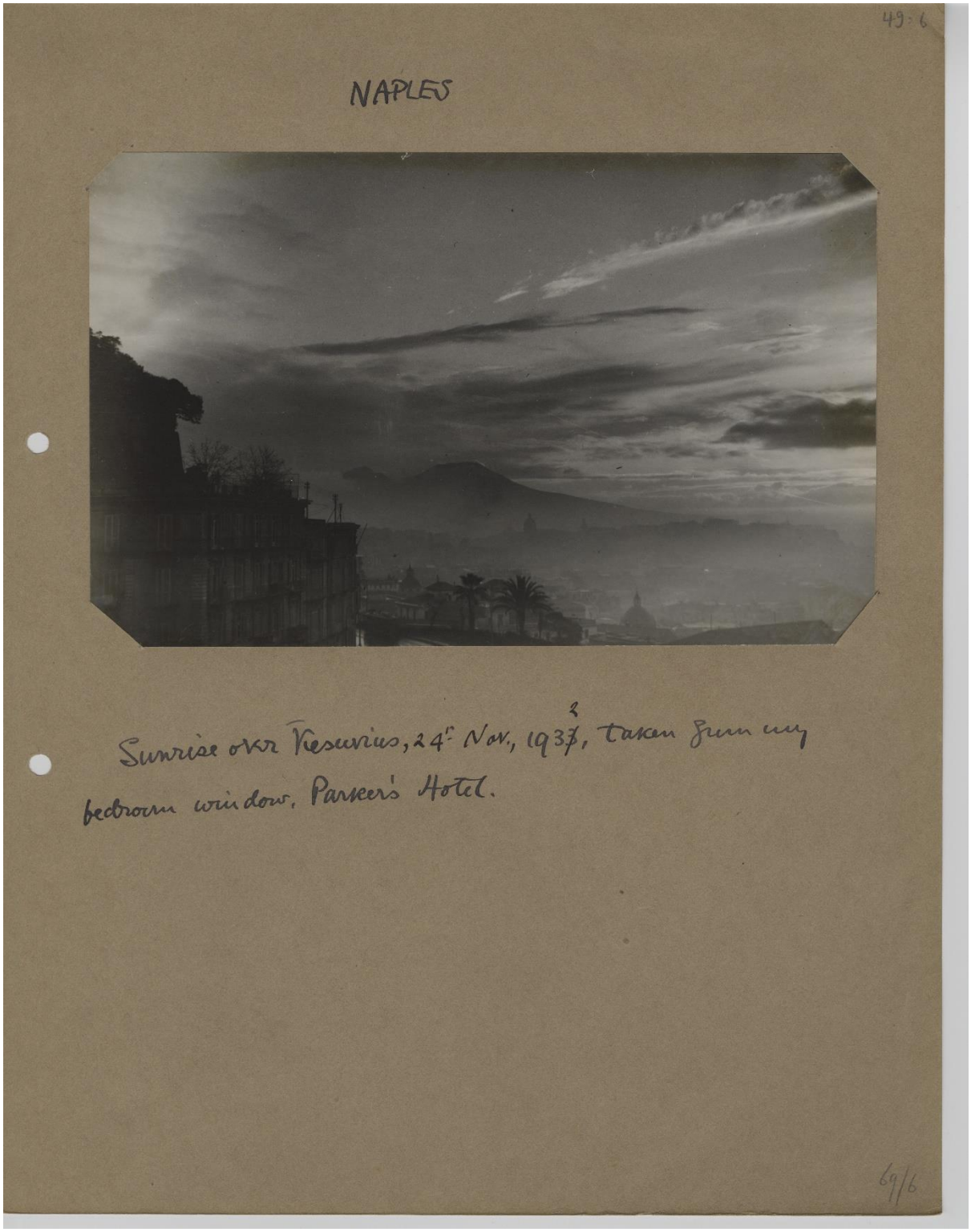


Figure 1.3 Sunrise. Print 49.6.



Figure 1.4 Horizontal Excavators. Print 35.26.

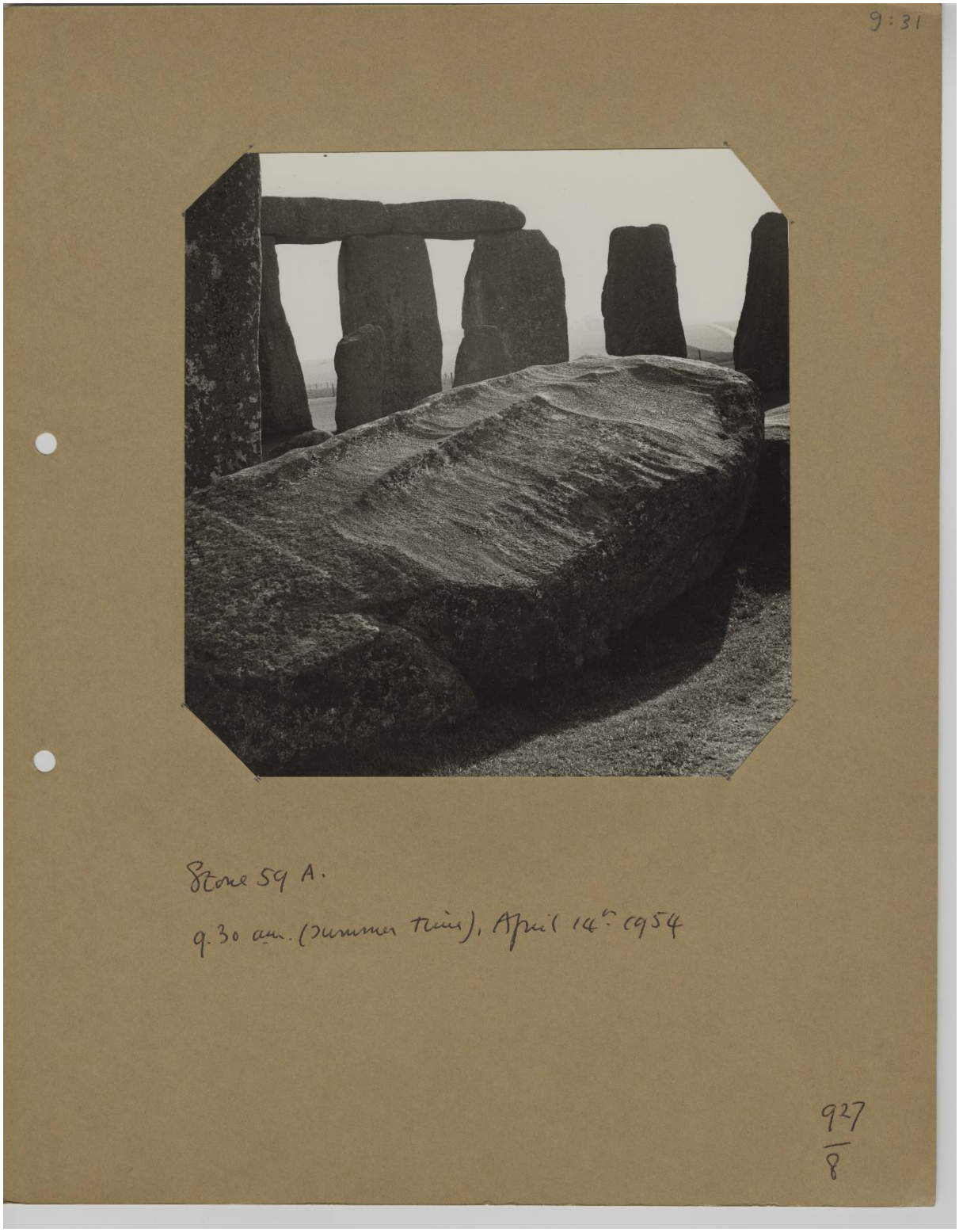


Figure 1.5 Stonehenge. Print 9.31.

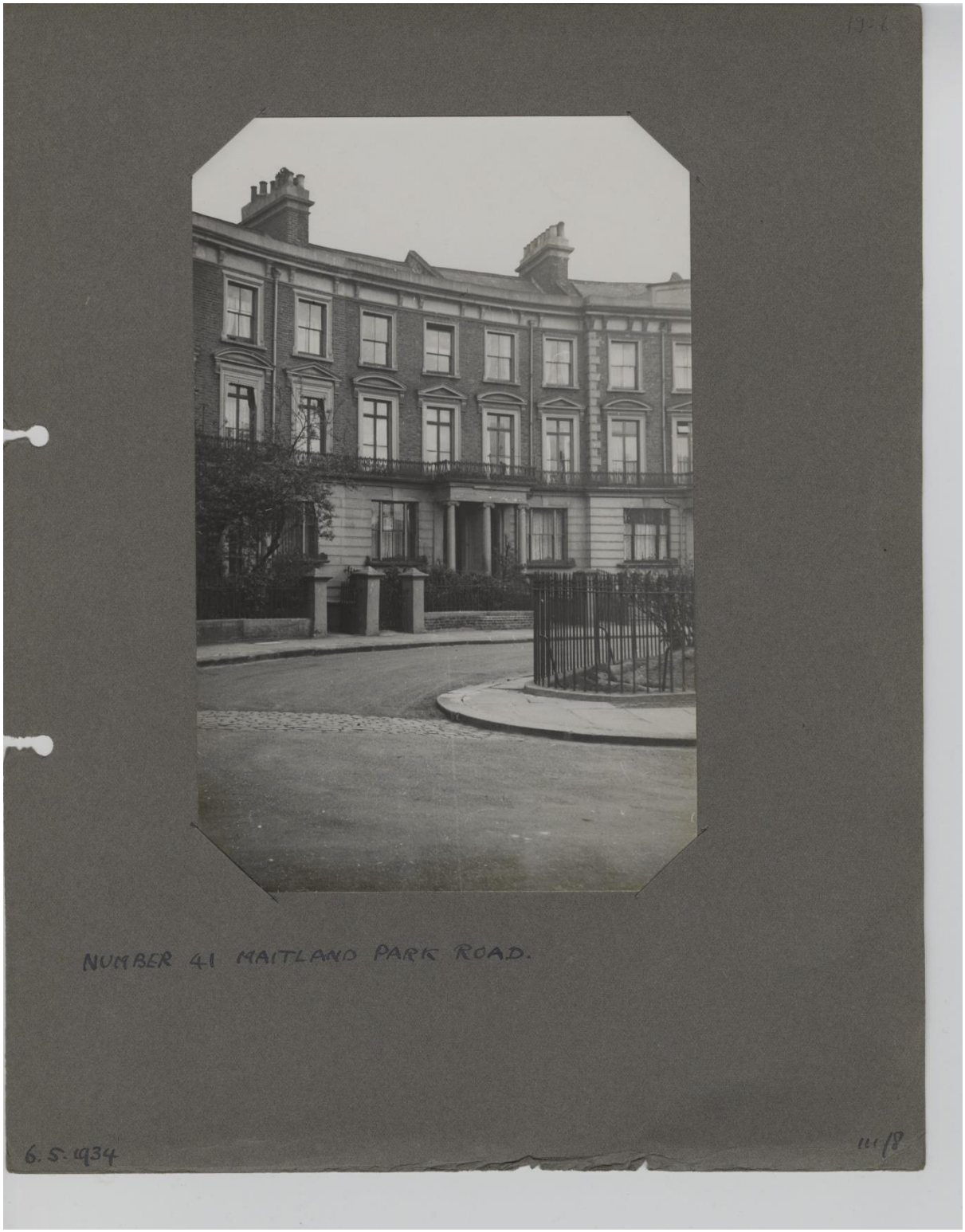


Figure 1.6 Marx Site. Print 19.6.

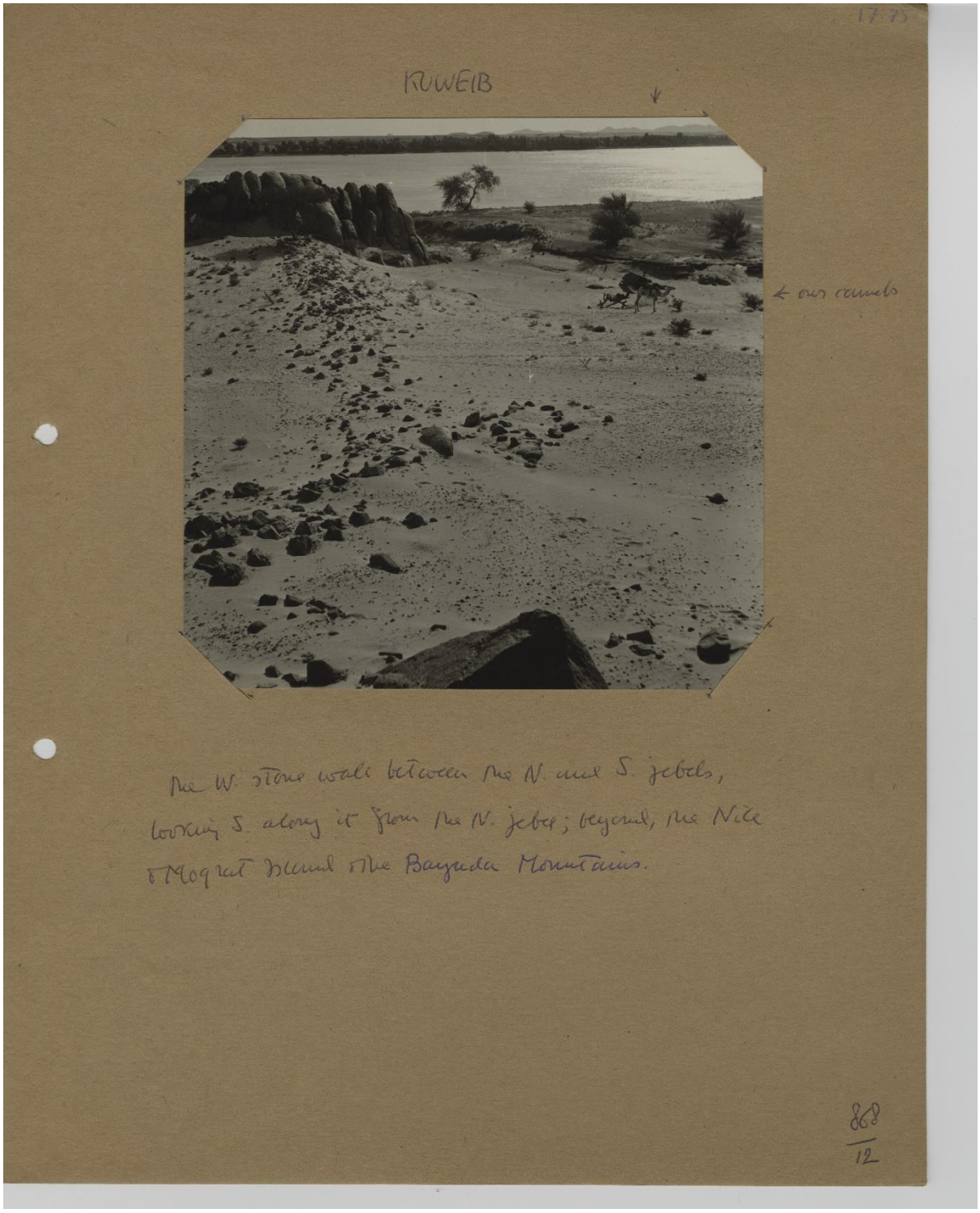


Figure 1.7 Sudan. Print 17.75.

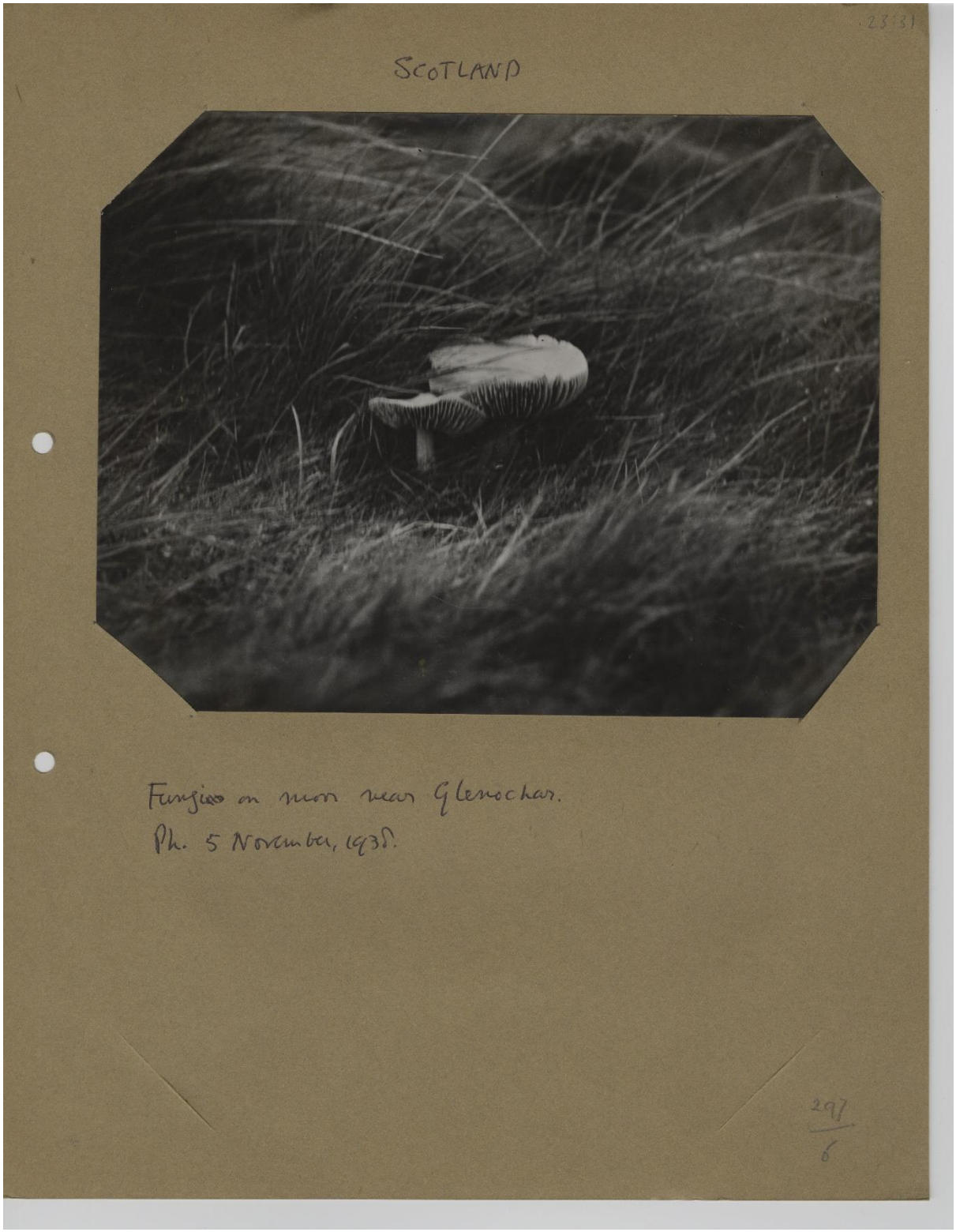


Figure 1.8 Fungi. Print 23.31.

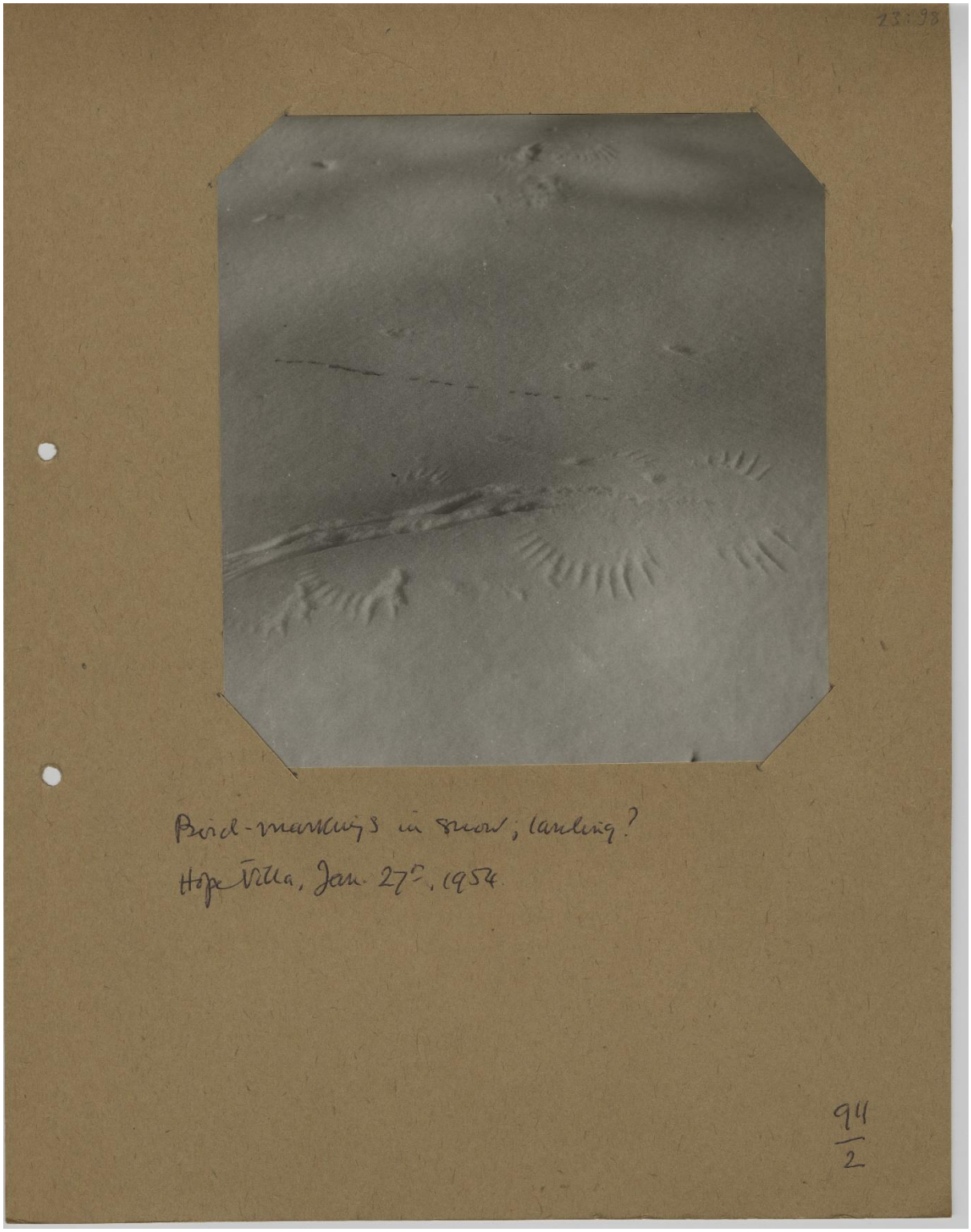


Figure 1.9 Bird Imprint. Print 23.93.

It was my encounter in the archive with these far more unexpected photographs that led me to formulate the research questions that underpin this thesis: What did Crawford hope to achieve in assembling this photographic collection? How did it come to be here, in this form? And how might my own reading of these photographs brush against the ways in which Crawford, his archive and archaeological photography had been understood by previous generations of researchers? Throughout the research process it was by leaning into these unexpected photographs and the questions which they raised that subsequently opened up new ways of speaking about the relationship between archaeology and photography. Uniting each of these questions is an interest in the processes by which photographs come-into-being, how and why they are taken, and how they are subsequently used, deposited in archival collections, re-used, reinterpreted and disseminated throughout their lives. I expand upon the significance of studying the formation of archaeological archives in Sections 1.4 and 1.5, but for the meantime it is helpful to first set out the ways in which researchers have previously responded to Crawford's photographic practice and his legacy more broadly.

Throughout the course of my research on the archive I became its unofficial custodian, tasked with responding to enquiries from researchers and it quickly became evident that the archive and Crawford suffered from a problem of perspective. Many of the researchers who contacted me were under the impression that the archive was a cache of aerial photographs.[3] This was unsurprising given that the archive's online presence consisted of a single paragraph on the Institute's blog entitled "O.G.S. Crawford: The 'Father' of Aerial Archaeology in England" (Institute of Archaeology 2011). Likewise, the two major published studies which explore Crawford's photographic practice are predominately focused upon his aerial work (Hauser 2007, 2008). While aerial photographs can be found in the archive, these comprise only a small percentage of the archive's total contents.[4] Moreover, as Bowden (2001) and Barber (2015) have emphasised Crawford only rarely took aerial photographs himself, his aerial archaeology was far more concerned with aerial observation and encouraging, collecting and promoting the aerial photography of others. It is evident—even from the examples given above—that Crawford's photographic work was far more expansive than these enquiries assumed. Moreover, there was something fundamentally terrestrial about the photographs in the archive. To borrow a phrase from Barber, it was not simply that these photographs were taken with Crawford's "feet firmly on the ground" (2015:34). I thought I detected something intimate; a tactility and a close regard for small details that bordered on the sentimental. In this, photographs like Print 13.24—the photograph of Crawford's boots on the soil—felt far more

[3] Barber notes a similar misconception surrounding the Crawford collection held by Historic England (2015:34).
[4] See Chapter Four for an exploration of the archive's aerial photographs.

evocative of the sensibility that seemed to underpin the archive's contents than the distanced overview promised by the aerial view. And so, the starting point for this enquiry into Crawford's photographic archive arises out of this tension between the aerial legacy which Crawford holds in the present and the terrestrial nature of the photographs in his archive.

1.2 The Aerial Legacy of O.G.S. Crawford (1886-1957)

In *Men in Dark Times* (1970) the philosopher Hannah Arendt reflects on the lives of eleven men and women each of whom had risen to fame during the early twentieth century. In such turbulent times, Arendt wrote, it is "the function of the public realm to throw light on the affairs of men by providing a space of appearances in which they can show in word and deed…who they are" (1970:viii). Yet Arendt felt compelled to draw these eleven lives together because she had known each individual personally and found herself struggling to reconcile the public personas of each figure with her personal recollections of them. It was the case, she wrote, that "*das licht der öffentlichkeit verdunkkelt alles"; "*the light of the public obscures everything" (1970:ix).

This seems to be the lot of O.G.S. Crawford. If Crawford's name is mentioned in histories of archaeology, it is usually in the context of his role as the driving force behind the application of aerial photography to archaeology (e.g., Deuel 1969; St Joseph 1981; Riley 1987; MacGregor 2000; Bowden 2001; Jones 2005; Hauser 2007, 2008; Rączkowski and Drzewiecki 2008; Bohrer 2011; Barber 2011, 2015, 2016; Saint Amour 2011; Aldred 2019).[5] In these histories Crawford is hailed as the only man with the "vision to grasp the real importance" of air-photographs for archaeology (Deuel 1969:17). He is "the great pioneer and populariser" of aerial survey as an archaeological method (Bohrer 2011:85). Out of a career of publications that span almost half a century and cover a range of topics from field archaeology to Sudanese history, it is *Wessex from the Air* (Crawford and Keiller 1928)—a weighty tome of aerial photographs showing archaeological sites in the southern English landscape—that is the most regularly celebrated of Crawford's works (Bradford 1957:vii; Deuel 1969:xiv; Riley 1996:7; Cosgrove and Fox 2010:41; Bohrer 2011:86; cf. Barber 2015:33). Even Crawford admitted that *Wessex from the Air* was "generally regarded as my best achievement" (1955:172). The status which *Wessex in the Air* holds in the minds of many contemporary archaeologists is evidenced in an article by MacGregor (2000) which speaks of the preservation of a flight log and mapping board from the project as an archaeological "relic". It is not just that Crawford's legacy is subsumed by the aerial, but so too Barber argues the history of the aerial is subsumed by Crawford: "Aerial archaeology's origin myth, particularly in the English-speaking world, tends to centre almost exclusively on Crawford" (Barber 2015:32).

[5] This is not an exhaustive list but merely represents a sample range of writing on Crawford's aerial work.

Outside his aerial legacy, Crawford's life and work have received comparatively little scholarly attention. Bowden (2001) has examined the influence of geography on Crawford's brand of archaeology and his influence in return on the field of landscape studies as the first Archaeology Officer of the Ordnance Survey. Hauser (2008)—whom I discuss in more detail shortly—has highlighted Crawford's lifelong socialism. Others have probed his early relationship with anthropology before the First World War (Van Tilberg 2002; Wickstead 2019), his founding of the journal *Antiquity* in 1927 (Hawkes 1951; Stoddart and Malone 2002; Darvill 2002), the role he played in the professionalisation of archaeology in the inter-war period (Stout 2008) and have explored his dalliances with the occult and cultic (Barber 2016; Wickstead 2017, 2019). Though each of the studies above touch upon Crawford's photography and archives to one extent or another, they are at heart studies of the man not the archive. This thesis with its unapologetic focus on the photographic archive—and in particular those terrestrial aspects of the archive that have been previously overlooked—aims to address this gap. Moreover, in taking the contents of the photographic archive as a starting point I demonstrate that the view from the ground was far more central to Crawford's photographic practice and archaeological work than has previously been acknowledged. Inverting Crawford's legacy is a challenging task; it requires uprooting not only deeply held assumptions about Crawford but also about the nature of archaeological photography and archives, and the way in which archaeology has typically celebrated its own history. In the following sections I set out some of the barriers to reframing Crawford's photographic legacy, and then offer some methodological and theoretical approaches to moving past these barriers.

The emphasis on Crawford's aerial discoveries and 'pioneering' influence may be partially understood in the context of the way archaeology as a discipline writes its own history. A key part of the process of increasing professionalisation of archaeology in the nineteenth and the twentieth centuries was for archaeology "to construct for itself a history" (Schlanger 2002:128; Moro-Abadía 2006, 2009). Histories of archaeology took an 'internalist' approach; divorcing the theories and methods of archaeology from a consideration of the social and political context in which they arose (Moro-Abadía 2006, 2009; Prtak 2019). In the early twentieth century these "internalist" histories tended towards heavily romanticised, almost hagiographic, accounts of the lives of individual archaeologists or the discovery of spectacular sites giving rise to "the image of the archaeologist as a sort of Indiana Jones searching for treasures in ruined places" (Moro-Abadía 2006:9; cf. Trigger 2006; Conkey and Gero 1991; Stoddart and Malone 2002; Holtorf 2007; Schlanger and Nordblack 2008; Olsen et al. 2012; Thornton 2018; Fitzpatrick 2020).[6] Moreover the majority of histories of the

[6] See Ceram (1954) as an example of this twentieth century approach.

discipline were, and still are, produced by archaeologists themselves; often in the form of biographies and autobiographies which emphasise personal 'genealogical' links to the previous generation (Moro-Abadía 2006; Brusius 2017; Prtak 2019). These genealogical links act not only to establish a 'canon' of archaeological 'Founding Fathers' but are used to substantiate the reputation of archaeologists—and indeed archaeology—by association in the present, leading to resistance when legacies are reinvestigated or reframed (cf. Brusius 2017; Thornton 2018).[7] Even during his own lifetime Crawford held "an almost mythical status among British archaeologists as the uncompromising—if eccentric—progenitor of them all" (Hauser 2008:257). Crawford has been referred to as an "Archaeological Godfather" by Stuart Piggott, while Grahame Clark called him an "Uncle to British Archaeology" (Stout 2008:21; cf. Wheeler 1958).

Thornton has demonstrated that these so-called 'Founding Fathers' of archaeology attained the status they currently enjoy because they actively cultivated their own legacies through their literary output; a process she terms "scripting spadework" (2018:3). Crawford was certainly not averse to scripting both his own legacy and that of archaeology. Stoddart and Malone (2002), Hauser (2008) and Barber (2015) each note Crawford's reluctance to record anything personal or political in his autobiography *Said and Done* (1955), an editorial decision that leaves the reader with a sense of Crawford as something more akin to a mythological figure from the history of archaeology than a flawed human. Likewise, as I explore in Chapter Three, he was keen to establish connections between himself and the men whose legacies he saw himself as inheriting like Flinders Petrie (1853-1942), George Andrew Reisner (1867-1942), General Augustus Henry Lane Fox Pitt Rivers (1827-1900), and Edward Burnett Tylor (1832-1917) (Crawford 1953:25; cf. Hauser 2008:71).[8]

However, Crawford's efforts to establish his own legacy and genealogical links to the previous generation of archaeologists was not simply a matter of "scripting spadework" but crucially extended to his photographic practice and the active management of his archival collection. To give just a few pertinent examples; in 1952 Crawford bequeathed the bulk of his written papers to the Bodleian Library along with a parcel of letters which he instructed the Bodleian to keep under seal until the year 2000 (Crawford 1955:30,41). These letters were prefaced with a poem composed by Crawford, warning the reader of the future hoping to understand his legacy to "Eschew that search

[7] See Milam and Nye (2015) and Ingold (2016) on academic genealogies.

[8] Though it must be noted that Crawford slotted himself into this lineage with a tinge of petulance; "At the time when they rode abroad there was far more to be seen than there was when I began to do the same on foot" (1953:25). Crawford's interest in the genealogy of archaeology was a lifelong obsession which he first explored in a paper read at a meeting of the Oxford University Anthropological Society in 1910 (See footnote 1, Crawford 1953:22), and subsequently returned to in his key publications *Man and His Past* (1921) and *Archaeology in the Field* (1953).

within the paper mound…and look rather at what he wrote in many a book" (Unsorted Collection MS Crawford; Hauser 2008: xv). Before donating the papers, Crawford sifted through them purging some documents while adding comments on the work of his younger self on others; "This is a terrible collection of rubbish written about 1910. I have refrained from destroying it with great difficulty" (MS Crawford 95.1). By far the most striking case of self-curation is the instruction found in Crawford's will exhorting his executors to "destroy the old letters and books which are contained in parcels in the tin trunk of my sitting room by burning without opening them" (Crawford 1956). Equally tellingly Crawford regularly labelled himself in photographs marking a cross over his head, or using arrows to pick himself out from a crowd (Figure 1.10).[12] On this particular print the annotation refers to an incident recalled by Mortimer Wheeler, in which Crawford scandalised the Cambrian Archaeological Association by receiving them whilst wearing shorts. Wheeler was to reminisce "my heart warmed to that unmentionable apostate" (1958:3). Neither annotation is for Crawford's benefit, but are done with a future viewer in mind, one who might not recognise him or the significance of his attire without assistance. Elsewhere it is clear that Crawford was cynically aware that he could construct something of a personal brand through the careful manipulation of his photographic presence; in a series of letters in which Crawford deliberated over potential frontispieces for *Said and Done* he finally settled on an image which demonstrated two recognisable aspects of his public persona; his fondness for cats and penchant for bicycling (MS Crawford 74.175).

Crawford's attempts to sculpt his legacy through the management of his archive is one of the dominant themes of this thesis and presents a crucial historiographic problem; in stripping out personal details from his autobiography and written papers, the vision of Crawford which appears upon immediate contact with the archive is a version curated by the man himself. This has had significant implications for previous readings of Crawford's photographic archive. The most in-depth studies of Crawford written to-date are by the art historian Kitty Hauser. The first, *Shadowsites: Photography, Archaeology and the British Landscape 1927-1955* (2007) developed out of Hauser's (2003) doctoral research into the influence of Crawford's journal *Antiquity* on the artistic outputs of the Neo-Romantic movement. The second, *Bloody Old Britain* (2008), named after an unpublished manuscript of Crawford's, is a biographical study. Common to both is the emphasis which Hauser places upon Crawford's legacy as a pioneer of aerial archaeology.[13] It was the lure of Crawford's

[12] An inability or refusal to follow dress codes seems to have formed quite a central part of Crawford's self-presentation as a rebellious anti-authority figure, an attitude which he happily emphasised in his auto-biography (1955:306).

[13] It is notable that the other scholar who has written most intensively on Crawford is Martyn Barber who also has extensive ties to aerial photography through his role as a senior researcher for Historic England's Aerial Investigation and Mapping team. However, Barber demonstrates a far more critical awareness of the effects of Crawford's aerial legacy.

aerial legacy which initially drew Hauser to research Crawford's photographic archive (Hauser 2008:ix).[14] The archive surprised her; the loose photographic prints were often arranged in little semblance of order and were "hurriedly replaced in…box files"; individual photographs appeared marked and creased, "scarred by history", "disassembled" and in a state of "disarray" (Hauser 2008:x-xiv). Yet Hauser thought she saw an underlying pattern to the chaos; it was simply a matter of finding the right perspective. And so, much like the way that Crawford's famous aerial work revealed that the jumbled remains of the past in the landscape might become legible when viewed from above, in Hauser's work the metaphor of the aerial perspective became the lens through which Hauser began to make sense of Crawford's photographic archive. The opening lines of Hauser's description of Crawford's photographic archive read "Looking at these images gave me a strange sense of vertigo. It was as if I were looking at the world they depicted from a great and inhuman distance" (2008: ix).[15]



Figure 1.10 *The 'unmentionable apostate'. Print 39.12.*

[14] "I had come here to see if there were any aerial photographs among the archive amassed by O.G.S. Crawford" (Hauser 2008: ix).
[15] Deuel employs a similar metaphorical device, promising readers a "birds-eye view" in his summary of Crawford's aerial work (1969:34).

1.3 Archaeology, Photography, Absence and the Aerial View

1.3.1 Temporality, Absence and the Aerial View

Though Crawford's aerial legacy provides the immediate context for Hauser's framing of the archive, her comments also need to be contextualised within similarly deep-seated assumptions about the nature and purpose of archaeological photography. Hauser is not alone in using the aerial view as a cipher to speak about archaeological photography. The art historian Frederick Bohrer writes; "if there is any form of photography today particularly tied to archaeology, it is one that liberates sites from questions of their appearance in human scale" (2011:85). What is it about the distance of the aerial view that Hauser and Bohrer feel is so emblematic of archaeology? Common to both Bohrer and Hauser is the suggestion that archaeological photography is rooted in the attempt to represent absence. Bohrer writes "archaeological photography pairs the technology of picturing absence with the science of deciphering absence" (2011:8). Likewise, Hauser writes; "photographs of archaeological sites—by definition, since they depict remains—always get there too late, always represent an absence" (2007:89). Absence here is couched in temporal terms, and the relationship between archaeology, photography and time requires careful unpicking.

The kind of time which is most commonly and closely associated with archaeology is that of the long term or the *longue durée*; "a long period of chronological time" (Tilley 2017:9; cf. Malafouris, Gosden and Bogaard 2021:9). This single linear trajectory can be divided into smaller chronological units; hours, days, months, years and so on (Lucas 2005:10; A. Thomas 2019: 120). The emphasis within archaeology on the long-term stems from the nature of the archaeological record itself and what Lucas calls its "coarse temporal resolution" (Lucas 2010a:351). The temporal scales on which archaeology most commonly works are far beyond those perceived and experienced in what Holdaway and Wandsnider describe as "human time" (2008:2). Common dating techniques in archaeology, such as radiocarbon dating regularly give ranges of around + or – 30 years, a timespan that can easily exceed a human lifespan.[19] Archaeologists are far more accustomed to speaking in terms of "decades, centuries or thousands of centuries" than they are to speak of seconds, minutes, hours, days months or individual years (Lucas 2010a:351).

For Hauser and Bohrer, absence is—in part—the vast gulf of time which separates archaeologists in the present from the past which they study, moreover this temporal distance is combined with a

[19] Many thanks to Professor Shadreck Chirikure for prompting me to think about the nature of archaeological time over a chance encounter in the kitchen at the Institute of Archaeology.

heightened awareness of the partiality—the coarseness—of the archaeological record.[20] Hauser writes "What is seen in the photograph of a ruin is understood to be the remains of something which is not pictured, and can no longer be photographed" (Hauser 2007:238). Consequently, Bohrer writes, "Looking at things archaeologically is looking for absence as much as presence, for traces of what is no longer, which must be inferred to be comprehensible" (2011:7, 18).[21] This sense of absence is accompanied by the premise that archaeological photography is a mournful undertaking; "the archaeological photograph is always somehow elegiac, inhabited by a consciousness of loss" (Bohrer 2011:18). In these accounts of archaeological photography, the spatial distance between the camera and the ground in the aerial view becomes a cipher for the temporal distance between the archaeologist and the past, the overview of the landscape promised by the aerial view mirroring the long-view of archaeological time (cf. J. Thomas 1993:25, 2004:7; Wickstead and Barber 2012).

In contrast to the long-view of time associated with archaeology, photography has traditionally been written about in overwhelmingly static ways as possessing—to adapt Lucas's phrase—an exceptionally fine temporal grain. This is most commonly expressed in the suggestion that a photograph freezes or captures a split-second in time; as for example Roland Barthes' argument that "the Photograph immobilizes a rapid scene in its decisive instant" (2000:32-33) or Hauser's insistence that "Photography…is the image-making technology which specialises in the freezing of time" (2007:58; cf. Hamilakis, Anagnostopoulos and Ifantidis 2009:285; Hamilakis and Ifantidis 2015:138; Carabott, Hamilakis, and Papargyriou 2015:10). From the moment at which the photograph is taken, it is assumed that everything captured by the camera is temporally fixed; as Bohrer writes "Everything in a photograph is always from the past" (2011:7). Hauser describes this as a temporal flattening: the photograph "lacks in temporal depth", but makes up for this by capturing an abundance of surface details of the present moment from which it is snatched (2007:58).[24] The temporal work of photography as inherently distancing and objectifying is most evocatively described by Carabott, Hamilakis and Papargyriou as "[extracting] a material fragment from the 'flesh' of the world" (2015:10; cf. D. Hicks 2019:24). In these approaches photographs become anachronistic; like "fragments received from the past in the present" (D. Hicks 2019:28).[26] And so

[20]See also Andrews, Barrett and Lewis; "Archaeology routinely treats its evidence as a residue which stands as a testimony to the absence of humanity" (2000:529; cf. Lucas 2012:16).
[21] Cf. Hauser; "A lack must always lie at the heart of archaeological photography" (2007:86).
[24] See E. Edwards (2015) on photographic abundance.
[26] This impression is only enhanced by the way in which photographs are preserved in archives and museums; framed as especially vulnerable to damage from the oils secreted by human skin, liable to fade if left under direct light, and requiring temperature and climate-controlled storage to prevent any conspicuous change to their physical form which might betray the passage of time (Classen and Howes 2006; Edwards, Gosden and Phillips 2006; Ouzman 2006; McFadyen and Hicks 2019).

archaeological photography is framed as doubly temporally distanced; the archaeologist separated from the past which they study and the archaeological photograph snatched from the flow of time.

1.3.2 Archives, Photography, Absence and the Aerial View

Hauser and Bohrer's characterisation of archaeological photography as premised on absence is also a comment on the knowledge-making practices of archaeology as a discipline and the ways in which archaeology has historically utilised photography to achieve its scientific methods and objectives. The nineteenth century saw the invention of both photography and the beginning of a process that would see archaeology emerge out of the shadows of geology, palaeontology, anthropology and history as a distinct discipline in its own right (Moro-Abadía 2006; Bohrer 2011; Shanks 2016; Brusius 2016). From almost the moment of its invention archaeologists incorporated photography into their regimes of visual practice (Olsen et al. 2012:50; Hamilakis and Ifantidis 2015:133; Riggs 2020:826).[28] Throughout the nineteenth and into the early twentieth century archaeology was predominately the pastime of wealthy amateurs who restricted their study to the subject of Classical Antiquity and expressed a general aversion to "interpreting material remains in the absence of documentary sources" (Lucas 2010a:342-344; cf. Trigger 1989:48; Olsen et al.2012:39). The inter-war period in Britain saw a shift in archaeology's disciplinary identity, characterised by a growing confidence in interpreting the material remains of the past in the absence of written records and an emphasis on fieldwork and excavation as the primary tools for generating archaeological knowledge (Olsen et al. 2012:39; cf. Stoddart and Malone 2002:917).[30] Crawford was one of the most passionate voices in support of this shift. In the opening lines of the first issue of his journal *Antiquity* Crawford set out his vision for this new and radical brand of 'Dirt Archaeology': "Archaeology is a branch of science which achieves its results by means of excavation, fieldwork and comparative studies: it is founded upon the observation and record of facts…Knowledge thus acquired is alive, for it is derived at first hand from things, not merely compiled from books" (Crawford 1927:1; cf. Stout 2008:19).[31]

"Excavation"—so the saying goes—"is destruction", it is the "unrepeatable experiment" (Wheeler 1954:15; Barker 1993:1). This saying arises out of the recognition that the earth "[preserves] the memory of its own past through stratigraphy" (Lucas 2010a:350; cf. Barker 1993:1; Olivier 2011: 99–

new invention would enable a single person to document "millions of hieroglyphics…as they are in reality" a feat that would previously have taken teams of illustrators' years to accomplish (Arago [1839] 1980:17; cf. Bohrer 2011:27-28). See Dorrell 1994; Olsen et.al. 2012 and Morgan 2016 on the entwined histories of archaeology and photography.

[30] Thomas has argued that this transition must be understood in the context of the broader context of the aims and methods of scientific modernity with its emphasis on the representation of "reality 'as it really was'" (Thomas 2008:2; cf. Thomas 2004).

[31] Stout (2008) coins the phrase 'Dirt Archaeology' and has demonstrated that *Antiquity* was a key medium in ensuring this disciplinary shift, but is notably silent on the role that photography played in the process.

100; Baird and McFadyen 2014:15; Hitchcock 2020:1). The archaeological archive, Baird and McFadyen argue, is simultaneously "more immediate" than other forms of archive, in that it holds artefacts and ecofacts obtained directly from excavation, yet at the same time it is "more removed…holding records of excavation but never—impossibly—excavation itself" (2014:15). The destruction of the earth during excavation has led to disciplinary anxiety surrounding the production of archaeological archives and has resulted in the "philosophical dogma…that the archive should be a complete and objective record of an excavation that must be then kept forever" as a proxy for the archaeological record (Swain 2012:252-253; Merriman and Swain 1999; Andrews, Barrett and Lewis 2000; Beisaw 2010; Baird and McFadyen 2014; Hitchcock 2020).

Hodder has argued that as a corollary of this emphasis on assembling a total record, archaeologists were trained to think of data collection in the field as an objective process of assembling 'facts' entirely separate from the "subjectivity and speculation" that took place in post-excavation interpretation—"as if description was mere data that could be objectively handed out to people to interpret subjectively" (Hodder 1997:692-694; cf. M. Carver 1989:669; Barker 1993:147). Photography became an entrenched and highly choreographed component of this 'fact' gathering mission, as well as a key tool in articulating and disseminating the newly adopted scientific principles of archaeology (Guha 2003, 2005, 2010; Baird 2011, 2017; Carter 2015). Photography was not used to simply record or document but to actively construct a vision of the discipline's practice as objectively scientific. Archaeological photographers borrowed visual conventions from the sciences; favouring a crisp sharp focus with maximal depth of field, naturalistic perspective, the employment of props such as scales and measuring rods, and emphasised the intensive preparation of sites—a practice known as 'cleaning'— to remove details like footprints and scattered tools. Clear conventions were established for representing the human figure.[33] This staged vision of scientific practice implicitly aimed to decentre the subjective human element from the excavation record. Guha (2003, 2005) and Baird (2017) have argued that the adoption of this 'visual grammar' in archaeological photography—in concert with the production of detailed maps, plans and site diaries and written records—were the means by which an excavator could demonstrate the scientific rigour behind their fieldwork, as well as functioning didactically to encourage replication of these scientific methods of excavation.

However, as archaeology adopted visual conventions and archival methods to make itself more visible as a scientific practice, those aspects of archaeology that involved the personal, subjective

[33] See Daston and Galison (2007) and Wickstead and Barber (2012) on the production of scientific objectivity. I explore these visual conventions in greater detail in Chapter Two and Three.

and affective were seemingly obscured by those same mechanisms (cf. Guha 2002; Morgan 2016). The combination of the strictly regimented 'visual grammar' of archaeology with the long-standing association between the indexical trace of the camera and the production of mechanical objectivity has led to Bohrer's argument that archaeological photography strives to become "cold-bloodedly objective: the photographer's human presence, and artists' tendency to subjectivity held in check by his mechanical apparatus" (Bohrer 2011:7; cf. Hauser 2008:153).[35] The apparent erasure of human subjectivity from the archives of archaeology has also contributed to Hauser and Bohrer's framing of archaeological photography as detached from "human scale" and premised around the absence of the archaeologist (Bohrer 2011:85). In this line of thinking "The distance between aircraft and earth forms an epistemological metaphor in which the scientist stands apart from the object of knowledge, viewing it remotely through instrumentation" (Wickstead and Barber 2012:71).[36] So too has Crawford's photographic project with its almost compulsive documentation of even the smallest details been construed as an extension of the totalising premise of archaeological scientific documentation. "All of the photographs seemed aerial"—Hauser wrote— "they all seemed confident that the world was knowable in its entirety" (Hauser 2008: xiv).

1.3.3 Archaeology, the Aerial and Modernity

The above accounts of archaeological photography and the associated framing of Crawford's photographic archive arose out of a very particular moment in the history of archaeology. Between the inter-war years and the post-processual turn writing on archaeological photography was limited to the production of instructional manuals or notes in training guides (e.g., Cookson 1954; Dorrell 1989; Collis 2001). Though these notes did on occasion call into question the objectivity of the photograph, this scepticism was framed in terms of the technological limitations of the camera to capture what archaeologists could see before them, rather than taking the form of questions about the epistemological nature of the medium and the purposes to which archaeologists put the camera (Morgan 2016).

Consequently, the earliest studies of the visual practices of archaeology expressed frustration and surprise at the extent to which photography appeared almost invisible in critical reflections on the discipline (e.g., Molyneaux 1997; Shepherd 2003; Guha 2003, 2005; Smiles and Moser 2005; Perry 2013). The opening lines of Shanks' study of archaeology and photography in the landmark volume

[35] Daston and Galison define mechanical objectivity as "the insistent drive to repress the wilful intervention of the artist-author, and to put in its stead a set of procedures that would…move nature to the page through a strict protocol, if not automatically" (2010:121).

[36] Note that Wickstead and Barber are not discussing archaeological photography but the framing of the aerial view more broadly. I follow Saint Amour (2011) and Wickstead and Barber (2012) in challenging the framing of the aerial view as distanced and objective in Chapter Four.

The Cultural Life of Images argued: "Photographs are often taken for granted in archaeology. They are treated as technical aids…as transparent windows to what they are meant to represent" (1997:73). Archaeologists looked *through* photographs to see the archaeological past or the conditions of an excavation rather than *at* photographs as objects in their own right (Baird 2011, 2017, 2019). Archaeological photographs were circulated and consumed as repositories of factual information, with little consideration of the role of the archive or archaeologist in performing and producing this knowledge (Guha 2005). Nor had the photographs and illustrations of archaeology attracted scholarly attention from art historians or from the field of the history of science and technology (Smiles and Moser 2005). Hauser registered her surprise that the 'poetics' of archaeological photography had been so overlooked given the existence of a number of studies exploring the poetics of archaeology's literary output (2007:25). Schlanger and Nordblach suggested that this oversight was due to the extent to which photography is ingrained in archaeological practice; as "integral and indeed expected components of archaeological discourse" archaeological photographs and archives are "seldom scrutinised with the full attention they deserve" (2008:4).

As scholars began to note the absence of critical reflection on the role of the visual in archaeology, the post-processual turn of the 1980s and 1990s sought to interrogate the broader knowledge making practices of archaeology. Archaeologists challenged the notion of an "objective and monolithic past that awaits revelation by the informed expert" arguing instead that the past is socially constructed in the present (Merriman 2000:618; cf. Shanks 1992; Bender et.al. 1997; Schlanger 2004). Hodder's work on excavation demonstrated that interpretation is not a distinct process reserved for post-excavation but rather an integral part of the excavation process taking place at "the trowel's edge" (1997:693; 1987, 1999; cf. Lucas 2001a). This new recognition of the role played by the subjective assessments of individual archaeologists in the field saw calls to integrate ethnographic observation into archaeological projects to foreground and reflexively respond to the processes of knowledge production (Gero 1996; Hodder 2000; Hamilton 2000; Edgeworth 2006; Hamilakis and Anagnostopoulos 2009). Crucially, the phenomenological turn critiqued how archaeologists positioned themselves relative to the sites they studied; arguing that archaeologists were guilty of either fixating on the specifics of a site at the expense of considering the wider landscape or relying on visualising techniques like the distribution map or aerial view which reduced landscapes to abstracted representations (Tilley 1994:3).[39] The view from above was decried as adopting a perspective which was completely distanced from the scale of human

[39] Tilley argued that the contemporary archaeologist could be compared to "a mole whose head hardly rises above the site itself to consider wider sets of relationships between it and the environment in which it is situated or, alternatively, surveys everything on the distribution map as if from an aircraft" (1994:3).

experience, and intimately linked to the politics of control and domination (J.Thomas 1993, 2004, 2008; Tilley 1994, 2017; Weems 2012).[40]

The recognition of the situated nature of archaeological knowledge led to a swathe of critiques which located the origins of both photography and archaeology in the epistemological and ontological positivism of modernity (e.g., J.Thomas 1993, 2004, 2008; Tilley 1994; Merriman 2000; Hamilakis and Infantidis 2009; Shanks and Svabo 2013; Carabott, Hamilakis, and Papargyriou 2015). These studies within archaeology emerged in dialogue with a series of broader theoretical turns which turned their gaze upon the power dynamics underpinning the epistemological politics of western scientific modernity. Postcolonial studies and the 'Crisis of Representation' in anthropology exposed the way in which European modes of knowledge constructed and represented 'the Other' and used visual and archival practices to justify white supremacy and enact policies of colonial military expansion (Said 1978; Anderson 1983; Fabian 1983; Clifford and Marcus 1986; E. Edwards 1992; Ryan 1997; Stoler 2002). The sensory turn exposed the Cartesian dualism and ocularcentrism at the heart of the Western sensory hierarchy and denounced the exclusion of the body from the production of knowledge (Howes 1991; Classen 1993, 2005; Hamilakis et al., 2002; Edwards, Gosden and Phillips 2006; Hamilakis and Ifantidis 2009).[43] While broader discourse in photography and visual studies began to deconstruct the gendered politics of the male gaze (Mulvey 1975; Berger 2008) and the relationship between the mechanical production of the camera and the economics of capitalism (Carabott, Hamilakis, and Papargyriou 2015:9; cf. Tagg 1993; Benjamin 2008). Into this mix the musings of Roland Barthes (2000) on the links between photography, time and death were translated into English for the first time.[44] Out of the soul-searching of these disciplinary turns the visual practices of archaeology and the aerial view became "tainted by surveillance and voyeurism…irrevocably gendered and tied to militaristic and colonial undertakings" (Gillings et al. 2019:2; cf. Ouzman 2006; Amad 2012; Wickstead and Barber 2012; González Ruibal 2013; McFadyen and Hicks 2019; D. Hicks 2019).[45]

These readings of archaeological photography can be understood as representative of a moment analogous to the early days of anthropology's reckoning with similar legacies in its own photographic

[40] Even practitioners of aerial archaeology have historically acknowledged the isolation of the aerial perspective from mainstream archaeological practice; "By nature and purpose—and almost by definition—archaeology belongs to the ground" (Deuel 1969:1).

[43] The role of the camera as mechanically mediating physical interactions between photographer and subject has subsequently extended into the suggestion that photography constitutes a socially isolating and extractive practice (Ingold 2011; cf. Grimshaw and Ravetz 2015).

[44] Many thanks to the attendees of the Pitt Rivers Museum Visual, Material and Museum Anthropology Seminar Series for pushing me to reflect on the significance of this date of translation.

[45] As I discuss in Chapter Three it is notable that archaeology has been more reticent than many other disciplines to grapple with its own links to colonialism c.f. González Ruibal (2013).

practice; which displayed an "uncomfortable tendency to dichotomize and over-determine the dynamics of power relations and their visualizing rhetoric, sometimes to almost nihilist effect" (Edwards and Morton 2016:22; cf. Morton 2009:253; E. Edwards 2014b:173; E. Edwards 2015).[46] Studies exposed the mechanisms by which archaeologists in the early twentieth century attempted to construct an aura of scientific objectivity, identifying the underlying positivist logic of recording practices—a step akin to reading 'along' the grain of the archive (cf. Stoler 2002, 2010)— without seeking to question whether these practices were ever truly successful. This poses particular challenges for working with Crawford's photographic archive. Crawford, his archive and archaeological photography suffer from a conjoined problem of perspective. Crawford's aerial legacy has overshadowed all previous attempts to write of his photographic practice, leaving vast swathes of his terrestrial work overlooked. At the same time the distance of the aerial view has been used as a metaphor for broader imbrication of archaeology, photography and the epistemology of scientific modernity. And so, Crawford's photographic archive is doubly bound in webs of the aerial. Yet, while the aerial metaphor is intended to critique the power dynamics of archaeology, it often has the opposite effect—producing a vision of Crawford's photographic practice (and archaeological photography more broadly) which erases the situated presence of the individual behind the camera, reducing the archaeological photographer to a robotic technician—thus isolating photography from discussions of the lived and embodied practices and social networks of archaeological knowledge production.[47] The challenge lies in finding ways of writing and thinking about archaeological photography that recognises the personal and subjective aspects of archaeological practice while still holding the power dynamics of the discipline to account.

Moreover, it is notable that many of the positivist conventions and convictions of the inter-war years still persist in the contemporary production of archaeological archives, leading McFadyen et al. to raise the challenge: "Why are we so professional about creating an archaeology devoid of us?" (McFadyen et al. 1997, quoted by Lucas 2001a:13; cf. Baird 2019:77; Merriman 2000:302; Andrews, Barrett and Lewis 2000:526; Bradley 2003:164-165; Riggs 2019:5,46).[48] Archaeological photographs are trapped between top-down theoretical perspectives which over determine their links to the power dynamics of Western modernity and bottom-up practical approaches which render them passive and invisible. There is a pressing need for studies of archaeological photography that read both along and across the grain of the archive (cf. Stoler 2002, 2010); understanding the

[46] Though as Riggs notes even the most over-zealous analysis of the totalising gaze of modernity can act as a significant reminder to remain alive to the power dynamics of the discipline (2019:48).
[47] As I discuss in Chapter Four, even aerial archaeology is entangled in personal and subjective sensory regimes. There is no such thing as a disembodied or objectively detached archaeologist.
[48] Cf. Morgan (2016) on the rising number of representations of excavators in 21st century archives.

mechanisms of the 'visual grammar' of archaeological photography while also seeking out the instances where the construction of scientific objectivity crumbles, the moments where the human presence both in front and behind the camera may be felt, and an exploration of how this situated human presence fundamentally alters the production of the photographs and archives of archaeology.

1.4 Life in Photographs: The Archaeology of Archives

My purpose in this thesis is to present an alternative vision of Crawford's photographic archive and by extension an alternative way of writing about archaeological photography and archives; one that is premised on recognising the distinct presence of Crawford as a photographer and how this presence might be traced within the archive, rather than speaking of the absence of archaeologists from the photographs and archives they create. Moreover, I begin this project not with Crawford's aerial legacy or the metaphor of distanced aerial view, but the photographic evidence contained within his archive and the tactile intimacy of feet pressed into soil. What does such a ground-up approach entail?

The anthropologist Elizabeth Edwards (2013) has observed that the majority of studies of archaeological photography revolve around the examination of single, spectacular or otherwise exceptional images.[49] To Edwards' (2013) observation I would add that existing literature on archaeological photography is often dominated by discussion of excavation. Writing an alternative account of archaeological photography requires looking beyond the kinds of images that are usually referenced when discussing archaeological photography and looking at photographic collections in radically new ways. Throughout this thesis I embrace a wide range of archaeological photography; Chapter Two explores Crawford's photographic practice during the excavations at Sutton Hoo in 1939, Chapter Three turns to the uses which Crawford put his camera while conducting expeditionary survey work in Sudan in the 1950s, while Chapter Four spans a range of Crawford's photographic activity from the air and the ground and his life-long pursuit of field archaeology. In each of these chapters double exposures and blurred or poorly composed images are given equal weight to those examples of Crawford's photography which showcase his most aesthetically pleasing or technically competent work. But this showcasing of a very different range of archaeological photography must be coupled with new theoretical and methodological approaches to archaeological archives.

[49] See also Shanks' suggestion that "the picturesque, the 'important', and the beautiful are the concepts which guide conventional archaeological photography" (1997:76).

Beyond the existence of a small handful of studies, archaeologists still routinely perceive archives as constituting 'static repositories' of 'facts' (Baird and McFadyen 2014). This has been coupled with a distinct disinterest or discomfort surrounding the use of archives; in part due to the fact that until the mid-twentieth century the work of organising and maintaining archaeological archives was dismissed as not constituting true 'archaeological' labour (cf. Riggs 2019:42).[50] Arguments in favour of turning to archaeological archives often lean heavily on the suggestion that sites which are inaccessible on account of having been destroyed, damaged or heavily altered or those located in politically unstable regions may be at least partially recovered or accessed through archival records (e.g., Miranda and Raja 2021). Other turns to the archive are premised on the aim of extracting new information from 'old data' (e.g., Beisaw 2010:467).[51] Revisiting archives in the hope of reinterpreting heritage data can develop into critical reflection on historic fieldwork and archival practices, as for example in Martin Carver's (2011, 2017) extensive analysis of excavation at Sutton Hoo. Though it is notable that many of these approaches explore the history of archaeological and archival practice as a means of better extracting data from archaeological archives, rather than demonstrating an interest in historiographic potential of archaeological archives as a topic of interest in its own right.

Despite this relatively unsophisticated perception of archaeological archives from within the discipline, Hitchcock makes the crucial observation that archaeologists turning to the archives frequently claim to be 'excavating the archive', though in reality these commentators make no attempt at applying the principles or methods of excavation to the archival encounter (2020:4).[52] Studies which turn to archaeological archives explicitly for the purpose of writing histories of the discipline frequently display a positivist outlook, treating archives as unproblematic raw sources with a level of "veridical" appeal which can be mined for information (e.g., Schlanger and Nordbladh

[50] Thornton has drawn attention to the consequent erasure of contributions of women to archaeology that this attitude entailed at the 'Collectors Curators and Cataloguers' conference held at the Ure Museum on 12 June 2019. A report on the use of archives published in 1998 demonstrated that 29% of archaeological archives held in the UK received zero enquires or consultation requests in the previous year (Swain 1998; cf. Swain 2012:360). This discomfort with archives can also be explained in part by the perception noted by Lucas that "The opposition between texts and things has been a fairly conventional way to describe the distinction between archaeological and historical sources for some time" (Lucas 2010a:346). While Wingfield (2017) argues that the antiquarian associations of 'collecting' has engendered the perception that collections research is 'Other' to archaeology. See Merriman and Swain (1999) and Andrews, Barrett and Lewis (2000) on pragmatic barriers to archival research. However, the reluctance to engage seriously with archaeological archives gives rise to the question of why such records are produced in the first place (Merriman and Swain 1999: cf. Schlanger on archives as "simultaneously the trash-basket and treasure trove" of archaeology 2002:130).

[51] E.g., The entire volume of Issue 24 of *Internet Archaeology* is dedicated to the re-use of legacy data.

[52] See Wallace (2004) and González Ruibal (2013) on the allure of the archaeological metaphor in western literature and philosophy.

2008:3; Kaeser 2008:18).[53] Even Hitchcock succumbs to this perspective arguing that the archive offers the ability to "peel back the sanitized film of the 'end products' of an excavation or other archaeological project – books, journal articles, television programmes or exhibitions, and view the unfiltered substrate beneath" (2020:2). This perception is only intensified in the case of photographic collections which already suffer from being routinely looked through as passive illustrations of the methods and practices of past excavators (Riggs 2019:44).[54]

In contrast, in recent years photographic theory has stressed the ways in which photographs can resist the authorial intentions of their creators. Scholars have pointed to the 'visual excess' or 'abundance' of photography; those serendipitous unintentional details captured by photographs which can be used to 'read' the photographic image in ways which run counter to its original purpose (Edwards and Morton 2009:6; E. Edwards 2015; Baird 2019; Riggs 2019). Similarly, the archival turn in the humanities and social sciences with its ethnographic reconceptualization of archives from 'sources' to 'subjects' of research has emphasised that archives do not store 'facts', rather they produce the material conditions for the formation of knowledge (Stoler 2002). The meanings that emerge from photographs and archives are directly related to their "material and presentational forms", and the physical contexts in which they are stored, accessed and encountered (E. Edwards 2002:67; Rose 2000; Edwards and Hart 2004; Baird 2011; Baird and McFadyen 2014; E. Edwards 2016b; Brusius and Singh 2017). These studies have emphasised the importance of reading both 'along' and 'across' the 'grain' of an archive; identifying the work that was expected of the collection as it formed, but also seeking out points of rupture where the archive resists this work and its epistemic mechanisms break down (Stoler 2002, 2010; Shepherd 2003; Baird and McFadyen 2014; Edwards and Morton 2015, 2016; Riggs 2017, 2019). These theoretical turns have led to a series of studies on archaeological photography and archives which temper an awareness of the epistemic politics at play in their production with the recognition that the meanings which arise out of such collections are as shifting and unstable as the archival collections themselves (Shepherd 2003; Guha 2003, 2005, 2010; Lucas 2010a, 2012; Thornton and Perry 2011; Baird 2011, 2017, 2019; Baird and McFadyen 2014; Morgan 2016; Brusius 2017; Riggs 2017, 2019, Prtak 2019, McFadyen and D. Hicks 2019).

[53] See Stoler (2002) on the contrast between "extractive" and "ethnographic" approaches to archives. Prtak (2019) makes the insightful distinction that those looking to write histories of archaeology gravitate towards the personal archives of individual archaeologists while those looking to reinterpret sites or data turn to excavation archives with little overlap between the two. This division of sources is reflective of the long-standing assumption that the personal does not permeate the professional work of archaeology.
[54] Though the relegation of photographs to passive illustration is not a problem unique to archaeology (cf. Edwards and Morton 2015).

Though this new stream of literature is both challenging and promising it must be noted that compared to the vast amounts of similar research in the field of visual anthropology, these studies remain a minority within archaeology. There is a distinct irony at play in the fact that archaeology has historically looked outside of itself to theoretical developments in the social sciences to respond to its own archival and photographic collections (Baird 2011:427; Baird and McFadyen 2014:20; Riggs 2019:46). Notably theories of materiality which have played a crucial role in the archival turn are far more commonly associated with anthropological theorists than with archaeologists (cf. González Ruibal 2013). This hesitancy to apply archaeological methods and theories to the archives not only hinders archival literacy within archaeology but represents a lost opportunity for the advancement of archival theory. Ouzman has previously argued that materiality and context are the two main theoretical and methodological tools which archaeology can offer the study of archives (2006:269). Archaeology is after all the 'discipline of things' (Olsen et al. 2012) and is thus uniquely qualified to offer perspectives on the materiality of archival collections having a long and established tradition of working with artefacts without associated written sources. Likewise, the longstanding emphasis on context in the archaeological analysis of material culture accords well with the now widely accepted recognition that photographic meaning arises from the specific situations in which photographs are encountered.

But so too is the long-term view favoured by archaeology useful in rejecting the idea that archaeological archives constitute static and unchanging stores of 'facts' (cf. Baird and McFadyen 2014). Though it is true that to the casual observer an archive stored within a museum or similar institution may well seem to be relatively stable in both form and content, archives are never truly static. As Hodder (2012) reminds us the vibrancy of the material world is evident on temporal scales that are otherwise hidden from human perception.[55] Recognising that archives are thus active sites in the ongoing construction of meaning Baird and McFadyen call for the development of an archaeology of archives which entails an "active engagement with the formation of archives" (2014:14). Key to Baird and McFadyen's provocation is the recognition that the meanings which arise from archival collections are directly related to the circumstances surrounding the creation and use of these records.

Building on Baird and McFadyen's (2014) work Hitchcock (2020) develops his own account of archival formation, returning to the established terminology of 'excavating the archive' yet stepping beyond the broader metaphor to outline the parallels between excavation sites and archives.

[55] Some of the changes to Crawford's archives have taken only as long as it takes for a hand to move pen to paper, while others have happened far more gradually, like the wear caused to the edges of a photograph as it is handled over the course of a century (cf. Hitchcock 2020).

Hitchcock notes that differing levels of 'curation' in archival collections can be used to speak of intentional or unintentional deposition; he argues that gaps in archival material mimic the variation in levels of preservation of archaeological evidence; he suggests that we might speak of stratigraphic layers and "vibrant material assemblages" within archives and makes the case that archives must be understood as the material traces of the past (2020:4-5). Though I am in profound agreement with each of these points, each of his observations requires further development. As an example, Hitchcock speaks of stratigraphies within the archive, yet in his case study does little to date relative depositional sequences of these layers within the archive, nor does he indicate how these temporal sequences might add to the understanding of the archives he studies. Recognising the existence of these parallels is not the same as using the methods and theory of archaeology to interrogate an archival collection.[56]

Throughout this thesis I explore my own archaeology of the formation of Crawford's archive; tracing the formation process from Crawford's activity as a photographer while in the field, to the presentation and arrangement of photographs and other material in his archive during his lifetime, to the subsequent re-arrangements of his archival material after his death.[57] As I do so I hold in mind Hallam and Ingold's appeal for a consideration of the "becoming of persons and the becoming of things" as "intertwined processes" (2014:xiii). I explore the ways in which Crawford's life, his photographic practice and the production of his archive were mutually entwined, and how the material reformulations of his archival collections after his death are directly related to perceptions of his legacy in the present. Building on Baird and McFadyen's (2014) observations on the relationship between the processes by which archaeological archives come-into-being and the visions of archaeological practice that emerge from the archives, by leaning in to the study of formation I probe the construction of scientific objectivity in Crawford's photographic archive and make the case that underneath the thin veneer of dispassionate documentation lies a deeply personal collection.

In the following sections I set out two distinctively archaeological approaches to investigate the archival formation process: a consideration of the temporality of archaeological photography and an assemblage approach to archives. As will shortly become clear, both are offered as theoretical and

[56] I do however hold a profound debt to Hitchcock for highlighting Fowler's (2013) work on assemblage which provided an essential springboard for my own thinking on this topic.

[57] There is very little material in Crawford's archive which discusses the development and printing of photographs, and so while these aspects of photography are a vital stage in archival formation, they play a minimal role in this thesis. Crawford worked with two professional printers; B. Matthews Photo Printers LTD for mundane and personal purposes (MS Crawford 1.29-32) and for high quality photographic prints he favoured Wilfred A. Ashby in Southampton (Letter from Crawford to Phillips. 4 August 1939. Correspondence file SH-PHOTOG_EXCAV I, 1939. British Museum).

methodological counters to the trend identified by Elizabeth Edwards (2013) of writing on archaeological photography which isolates individual images for analysis. Underlying each approach is the deeply held conviction that rather than speaking of 'absence' in the archaeological archive—as per Hauser and Bohrer—we should instead adopt the language of 'trace'. The archaeologist Gavin Lucas defines 'trace' as the "actual physical remnants of [an] event…stretched into the present" (2010a:350). In adopting the language of 'trace' I achieve several aims simultaneously. Firstly, while the concept of absence implies an irretrievable loss of the past and the dematerialisation of the archaeological record, Lucas' concept of trace offers a counterweight; the reminder that the very objects of archaeological study are those aspects of the past which survive into the present. A trace is not necessarily perfectly preserved, nor does it promise the total recovery of the event which formed it, but it does hold the hope that from the remnants which survive archaeology might recover something of the past. To transfer this logic to the archive, to speak of absence and specifically the absence of archaeologists from the records they create is gesture towards an impasse; the suggestion that nothing of their personal motivations or desires are recoverable from the documents they left behind. To speak of traces in the archive is to begin from the assumption that archaeologists leave some material imprint of themselves behind in the world as they practice their craft. This latter mindset lends itself particularly well to the notion of studying the formation of an archive; it holds the suggestion that an archive is not a static form but emerges out of a series of events, each of which leave behind tell-tale signs of activity that might be interrogated or parsed for meaning.

Secondly, the phrase 'absence' in conjunction with a discussion of archaeological archives strikes a jarring tone of forced neutrality. Archives are not neutral creations—either as sources or as physical spaces. Though absence has long been the favoured terminology to speak of the gaps or limitations of archival records, my concern is that such language carries with it the abeyance of responsibility. This is not to suggest that every event in the formation of archive is deliberate—as I discuss in Section 1.5 many of the key moments for Crawford's archives have been entirely accidental—rather it is to make the point that the 'absence' of the presence of archaeologists which Hauser and Bohrer describe arises out of prescribed disciplinary conventions for photography and recording. If personal and emotive details are not recorded by archaeologists, or if photographs which suggest that archaeology is anything other than a coolly objective science are not taken or archived, these are intentional choices about the kinds of visions of archaeology that are allowed to exist in the archives of the discipline. These are not absences but selected acts of erasure. And as I argue in Chapter Two, even these attempts at erasure leave behind their own traces in the archive.

Finally, the terminology of trace is deeply appropriate for a study of photography. Photographs are physical traces of events; produced when light bounces off a subject and onto chemically reactive film or plate (Morton 2018).[60] The indexical nature of the link between photographic object and the presence of the subject in front of the camera is most famously and emotively expressed in theorist Roland Barthes' (2000) description of the photograph of his dead mother. For Elizabeth Edwards it is precisely this quality that makes photographs such potent historiographic resources; photographs do not simply represent the past, or exist as physical traces of the past, but they hold within them the intangible "standpoint[s] and experience[s]"—the very presence—of past people (2022:71).

It is this understanding of photographs as traces of social presence that underlies the current methodological push towards turning to photographs to excavate and recover the 'hidden histories' of those whose experiences have been systematically erased from written forms of archival documentation.[61] These uses of archival photographs are usually premised on the technique of close-looking at details contained within individual images, and have been adopted with great success by Riggs (2017, 2019) and Baird (2019). Riggs argues that "through photographs we can access the affective and embodied experiences" of archaeological labour (2017:336), for "photographs…give us glimpses of personal interactions, physical contacts and haptic details that could not, or would not be attested to in any other medium" (2017:341). It is the inclusion of these unintentional details which makes archaeological photographs re-codable; "a photograph intended in the 1920s to be of an inscription might now be of an archaeological worker" (Baird 2019:88). Though these techniques of interrogating archival collections are becoming firmly established, they do not necessarily translate directly to recovering the presence of Crawford in the archive.[62] Archaeological photographers only rarely end up in front of the camera and within the frame of photographs themselves (Riggs 2017:362). Though it is true that there are instances where details like the creep of Crawford's feet into the bottom of a photographic print might point backwards towards the situated, fallible and very human presence behind the camera, recovering the traces of Crawford's presence requires looking beyond details within photographic images and turning to the formation of archival assemblages and to the temporality of archaeological photographs.

[60] Ironically, Hauser (2007) writes beautifully about the relationship between photography and trace as she describes Crawford's hunt for the lingering remains of the past in the landscape.

[61] See E. Edwards (2022).

[62] To clarify, these strategies of close-looking have been developed to recover the presence of those whose presence in the archives has been systematically erased as a result of racism, classism, homophobia and sexism. In no way am I trying to equate the search for the presence of Crawford in the archive or his experiences as a famous white male with the experiences of people from marginalised groups. Rather my point here is to acknowledge the history of this methodology and its usual applications.

1.4.1 The Archaeology of Archives: Temporality

Archaeological photography—Baird argues—has a problem with time (2019:76). The "coarse temporal resolution" with which archaeology is used to working (Lucas 2010a:351) is not well suited to the work of exploring photographic practice as it is enacted in "human time" (cf. Holdaway and Wandsnider 2008:2). On the other side of the temporal scale, references to photography as freezing or isolating moments in time generates an image of photographic practice as distanced or detached, rather than a dynamic, lively and socially engaged practice. Therefore, a key aspect of this thesis is developing archaeological approaches to photographic time that can help us understand Crawford's photographic practice as it was enacted in 'human time' but without resorting to the flattening of temporal depth evoked in descriptions of photography as freezing time. In doing so it is possible to invigorate accounts of Crawford's photographic practice. Key to this are the concepts of duration, return and multi-temporality.

Duration and its implications for archaeological photography has been introduced in the work of Baird (2011), McFadyen and Hicks (2019), D. Hicks (2019), Knight and McFadyen (2019) and A.Thomas (2019).[64] Knight and McFadyen draw on the work of philosopher Henri Bergson who spoke of an ongoing flow of time as the constant backdrop to the perception of individual moments in time (2019:55; cf. Bergson 1911:3). This conception of durational time in terms of "fluidity and extent or indivisibility" (Knight and McFadyen 2019:56) is not only a useful counterpoint to writing about photographic time as static and momentary, but accords well with the study of the formation of an archive as an ongoing process. Just as the anthropologist Elizabeth Edwards argued that the material forms of photographs arise out of multiple "events and processes" (E. Edwards 1999, cited in McFadyen and Hicks 2019:8), McFadyen, Hicks and Knight turn their attention to the events and processes involved in the taking and making of archaeological photographs. The key observation in Knight and McFadyen's work is that "It always takes time to take a photograph" (Knight and McFadyen 2019:57; cf. Riggs 2019:33). Knight and McFadyen note that in the early days of photography an exposure could take several minutes to make; the photographer "would have uncovered the lens, and then he would have looked at his pocket watch for two or three minutes before covering the lens again" (Knight and McFadyen 2019:57).[65] This example proves an intriguing call to explore archaeological photography as an embodied practice or process, rather than focusing analysis on the photographic image or object.

[64] A forerunner to this is Shanks and Svabo (2013) who also speak of duration but in the sense of a photographic print extending engagement with the moment 'captured' by a photographer.

[65] I also wonder how much of the characterisation of photography as freezing time is a reflection of the dominant photographic technology in the 1980s and 1990s.

Throughout this thesis I explore Crawford's photographic practice as a temporally extended set of embodied actions; not limited to the moment of pressing a shutter—or more accurately in the case of Crawford's cameras, triggering a lever—but incorporating travelling to and from a site or through a landscape, selecting subjects to be photographed, preparing and cleaning a site in accordance with the conventions of 'visual grammar', choosing the best angles to use, placing scale rods, working with and around other archaeologists or even responding to the vagaries of the weather. This durational perspective of archaeological photography as practice also invites the possibility of exploring the extended assemblages of people and things which are pulled into these acts of preparation, and opens up ways to speak of archaeological photography in more collaborative terms.[67] Furthermore, taking a durational perspective of archaeological photography as practice can also act as a counter to the suggestion that taking a photograph snatches a moment from the flow of time. Here I turn to Morton's argument that work on historic photographs "has too often been restricted to the evidential possibilities of isolated and de-contextualised images" (2009:253; cf. E. Edwards 2013). If one takes as a starting point the lived experiences of the photographer, rather than the photographic image or object, then the description of photography as isolating and snatching away moments in time falls short.

I am drawn again to McFadyen and Knight's use of Bergson, who writes:

> A thousand instants arise, which seem to be cut off from those which precede them, and to be disconnected from those which follow…Our attention fixes on them because they interest it more, but each of them is borne by the fluid mass… (Bergson 1911:3; cf. Knight and McFadyen 2019:55).

I am also thinking of an example given by Ingold and Hallam:

> As a child, you recall, a distant relative would make infrequent visits to your household, and every time, on first clapping eyes on you, she would exclaim 'my, how you've grown'. She remembers you only as she saw you last, and seeing you now she is struck by the change. Growth, for her, bridges the gap between then and now, and accounts for the difference between your previous and present appearance. But for you and for those around you, growth is going on all the time: you do not register it as change, or as a transition from A to B, but as life itself. (Ingold and Hallam 2014:4)

As archaeologists turning to the archive, we are like the relative in Ingold and Hallam's anecdote; we look at individual photographic prints and see frozen disjointed moments, forgetting that for Crawford the moments represented in the archive would have flowed seamlessly into each other. The impression this leaves is very much like being told to focus upon a single point in a join-the-dots

[67] A similar suggestion is made in passing by Carabott, Hamilakis, and Papargyriou (2015) who speak of the assemblage of subjects which coalesce within individual images.

puzzle. Taken alone, individual images may well seem to encapsulate themes of absence, stillness and disconnection, but approached with a durational awareness the threads connecting individual photographs and wider patterns of the photographer's experience begin to emerge. It is by attending to these connections that Crawford's presence may be detected most strongly. But, as I explore in Chapters Two and Four, the presentation and storage of photographs within archaeological archives can drastically affect our ability to re-establish the connections between individual images. In this thesis, seeking as I am the presence of Crawford and his practice as a photographer in the spaces between these photographic moments, I am often forced to look to sources external to the photographic prints themselves, using documents like Crawford's negative register and his annotations on the prints to begin to gesture towards this seamless flow of movement.

Morton (2009) has already established much of the groundwork for such an approach in his work developing a 'Whole Archive' approach to the anthropologist Evans-Pritchard's photographs of the Nuer rite of *gorot*. Working with Evans-Pritchard's negatives Morton was able to order each photograph which Evans-Pritchard took throughout the rite sequentially (Morton, Pers. Comm). Then combining this sequential order with a plan of the ritual site, Morton was able to track Evans-Pritchard's movements throughout the ritual, working backwards from the spatial and sequential relationships between the photographs to understand Evans-Pritchard's movements as a participant-observer of the rite, and to relate the physical composition and structure of Evans-Pritchard's archive to his movements in the field. Throughout this thesis I build on Morton's methodological approach to begin the work of foregrounding these flows of time between photographs and in doing so lean into the evidential possibilities of spatial, temporal and sequential relationships between archival photographs to speak to the presence of Crawford as a photographer.

The next way in which I work with time in Crawford's photography challenges Hauser's claim that photographs are devoid of "temporal depth" (2007:58). This approach draws on studies of time in archaeology which argue that rather than visualising a single linear stream of chronological time, we should instead think of multiple flows of duration clustering together in artefacts and landscapes.[68] In particular I adapt Antonia Thomas's (2019) work on archaeological photography in which she argues that photographs must be approached as "multi-durational artefacts" (cf. Baird 2011, 2019). Thomas builds on Hamilikas and Ifantidis' suggestion that the archaeological record is durational in

[68] Tilley defines 'duration' as "multiple rather than singular in character, characterized by coexisting times rather than a singular time" (2017:9).

nature, in that is it composed of "things that were produced and shaped in the past, but continue to live and exist in the present" (Thomas 2019:120; cf. Hamilakis and Ifantidis 2015:139). Thomas's approach centres on recognising the "coalescence" of temporalities in archival photographs, and then identifying which of these layers are singled out in subsequent academic analysis.[69] Though I find the core idea that photographs have the potential to gather within themselves and refer outwards to multiple temporal events exceptionally helpful to think through Crawford's photographs, Thomas' approach is premised in an over-emphasis on the photographic image and neglects to consider those temporalities present in the photographs as objects or in process of taking photographs.

To illustrate this point, let me turn to a photograph I took in the Summer of 2019 (Figure 1.11). The photograph shows the Cowley Workers Social Club in Oxford. Using Thomas's method I can identify multiple durations hinted in the image itself; from the style of the building and the wear to its structure I can guess at the century in which the photograph was taken. The posters to either side of the entrance give an indication of the month, while the length of the shadows give some suggestion of the time of day.

In addition to these temporal layers, there are a series of temporalities that may be deduced, not from the image, but from the photograph as an object. The initial exposure was made using a 1935 Rollieflex camera and medium format Ilford HP5 film. The developed negative was then scanned and digitally inverted, saved in a jpeg format and inserted into a word document. The camera that exposed the film dates back to 1935, but the film is modern—though it is a format first developed in the early 1900s. The scanner that digitally inverted the negative is compatible only with a limited range of computer operating systems, as is the software used to invert the negative thus locating it in a specific era of technological history.

But there are also temporal references that are not located in the photograph as an image, or in the photograph as an object, but in the process of making the photograph. I purchased the Rolleiflex when I first started researching this thesis because it was an approximate model to the one Crawford used. I spotted the building while on a walk one evening and deliberately returned to it the next day armed with my camera. I did so because I recognised that it was precisely this kind of building that Crawford himself would have photographed. To fully understand the temporalities at play one cannot simply identify the durational layers present in the photograph as an image, or even

[69] Carabott, Hamilakis and Papargyriou also speak of photographs as 'multi-temporal', however I would argue that their framing has an ultimately flattening and anachronistic effect, as they argue that photographs "condense different times as co-existence rather than succession" which "releases us from the passage of time" (2015:10).

as an object, but must also consider the temporal references that inform the work of the photograph, and how I, as a photographer worked with the juxtaposition of these temporal layers to produce the final product: a photograph of a modern workers club, taken with a vintage camera that deliberately harks back to the subject matter of a man who has been dead for over sixty years.



Figure 1.11 Co-existing temporalities and return in a photograph.

This brings me to the idea of return, which I explore in more detail in Chapters Three and Four. Return is intrinsic to the work of the above photograph, both on the level of my physical retracing of my own footsteps to recreate a viewpoint I had seen a day previously, to the more symbolic recreation of the kind of view that I supposed might have interested Crawford. There is something rather intimate in the act of retracing one's steps, of recognising connections between one's own photographic practice and that of another, or returning to look again at a photograph or site. In contrast to writing on archaeological photography which presents archaeological knowledge arising instantaneously from a perspective of distant and totalising certainty—like an aerial viewer watching the landscape unfold beneath them—I argue that meaning and knowledge emerges slowly out of the drawn-out process of assembling situated and partial perspectives. Return might manifest in an archive in the form of depositional sequences of photographs of the same subject taken over an extended timeframe, or the gradual building-up of a system of cross-references between images, or in ongoing alterations to the material form of a print. Both archaeological photography and the process of assembling an archive take time, and with time comes familiarity and understanding. And

so, by thinking about archaeological photography in ways that conjoin an interest in archival formation with theories of the temporal it is possible to draw out an understanding of Crawford's photography as an inherently intimate and situated practice.

1.4.2 The Archaeology of Archives: Assemblage

From speaking of photography as practice, I now turn to the interlinked idea of "archive-as-practice", introduced by Baird and McFadyen in their call for an archaeology of the formation processes of archives (2014:14). Like Hitchcock (2020) I use the concept of assemblage as a key structuring approach for studying the formation of an archive, and here I set out some of the practical and theoretical avenues such an 'assemblage-approach' can take. Assemblage is most commonly used within archaeology to describe a composition of "associated artefacts" (Fowler 2013:21). These are either a group of artefacts found within the same depositional context or a series of artefacts that share a typological similarity (Hamilakis and Jones 2017:77; Hitchcock 2020:6).[70] At its core, to speak of an assemblage approach to Crawford's archive is to reject the dominant trend of examining individual archaeological photographs and to demand that the photographs in Crawford's archive are understood as connected and interlinked objects whose meaning arises out of their shared material, presentational and relational properties.[71]

The majority of existing approaches to archival collections which recognise relationships between photographs limit their study to a single depositional context; be this a single box of archival material (e.g., Edwards and Hart 2004), working across the totality of a photographer's collection within an archive (e.g., Morton 2009), or exploring the connections between photographic collections held within a specific institution (e.g., Ouzman 2006). Such studies normally explore the pathways by which collections came to reside within a particular institutional space, and note any major changes to their composition, use or context within that location. Previous attempts have been made to study Crawford's archive in this manner. Stoddart and Malone presented a study of the "the formation processes" of Crawford's archive; though in doing so they focused entirely upon the written papers with no recognition of the existence of the photographic collection, nor did this study represent any real interrogation of formation beyond noting the date at which the collection was accessioned to the Bodleian Library and earmarking obvious gaps in its composition (2002:915).

[70] Joyce and Pollard describe deposition as "the process of laying-down or accumulation of sediments and materials to form an archaeological context"; this may be done intentionally or may be the unintended result of an event or action (2010:292).

[71] Cf. E. Edwards (2002) on the 'material and presentational forms' of photographs. Brusius and Singh (2018) has been a pivotal intervention in arguing for a closer examination of storage spaces in museums and archives as part of wider systems of meaning making, but the volume is notably silent on the storage of photography in museum and archival spaces beyond a brief reference (2018:6).

Such focused attention on sub-collections of material within a single depositional context can prove incredibly useful especially when turning to a fine-grained analysis of archival formation processes. Photographs often suffer from sitting awkwardly in institutional spaces; never quite acquiring the status of other artefacts and therefore lacking the usual level of documentation that would accompany more 'formal' artefact collections (Edwards and Morton 2015).[72] This lack of documentation can pose significant methodological barriers to understanding how photographic collections come to settle within specific archival spaces and how the formation process might be ongoing within institutions. It is here that the notion of trace becomes especially significant, as demonstrated by Lucas' (2010a) work on residuality. Lucas explores varying levels of material resistance to the reorganisation of archival material. Within Lucas's scheme interventions in the form of a collection can be identified on a spectrum from those which leave distinctive traces and are almost impossible to reverse (e.g., adding a new series of annotations in pen to a print), to interventions which leave traces but are themselves reversible (e.g., reordering a series of loose but numbered prints) to traceless interventions (e.g., reordering loose unnumbered prints). Lucas' work imparts a distinctive archaeological awareness of the types of processes that are often involved in the management of archival collections and the kinds of traces that such events leave behind them, as well as introducing a key archival dynamic; the tension between accumulation, reformulation and divestment (cf. Ouzman 2006; Stevenson 2021). This framing of residuality and material resistance is a very different prospect from the ways in which archives are traditionally written about as sites of 'memory', 'forgetting' and 'absence'; this is a distinctively archaeological approach which teases the possibility that even divestments of archival material or attempted erasures may leave behind recoverable traces (Lucas 2010a:343). This method of tracing the dynamic material movements of a collection once it has reached an institution—especially when combined with an ethnographic awareness of institutional context—can be crucial for understanding the ways in which archaeological archives have historically been used and understood.

While the approaches discussed above have centred on what E. Edwards (2018) terms the 'gathering-in' of archival material to a depositional context, Edwards argues that contemporary studies of photographic archives have overplayed this dynamic, and argues that it is more productive to adopt a "centrifugal model" and focus instead on the ways in which photographs might spread outwards through institutional ecosystems (cf. Stevenson 2021). Edwards refers to Gell's (1998) conception of a distributed object; arguing that archives can maintain a 'conceptual unity' whilst

[72] Documentation concerning artefacts can also be notoriously patchy and uneven (e.g., Stevenson 2020).

being physically and spatially dispersed.[73] Though the concept of dispersal plays a role in the formation of any archaeological archive it is particularly relevant in the case of photographic archives. As Riggs notes photographs "are not unique objects and are not intended to be" (2019:47). The 'reproducibility' of photographs means that they do not exist as singular objects in the same way that we might normally think of museum artefacts but bear familial relational connections; from a single negative a whole lineage of photographic prints can be produced (Riggs 2016). Similarly, the growing number of digitization initiatives in recent years extend genealogical links between photographs from the physical into the digital realm (cf. Baird and McFadyen 2014).[74] Consequently Elizabeth Edwards argues it is useful to consider the position which photographs occupy within the wider 'ecosystems' of a museum or archive (2015, 2016a, 2016b, 2016c). Edwards argues that photographs are likely to occupy one of three positions; as either "formal collections with object status", "recognised yet marginalised assemblages of 'informational' archives", or 'non-collections'—photographs produced as part of the daily running of the institution which are considered institutional documentation rather than collections in their own right (2016a).[75] While Edwards' work on institutional ecosystems begins the process of tracing the mechanisms by which photographs might be distributed throughout a museum or archive, this approach too is ultimately oriented around the context of exploring the spread of photographs within the bounds of a single institution.

This brings me to the second conventional use of the term 'assemblage' which—much like Gell's example of the tea-set—designates a collection of artefacts that may be spatially dispersed across depositional contexts but which maintain a typological or conceptual unity. Unlike Edwards work which explores the spread of photographs within individual institutions, here my emphasis is on tracing connections between institutions. In the case of Crawford's archival assemblage this conceptual unity is most immediately evident when we examine the dynamics of the formation process of Crawford's written papers and photographs. Despite the present separation of Crawford's written papers in the Bodleian Library and Crawford's photographs in the Institute of Archaeology during Crawford's lifetime his photographs and written papers grew together in an organic entanglement.[76] As the Archaeology Officer of the Ordnance Survey and editor of *Antiquity* Crawford was at the centre of a vast network of correspondents; frequently complaining to close friends of a

[73] Gell used the example of a tea-set as an "object having many spatially separated parts with different micro-histories" (1998:221).
[74] Though I restrict my analysis in this thesis to Crawford's physical archival collections.
[75] Given the recent archival turn, photographic collections that fall into the second of Edwards' categories are beginning to be recognised as formal collections (E. Edwards 2016c).
[76] There are a few exceptions to this separation of letters and photographs, as for example Print 23.42 where an associated letter is tucked between the photographic print and mount.

"hypertrophied mailbag" (MS Crawford 75.32) and even sending sketches of himself being overwhelmed by a storm of incoming missives (Figure 1.12).[77] This tempest of letters was accompanied by an equally frenzied exchange of photographic prints and negatives.[78] Guha has characterised the exchange of photographs as "currencies of information" as an overlooked aspect of the role which photography played in the history of archaeology (2010:170, 2005). But the practice of circulating archaeological photographs was not simply an exchange of documented 'facts but a means of negotiating and actively producing meaning. As an example, Print 9.30 (Figure 1.13) was originally circulated by Crawford as an example of carved cup marks but his interpretation was rejected by a colleague —R.J.C. Atkinson— who argued that the depressions noted by Crawford were more likely the result of "natural weathering" (MS Crawford 101.104).[79] It is this latter negotiated interpretation which was subsequently inscribed onto the mount of the print by Crawford.

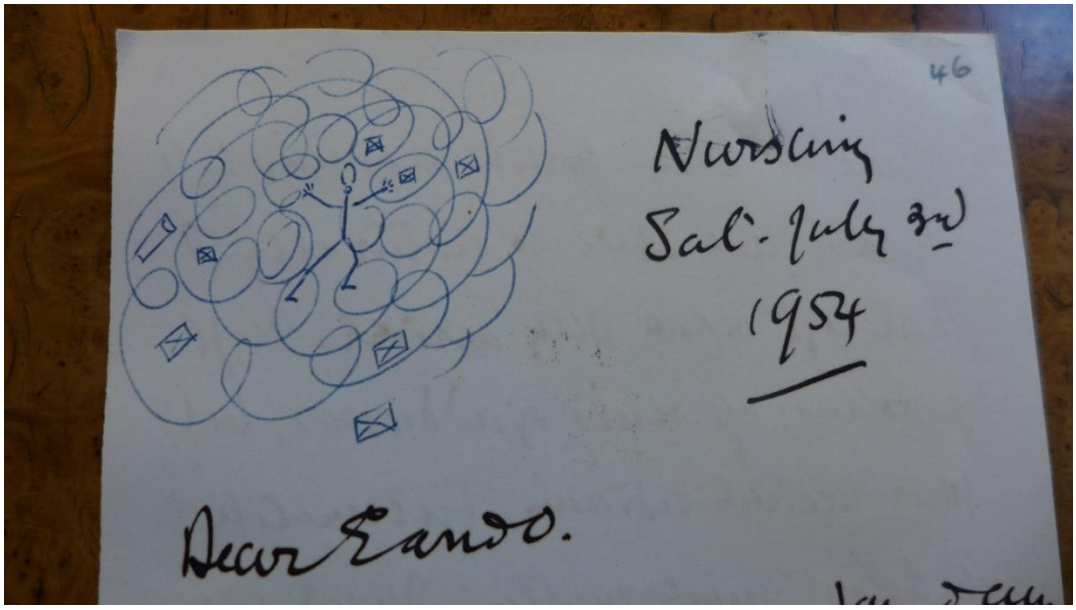


Figure 1.12 A Tempest of Letters. MS Crawford 75.46.

[77] Stoddart and Malone describe "letters exchanged as rapidly as emails" (2002:916).
[78] See for example the note on the reverse of the cardboard mount of Print 3.105 on which Crawford has written "Please return to O.G.S. Crawford, Nursling".
[79] See Chapter Four for the context of the photograph.

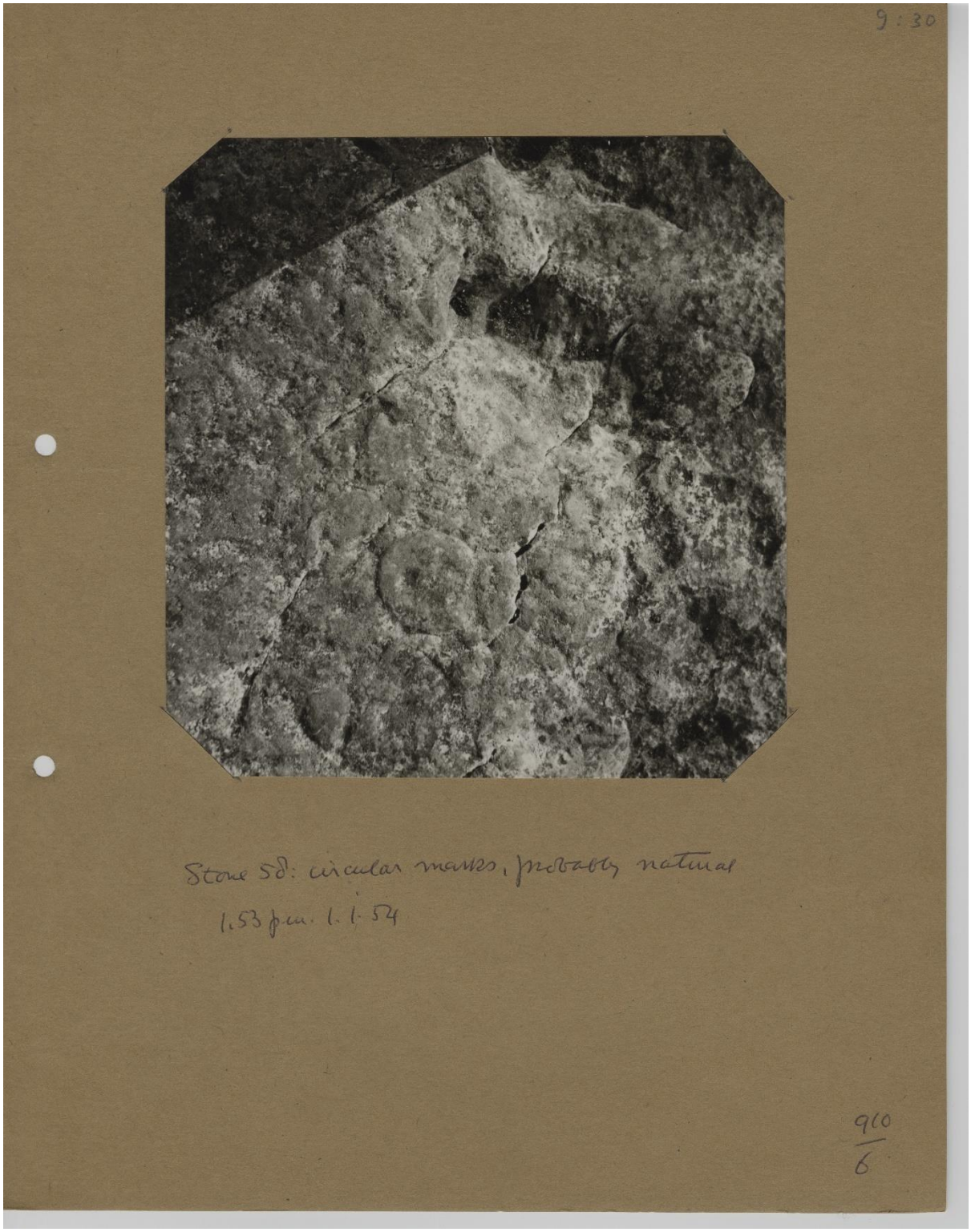


Figure 1.13 Carved cupmarks or natural formations? Print 9.30.

Though in the present Atkinson's letter and Print 9.30 are stored in two separate repositories with no institutional documentation to ostensibly link them together, this physical dispersion does not negate the fact that these letters and photographs once travelled together bundled within the same envelope. Photographs prompted the generation of letters and vice-versa, and photographic meaning arose out of these complex and fluid relationships between photograph and written missive. It is details like Crawford's annotation on the mount of Print 9.30 that materially manifest the conceptual linkage between the two archival documents and by extension the broader unity between the two seemingly separate collections in which they are held. Nor is the conceptual unity of Crawford's archival assemblage limited to interactions between his photographs held in the Institute of Archaeology and letters in the Bodleian Library. Crawford's correspondents would often retain copies of circulated prints or make their own via re-photography or by printing directly from circulated negatives. And so, series of photographic prints which bear familial relationships to those retained in Crawford's photographic archive came to settle in a variety of personal and institutional archives, thus establishing further branches of connections between archival collections. In turn, Crawford also accumulated photographs in this manner—actively soliciting photographs from likely sources (Barber 2015:35; Bowden 2001). Consequently, a significant proportion of the 10,000 prints that currently make up Crawford's photographic archive in the Institute of Archaeology are not the product of Crawford's camera.[80]

Tracing the spread of Crawford's archival assemblage across collections and institutions invites the consideration of what else might accompany the flow of photographs and letters into or out from an archive. In their history of collecting at the Pitt Rivers Museum Gosden, Larson and Petch (2007) argue that objects collect people. Archaeological collecting in the twentieth century—much like the process of documenting excavation discussed above—has been characterised as driven by the desire to create a 'total record' in the sense of "acquiring as full or complete collections of material as possible" (Lucas 2012:18). Gosden et al. argue that under these conditions collectors would work to establish networks of correspondents who could be used to facilitate the acquisition of objects, and so "collecting people was the best way to collect objects" (2007:88). Photographs helped grease the wheels of these social relationships as well as being objects being worthy of collection in their own right; images originally produced as part of archaeological enquiries became repurposed and circulated as in-jokes and greetings cards, as was the case for Print 19.32—a photocollage of sites including Hambledon Hill, Maiden Castle and Avebury sent to Crawford by Stuart Piggott as a

[80] In an initial survey of the archive's contents Laura Morely (2012) identified 8234 photographic prints—taken by Crawford and colleagues—71 letters, 511 postcards, 6 greetings cards, 62 newspaper and magazine cuttings, 279 drawings, 9 glass plates and 1 museum entrance ticket.

Christmas card in 1934 (Figure 1.14).[81] These informally exchanged images often found their way back into the archives and are preserved alongside prints intended for more serious research purposes demonstrating the ease and fluidity with which archaeological photographs and illustrations could move between personal and professional spheres.



Figure 1.14 Photo-collage. Print 19.32.

[81] Various sections of this collage have been identified by Neil Wilkin, Jack Rowe, Rachel Pope, Joana Valdez-Tullett and Joshua Pollard. My thanks to all named above for their enthusiastic participation in a Twitter investigation of the print and for becoming some of the most recent actors in Crawford's archival assemblage.

Implicit in prints like 19.32 and 9.30 is the invitation to consider how the process of assembling an archaeological archive involves the entanglement of multiple participants each of whom leave their own traces in the collection to varying degrees of visibility. Doing so entails a shift away from speaking of the archive as representing the material trace of a single monolithic figure, and opens up pathways for thinking and writing about the history of archaeology that diverge from the dominant narratives of progress driven by individual figures.[82] Here to speak of 'assemblage' is to draw on the more contemporary adoption of the term in social theory, wherein assemblages are used to describe social networks of human and other-than-human actors (Deleuze and Guttari 1988; Latour 2005; Fowler 2013; Hamilakis and Jones 2017).

Even in these brief examples—and as will become evident in the following chapters—neither the study of the 'gathering-inwards' of photographs to a centralised depositional context nor the centrifugal spread of photographic prints and negatives outwards throughout institutions is quite sufficient to explain the formation process of Crawford's archive. I have found it more helpful to think of archival formation as a multi-sited process; with a range of depositional contexts forming hubs from which photographs are drawn inwards and spread outwards. Likewise, rather than thinking of Crawford's archive as a static collection deposited into an institution for preservation—thus treating all subsequent changes made to the collection as the work of interlopers at best and actively damaging at worst (e.g., Hauser 2008:x)—it is far more accurate to state that just as during Crawford's own lifetime his photographic collection was not settled or stable in the decades since his death the archive has remained in flux. In this model the formation of an archive is an ongoing and unending process, that can be broadly conceptualised as taking place through a series of opposing tensions; Accumulation/Divestment and Deliberate/Accidental acts. To examine these processes in action it is helpful to offer an overview of the formation of Crawford's archival assemblage to date (Figure 1.15). In doing so it is possible to simultaneously identify key events in the shaping of Crawford's life and legacy and note the ways in which each permutation of the formation process has played a role in determining visions of Crawford's archaeological and photographic practice.

[82] See Berry (2021) on archival naming conventions as emphasising lone collectors over communities.

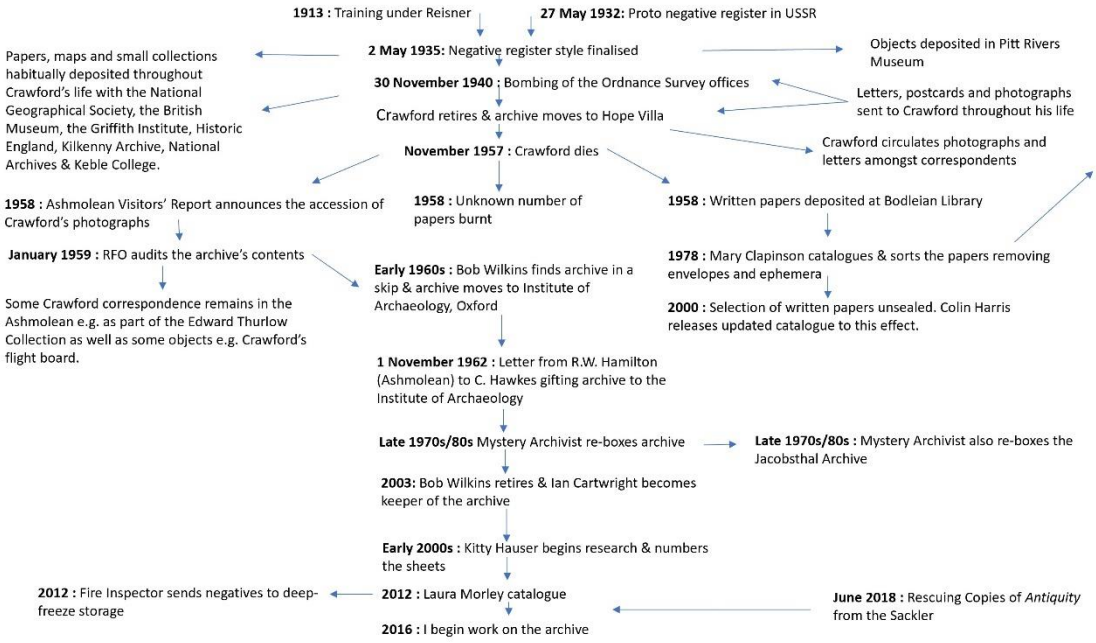


Figure 1.15 The formation process. Diagram by the author.

1.5 Formation: A Long View

1.5.1 Accumulation

Crawford was an active photographer from a young age—in his autobiography he recalls going on school trips overseas armed with "a poor sort of camera" (1955:29).[83] Photographs taken during this period leave only a faint impression on his archive and in the present are most commonly found clustered in Boxes 35, 39 and 41.[84] They show Crawford and his aunts, family pets, his childhood home, and his old schoolmaster C.G. Bell (Figure 1.16 & Figure 1.17). His ventures as a young adult leave a similarly light touch; a handful of photographs of Crawford rowing for Keble College, faded prints of Crawford in his first paid roles as an archaeologist en-route to Rapa Nui, and later in Sudan between 1912 and 1914 (Figure 1.18 & Figure 1.19). It is his work as a front-line photographer during the First World War that represents the first major sub-collection of his photographic archive—88 photographs taken by Crawford supplemented with a further 45 photographs of the conflict collected from RFC records appear in Box 28.[85] Yet at the end of the First World War Crawford stopped taking photographs. In his autobiography he claimed that he had done so "partly on grounds of expense, partly because it is a form of slavery" (1955:209). But as I explore throughout this thesis, changes in the rhythm of Crawford's photographic activity are usually reflective of his mental state, and I suspect this break in activity represented a period of decompression from a deeply traumatic period of Crawford's life. It was not until 1931 at the age of 45 that Crawford, encouraged by a friend, purchased a Voigtlander camera while on holiday in Bad Ischl, Austria (Figure 1.20). Crawford recalled "we proceeded at once to take photographs of each other" (1955:209). From this moment onwards photography remained a constant presence in Crawford's life, and as he settled once more into a rhythm of photographic activity the Voigtlander was replaced with a more expensive Rolleiflex model.[86]

[83] In a note on Print 35.100 Crawford records that his first camera was acquired at the earliest around 1900, which would have made him about fifteen when he took his first photograph.
[84] These boxes are labelled "OGSC, members of his family & other associates and colleagues" and "Portraits I" and "Portraits II".
[85] I discuss this collection of prints in Chapter Four.
[86] "I have just brought a new camera and this will be a good chance for using it" (MS Crawford 68.2). Crawford also noted in his negative register 8th March 1936 as the date he switched to the Rolleiflex.

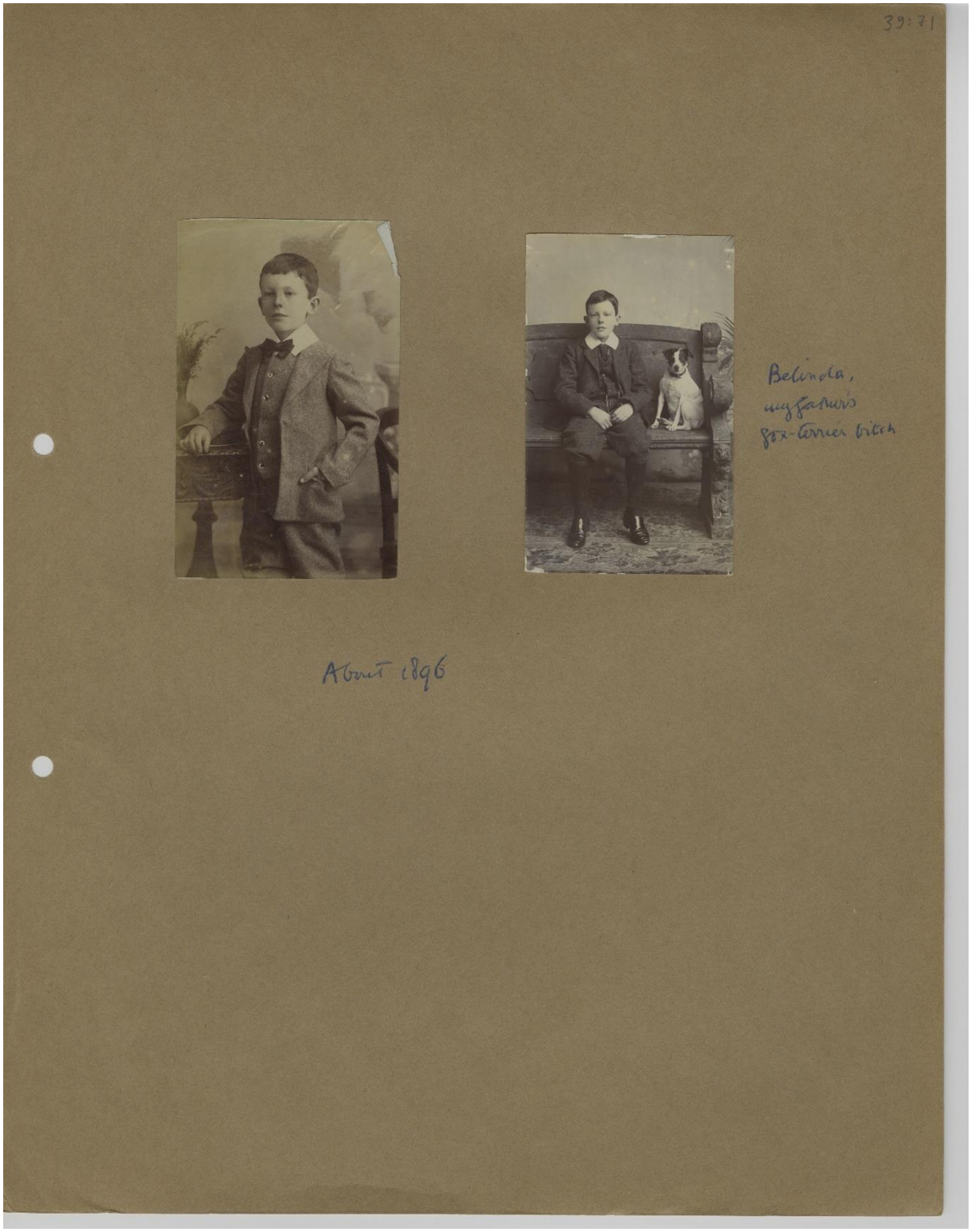


Figure 1.16 Crawford and Belinda. Print 39.71.

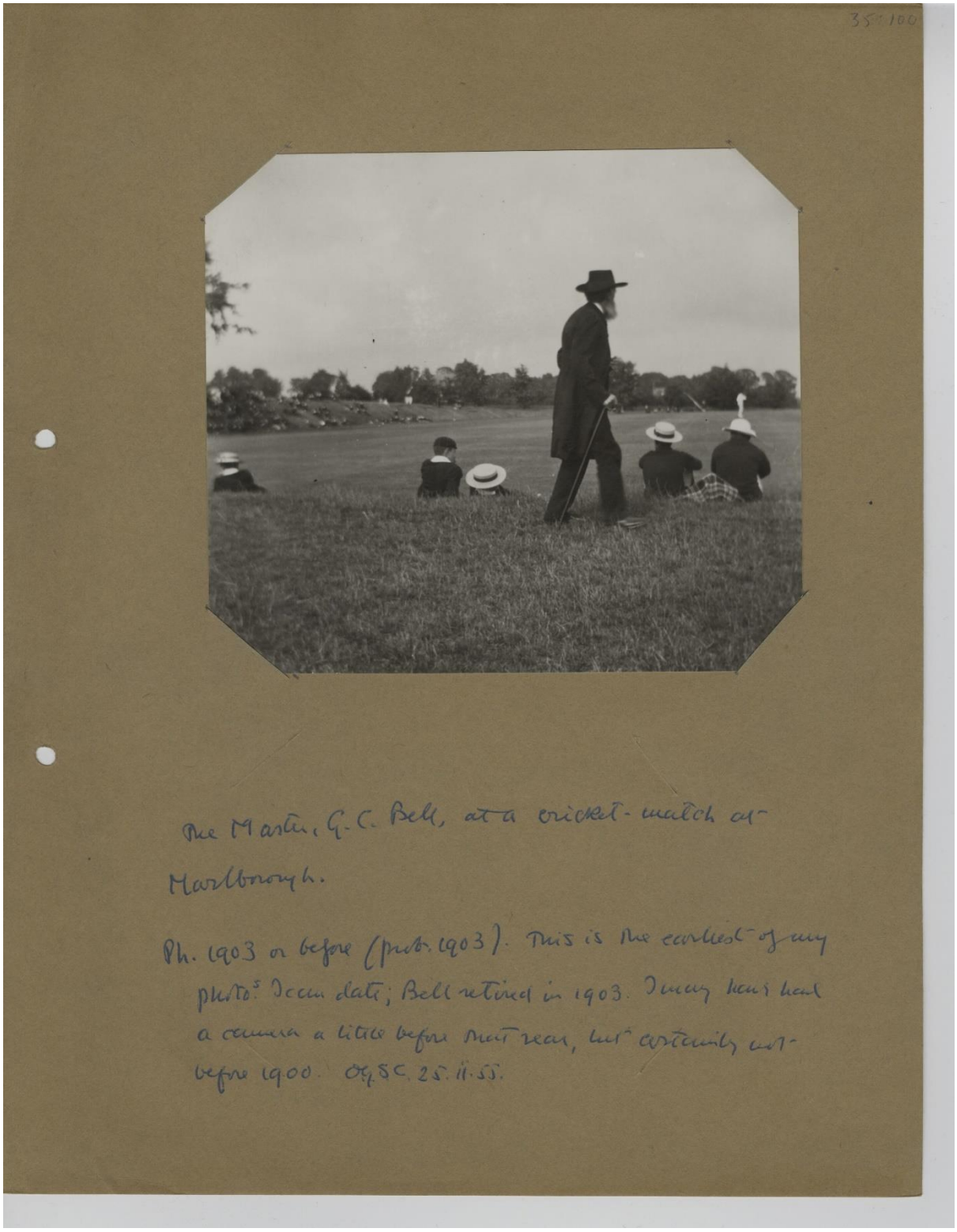


Figure 1.17 One of the earliest photographs taken by Crawford. Print 35.100.



Figure 1.18 Rowing for Keble. Print 39.69.

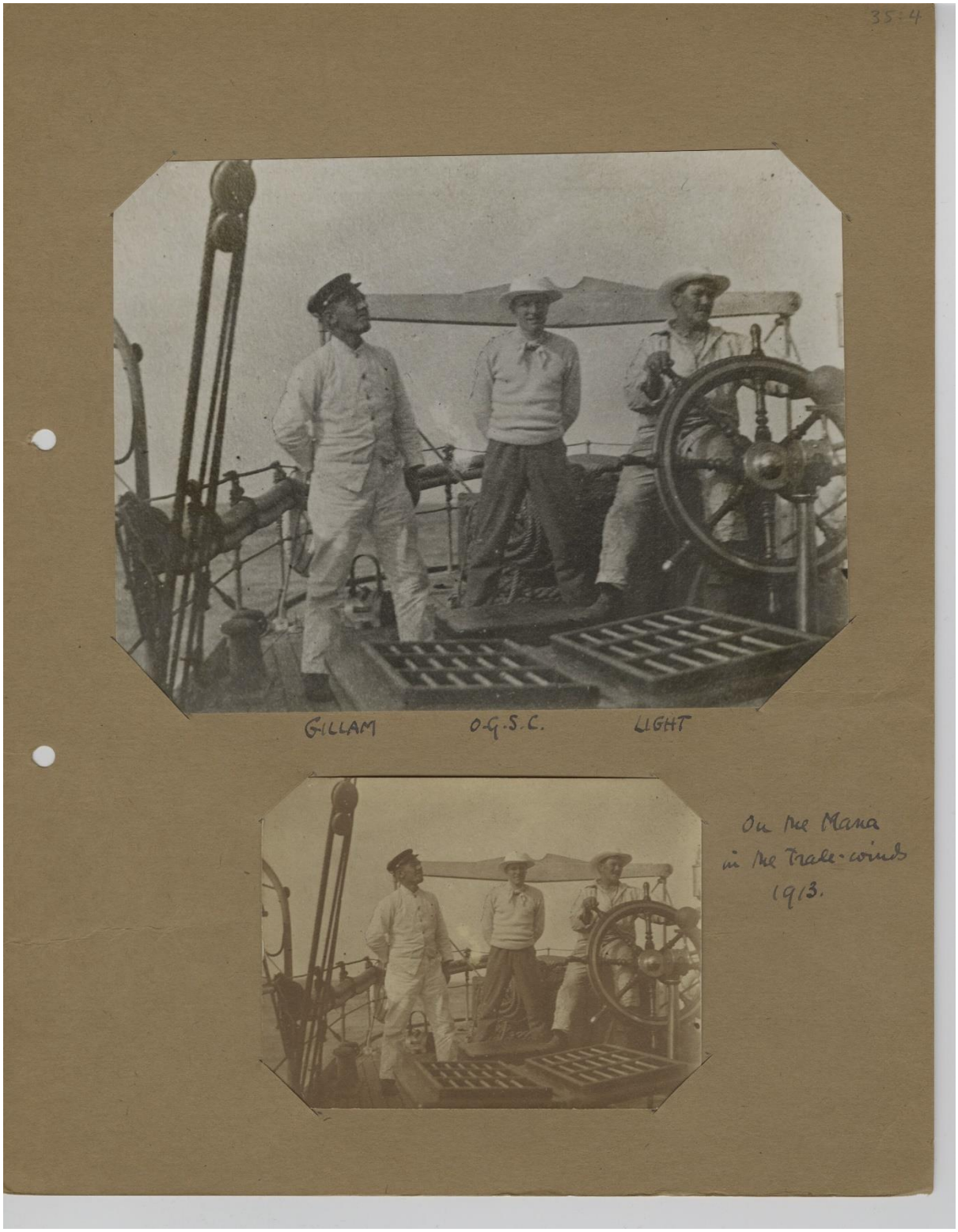


Figure 1.19 Crawford on the Mana. Print 35.4.

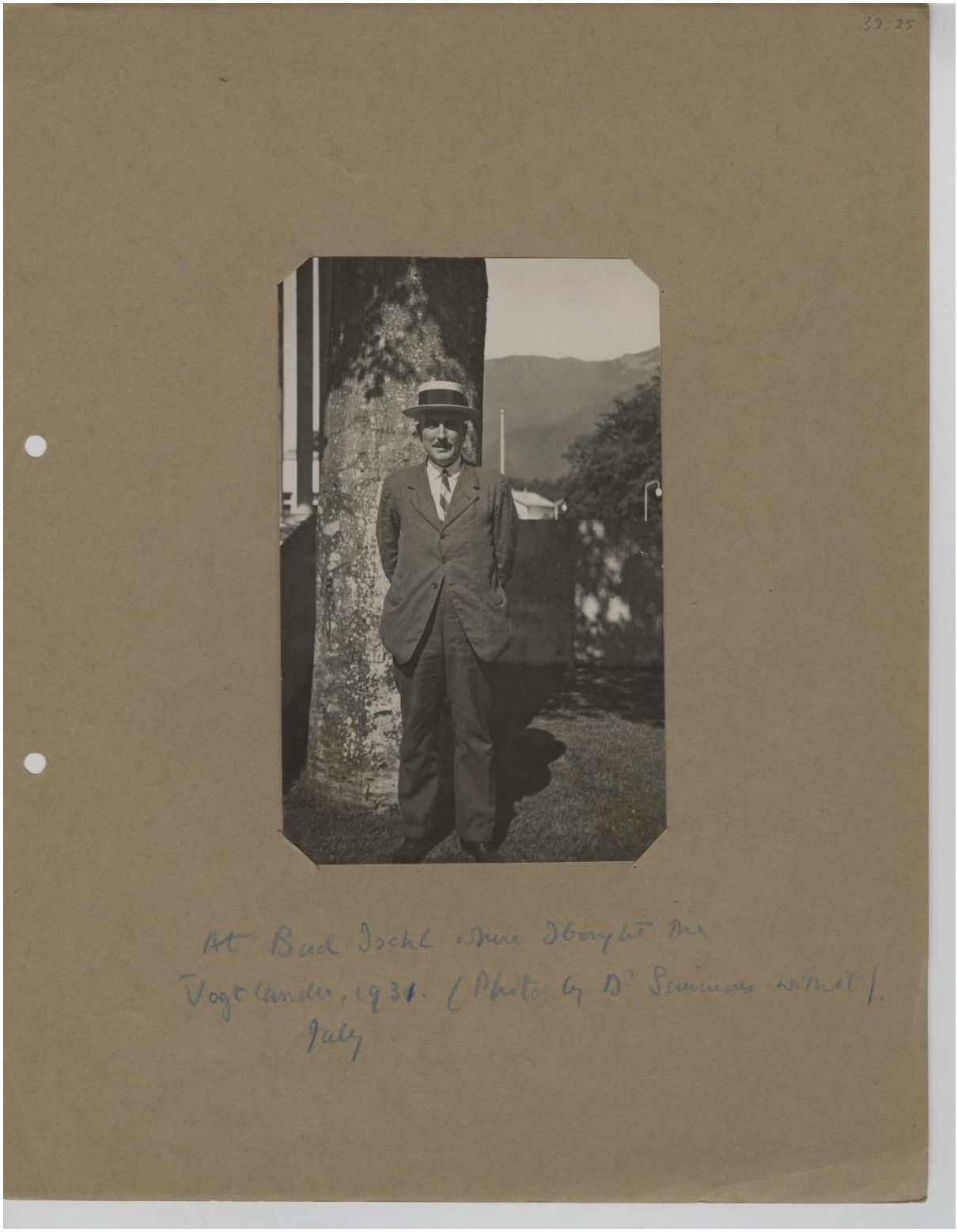
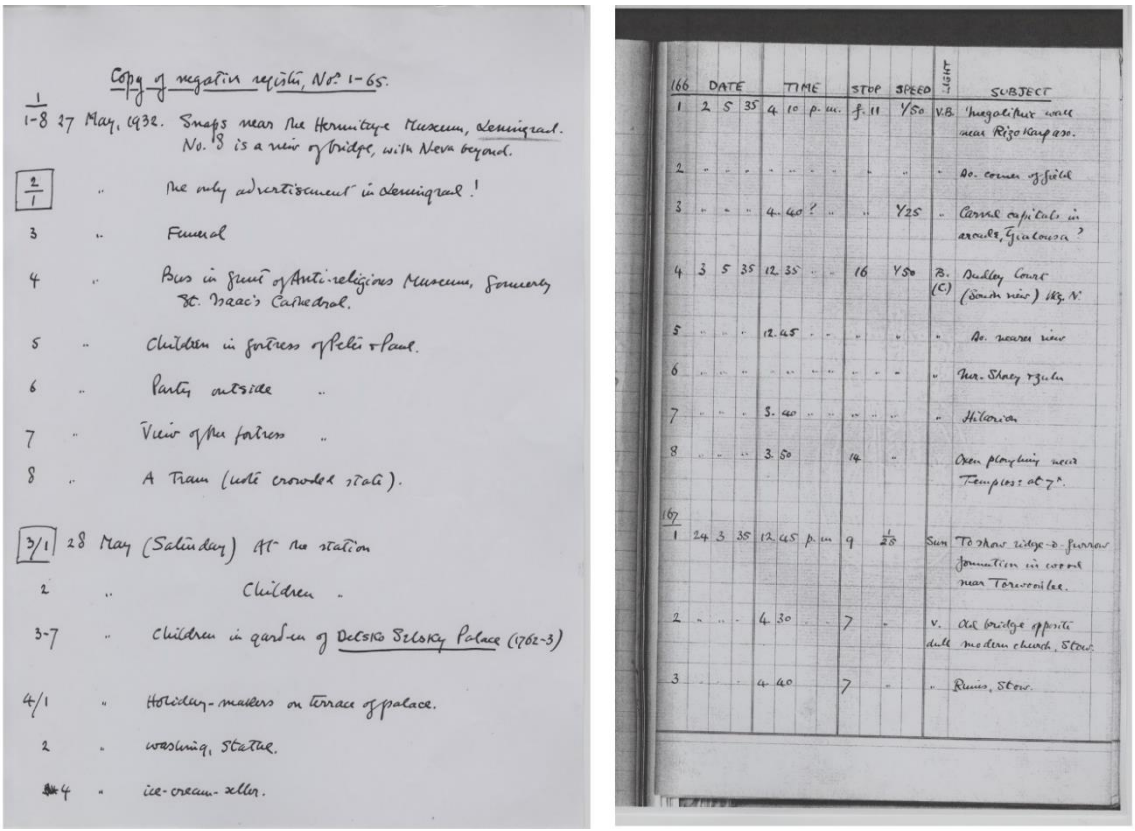


Figure 1.20 Return to photography. Print 39.25.

The next significant moment for the photographic collection came in 1932 when Crawford—then an enthusiastic Marxist—undertook a tour of the USSR, shooting over 50 rolls of film during the course of the trip.[87] These exposures were the very first to be listed in a negative register.[88] Negatives 1/1 to 1/8 in the register are simply recorded as "Snaps near the Hermitage Museum, Leningrad". Though not the first photographs taken by Crawford, the introduction of a systematic recording procedure was a key moment in the formation of the archive as an organised collection. It is possible to watch this recording system refine itself; from looser notes on each exposure, to the entry for 2nd May 1935 at which point Crawford began to consistently record the negative number, date, time, aperture setting, length of exposure, and subject matter along with notes on the quality of the light (

Figure 1.21). From this day to 8th November 1957—the day on which Crawford took his final photograph—Crawford followed this system exactly.[89] Details contained within these negative registers make identifying the ebbs and flows of Crawford's photographic practice possible on an exceptionally detailed temporal scale; some photographs stand entirely alone—clearly the result of chance encounters—such as the note for negative number 121/6 recording a snapshot of a "Lorry Accident" taken on 30 May 1934. There are clusters of photographs produced as the result of deliberately planned short research trips—such as the photographs taken at Sutton Hoo discussed in Chapter Two, or those taken at Stonehenge discussed in Chapter Four. Yet other groupings of photographs dedicated to a single theme—like the studies of gravestones found in Box One—were taken over the course of decades. As I discuss in Chapters Three and Four the material produced as part of these longer cycles of accumulation often held intense personal significance for Crawford.

[87] Crawford wrote an unpublished account of these travels entitled *A Tour in Bolshevy*, a copy of which is preserved in the Sackler Library.
[88] Crawford's negative registers are also held by the Institute of Archaeology, Oxford.
[89] The final entry in the negative register—982/12—is a photograph of a tithe barn taken at midday on 8th November 1957.



Copy of negative register, Nos 1–65.

1/1-8 27 May, 1932. Snaps near the Hermitage Museum, Leningrad. No. 8 is a view of bridge, with Neva beyond.

2/1 " The only advertisement in Leningrad!

3 " Funeral

4 " Bus in front of Anti-religious Museum, formerly St. Isaac's Cathedral.

5 " Children in fortress of Peter & Paul.

6 " Party outside "

7 " View of the fortress "

8 " A Tram (quite crowded scene).

3/1 28 May (Saturday) At the station

2 " Children.

3-7 " Children in garden of Peter's Palace (1762-3)

4/1 " Holiday-makers on terrace of palace.

2 " washing statue.

3 4 " ice-cream-seller.

166	DATE			TIME			STOP	SPEED	LIGHT	SUBJECT
1	2	5	35	4	10	p.m.	f.11	1/50	V.B.	'Hegalithic' wall near Rizokastro.
2	"	"	"	"	"	"	"	"	"	Ao. corner of field
3	"	"	"	4.	40 ?	"	"	1/25	"	Carved capitals in arcade, Tiryns ?
4	3	5	35	12.	35	"	16	1/50	B. (C)	Dudley Court (South view) 183, N.
5	"	"	"	12.	45	"	"	"	"	Ao. nearer view
6	"	"	"	"	"	"	"	"	"	Mer. Shaw Tyrin
7	"	"	"	3.	40	"	"	"	"	Hilarion
8	"	"	"	3.	50		14	"		Oxen ploughing near Temples at 7°.
167										
1	24	3	35	12.	45	p.m.	9	1/25	Sun	To show bridge & furrow formation in corn near Tarsoonlee.
2	"	"	"	4.	30	"	7	"	V. dull	Old bridge opposite modern church, Stow.
3	"	"	"	4.	40		7	"	"	Ruins, Stow.

Figure 1.21 The development of the negative register.

1.5.2 Structuring and Divestment

It is evident that Crawford took great pains to curate this vast volume of accumulated material. As will become clear shortly, the 50 archival box files in which Crawford's photographs are currently stored are a posthumous addition to the archive. Attempting to reconstruct the underlying logic by which Crawford structured and presented his photographs hints at the purposes which he intended his photographs to serve. Two locations stand out as hubs from which Crawford accumulated and organised his photographs and research material; his offices in the Ordnance Survey (Figure 1.22) and his home, Hope Villa in Nursling.[90] Each location offers distinctive clues to the archival formation process. Crawford's photographic archive has been characterised as a working collection; assembled for the purpose of providing Crawford with a systematic means of marshalling together the "tiny facets" of archaeological evidence which when viewed with sufficient distance could be used to reconstruct the overarching pattern of history (Crawford 1927:1; cf. Hauser 2007, 2008). Hauser describes the Ordnance Survey offices as functioning as the "epicentre" of Crawford's work; the location at which he began to compile prints from RAF aerial photographs, copies of antique maps, and the notes of amateur field archaeologists for purposes of identifying and classifying archaeological sites in order to revise outdated archaeological references on Ordnance Survey maps (Hauser 2008:60-71). The material form which this collection took has stirred little scholarly interest, though Hauser has speculated that Crawford organised his photographs along lines that were "sometimes geographical, sometimes typological" (2008:147).

Certainly, the typological and geographical organisation of the photographs held in the Institute of Archaeology in the present day, combined with the presence of cardboard file dividers which bear Crawford's handwriting listing geographical subdivisions (Figure 1.23) seem to confirm Hauser's impression.[91] Moreover the presentation of individual photographs on loose sheets of card outfitted with punch holes speak of a collection that was intended to be comparative in purpose and to grow organically as new material came to light.[92] Annotations on individual prints within the collection which provide cross-references; either between photographs, for example the contrasting views of

[90] Crawford first visited Hope Villa as a lodger in 1912, and became a full-time tenant in 1935 living in the house until his death in 1957 (Crawford 1955:154).

[91] See Prints 28.54, 30.87 and 48.96 as examples. Print 1.38 is also annotated "A better print in 'Scotland 2'" which adds weight to the argument that at least some of Crawford's photographs were organised geographically.

[92] It seems likely that the origins of this system originate from Crawford's training under George Andrew Reisner in 1913 (See Chapter Three). Instructions on the management of photographs written by Reisner can be found in MS Crawford 95 and in a previously unpublished manuscript on archaeological photography (Manuelian and Reisner 1992). There are marked similarities between the organisational techniques prescribed by Reisner and those followed by Crawford, from the typological arrangement of prints to the methods of fixing prints to mounts.

the same site taken in different seasonal conditions (e.g., Figure 4.45) or comparing photographic prints with relevant publications (e.g., Figure 1.24) also add weight to the argument that the collection was intended to aid Crawford in weaving together the fragmentary and partial remains of the past. The mixture of pen and pencil used for these annotations on the same mount suggest that he reworked these observations on multiple occasions. Two prints in the archive—Prints 2.75 and 37.10—bear annotations by Crawford's hand dating them to 1955, though Crawford's negative register shows that the photographs were taken on 27th July 1939 and 25th March 1950 respectively, and so it is likely that at least some of these labels were written by Crawford long after he took the photographs, perhaps as part of the process of preparing the albums for deposition after his death.

And yet there is evidence that Crawford maintained more informal photographic collections. In his description of his work at the Ordnance Survey Crawford described the organisation of his accumulated research materials in albums "modelled on those I had for my own photographs" (Crawford 1955:167,214-215). A Postcard depicting the Old Market Hall of Overton-on-Dee sent to Crawford's home address bears the note "for your album" (Figure 1.25). Like the photocollages exchanged between colleagues (Figure 1.14), details like these speak to the accumulation of items of personal interest and significance in addition to photographs used for purely academic purposes. Barber (2015) sets Crawford's efforts to accumulate photographs in the course of his work for the Ordnance Survey in the context of Crawford's wider collecting practices; noting that Crawford "perpetually walked the line between collecting and hoarding" in all aspects of his life (2015:3). Though Crawford's collecting of artefacts falls outside the scope of this thesis, it is vital to recognise that much like the ways in which these artefacts overflowed into Crawford's domestic life the archival formation process was deeply entangled with the mundanities of Crawford's life, and similarly permeated the boundaries of the personal and professional. This domestic context leaves its own unique material traces in the archive, as in the example of a letter (Figure 1.26) in which Crawford begs the forgiveness of the recipient— "Excuse cat marks! Grannie has taken to sleeping in my "pending" tray" (MS Crawford 74.138).[93]

[93] A significant number of photographs of the culprit can be found in Box 49 of the photographic collection. See Doherty (2018) and Brown (2019) on the role of the domestic in archival formation.



Figure 1.22 Crawford at his desk at the Ordnance Survey. Loose print in MS Crawford 75.

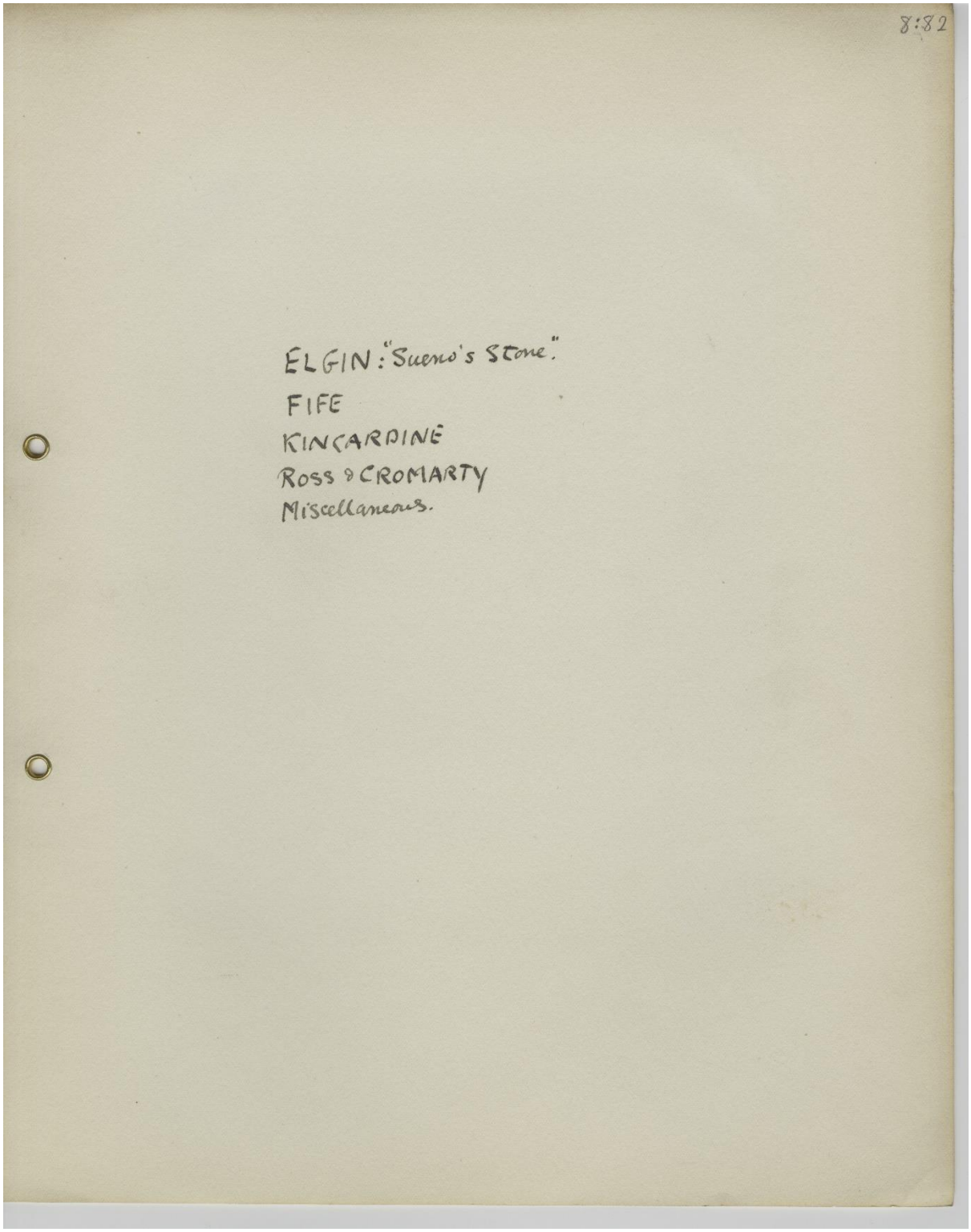


Figure 1.23 Geographical organisation of the archive. Print 8.82.

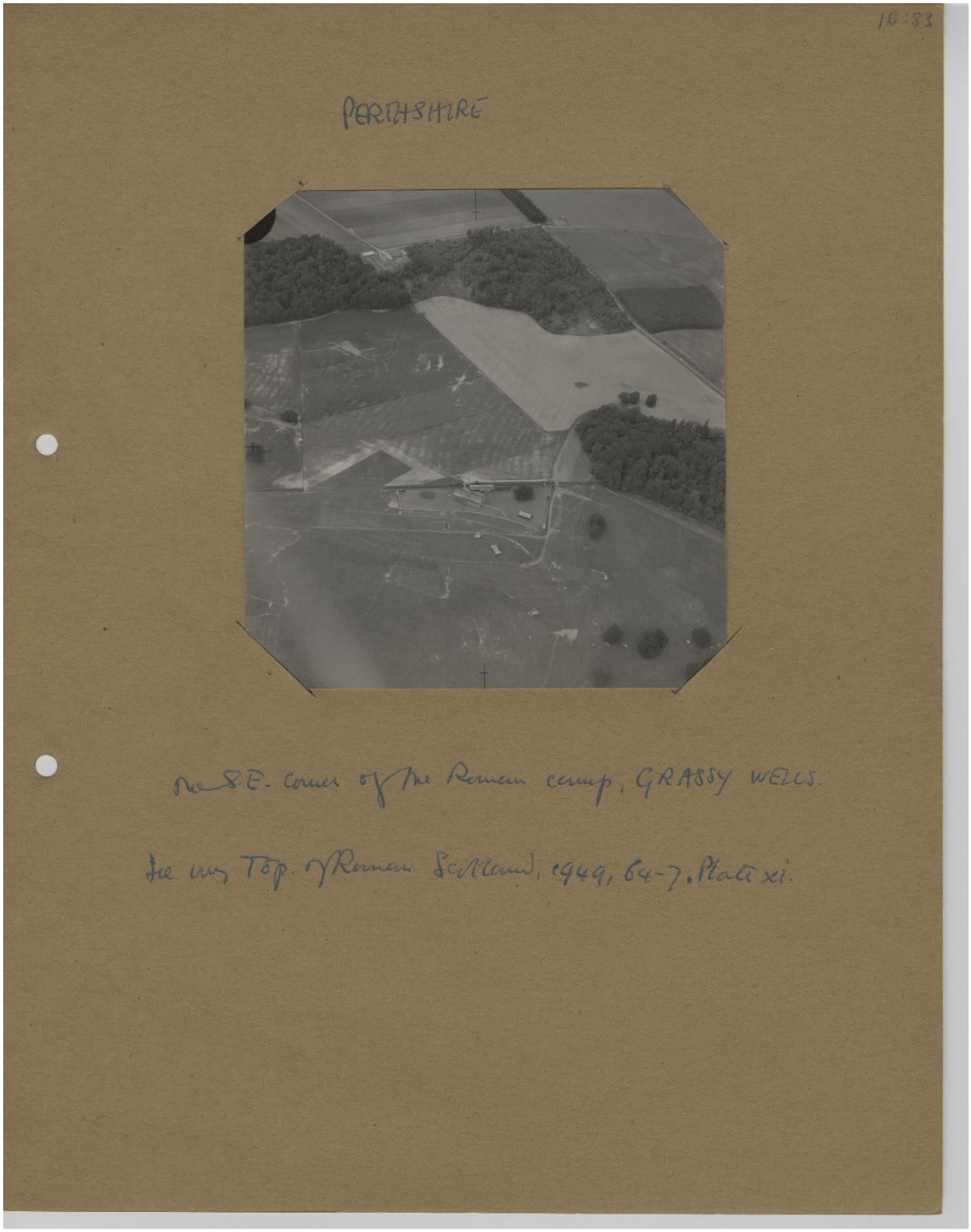


Figure 1.24 Cross-references. Print 10.83.

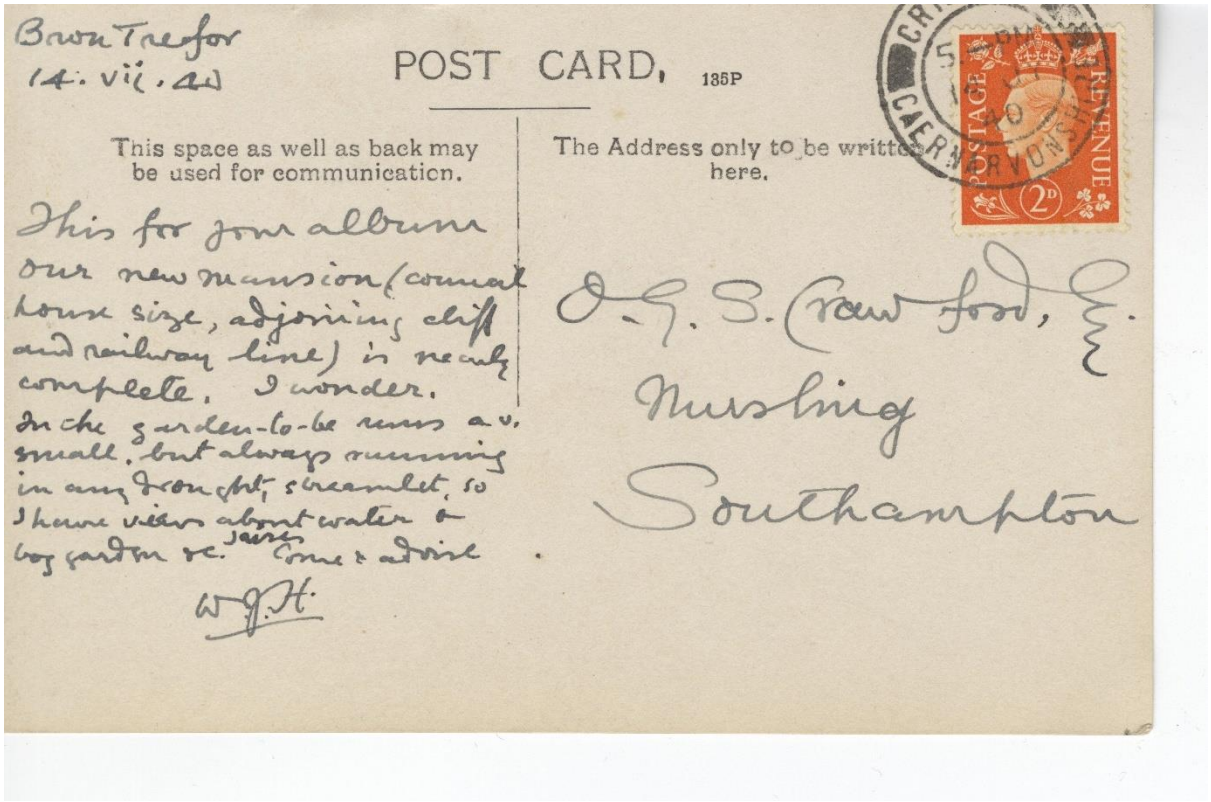


Figure 1.25 'For Your Album'. Print 19.34.

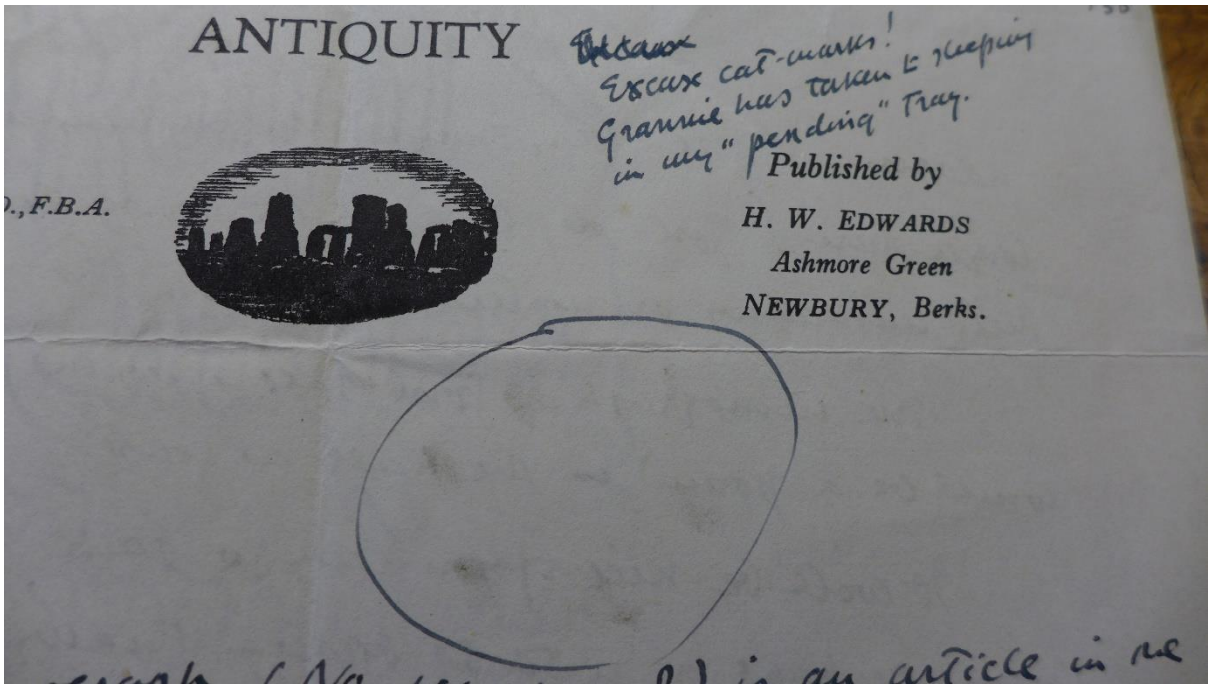


Figure 1.26 'Excuse cat-marks'! MS Crawford 74.138.

If these details speak to some of the incredibly varied uses to which Crawford put his photographic collections, and suggest the abundant presence of photography in all aspects of Crawford's life then Crawford's preparation of his archives for deposition within institutional repositories often represent a constriction of meaning. In Section 1.2 I outlined some of the more drastic measures which Crawford took to prepare his archives for deposition; his instructions to his executors to destroy documents and his own purging and editing of material before donating the bulk of his written papers to the Bodleian in 1952. While these acts took on a more pointed urgency in the 1950s, throughout his life Crawford selectively fed photographs and archival documents to institutional collections, as was the case with his gifting of a complete set of photographs of the 1939 Sutton Hoo excavation to the dig director Charles Phillips (See Chapter Two), his placement of series of plans with the Griffith Institute (See Chapter Three) and his donation of his First World War diary to the Bodleian Library in 1925 (See Chapter Four).

Though it is certainly illuminating to consider the line between conscious destruction and self-production which Crawford walked in his archival sorting, it would be a mistake to suggest that these processes were entirely under Crawford's control. Blind chance also affected what was retained and what was destroyed. Sometimes chance favours the researcher preserving what might otherwise be consigned to the waste basket. Crawford regularly wrote draft articles on scrap paper; by archiving documents of archaeological import, he would inadvertently preserve jotted grocery lists, Christmas card lists and reading lists (e.g., reverse of MS Crawford 91.1). At other times Crawford was struck by catastrophes of chance; on the 30th November 1940 the offices of the Ordnance Survey in Southampton were the target of a Second World War bombing raid, and vast swathes of Crawford's life's work were destroyed with the building. Hauser (2008) has written in depth about the psychological impact this had on Crawford, leaving him bitter and disillusioned. In his autobiography, Crawford wrote "let it suffice that something was saved from that holocaust" (1955:275). As a result, the papers and photographs that are preserved in his archives today are predominately those from the very early stages of his life, and those from the end. Yet, despite this loss the sheer volume of material which Crawford amassed during his lifetime physically resisted Crawford's attempts to impose order. In a note addressed to his executors Crawford described the existence of his account of the events leading up to the bombing, noting that he had temporarily misplaced it among his papers (MS Crawford 76.150).[94] An annotation added to the bottom of the document on 31st March 1958 by Crawford's executor Harold Edwards notes that the file was never found.

[94] "I have mislaid this account, but [it] will be found among my papers. It is a valuable irreplaceable document and should be carefully preserved, and it would be a good thing that several copies made and placed in different places" (MS Crawford 76.150).

Edwards' note on the bottom of this document marks the beginning of a new phase in the formation process of Crawford's archival assemblage. Edwards' handwriting appears several times in the archive; marking the last letter that he received from Crawford, and the last photograph which Crawford sent the Edwards family (Figure 1.27 & Figure 1.28). These traces are indicative not only of a second phase of sorting taking place relatively shortly after Crawford's death but also speak to a sense of personal loss inscribed into the archive. It was Edwards who in 1958—following Crawford's wishes—oversaw the dispersal of the archive with the remainder of Crawford's written papers moving to the custodianship of the Bodleian Library, while the photographic collection passed to the Ashmolean Museum's Lantern Slide Department.



Figure 1.27 The last photograph sent by Crawford. MS Crawford 76.162.

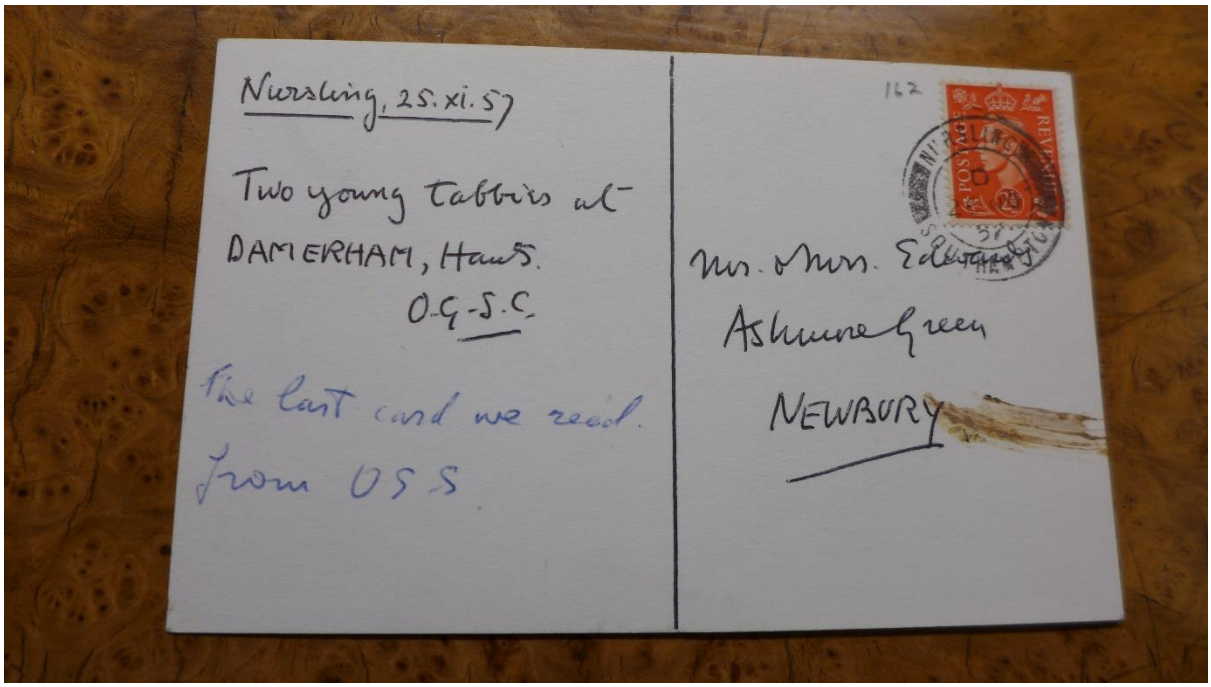


Figure 1.28 Edwards' note on the last photograph sent by Crawford. MS Crawford 76.162.

1.5.3 The Written Papers: Accumulation, Reformulation and Divestment

Unlike the far more openly turbulent processes at play in the management of Crawford's photographs which I will discuss shortly, the material traces of archival formation are far more subtle in the presentation of Crawford's written papers in the Bodleian Library—so much so that one might be forgiven for assuming that following their deposition the Crawford papers slipped into a kind of stasis. Though the remainder of Crawford's papers were donated to the Bodleian in 1958, it was not until 1978 that they were catalogued and made available for public access. The library has a very strict policy of refusing readers access to uncatalogued collections (Colin Harris, Pers.Comm).[95] So, for these intervening years, the papers were stored in the New Bodleian on Broad Street.[96] In 1978 the Keeper of Western Manuscripts, David Vaisey, began preparations for the publication of a complete catalogue of the Bodleian's holdings. For this great catalogue to be compiled, all previously untouched holdings had to be sorted, foliated and catalogued, and the task of cataloguing Crawford's papers fell to the archivist Mary Clapinson.[97]

There are no surviving records of the form which Crawford's papers took upon their deposition in the Bodleian Library, but Clapinson suggests that they likely arrived in a similar format to the box of papers which Crawford placed under seal until the year 2000 (Figure 1.29). These letters, predominately from the years 1900-1918, are still unsorted and uncatalogued, stored in the envelopes in which they were sent, and bound together with twine. Though the cataloguing process did not drastically change the materiality of individual letters or documents, it did entail disrupting the existing structuring of the collection—shifting away from the organisation of material according to Crawford's personal systems and bringing the material into line with the Bodleian's own institutional conventions designed to make material accessible to the widest possible array of researchers. The packaging and filing materials used to store or otherwise order the bulk of Crawford's collection were stripped away during the cataloguing process and were replaced with archival standard acid free blue folders (Figure 1.30) placed into uniform brown archival boxes (Figure 1.31).[98] Once this re-ordering was achieved, each document in the collection was then

[95] Colin Harris was the Superintendent of the Weston Manuscripts Reading Room in 2017.

[96] The New Bodleian was subsequently rebuilt and reopened as the Weston Library in 2015. It is a curious coincidence that the New Bodleian was built on the site of Acland House—the School of Geography building where Crawford worked as a junior demonstrator after graduating from Keble College in 1910 (Crawford 1955:65; MS Crawford 107.178).

[97] Clapinson joined the Bodleian's Department of Western Manuscripts in 1968 (Clapinson, Pers.Comm). She subsequently became the Keeper of Western Manuscripts, wrote a history of the Bodleian Library (Clapinson 2015).

[98] Riggs argues that "Conservation grade storage materials…are a source of professional authority and pride, as well as a sign of institutional prestige" (2018:254).

labelled in pencil with an individual document number and notices were placed inside the archival box strongly warning the reader that this order must be preserved (Figure 1.32).

Cataloguing is never a neutral act, and recent years have seen a growing critical awareness that the language used in the production of resources intended to act as finding aids do more than simply describe collections, but rather impose ideological narratives and classification systems that reflect institutional systems of power.[99] Crucially for the question of Crawford's legacy, the geographer Gillian Rose (2000) has demonstrated the role which catalogues and other finding aids play in guiding researcher's attention to specific aspects of collections, significantly shaping their understanding of the implications of the material.[100] The introduction to the catalogue of Crawford's papers prepared by Clapinson in 1978 highlights items of "particular interest" to the reader; it lists documents relating to Crawford's activities during the First and Second World Wars, his editorship of *Antiquity* and his trip to the USSR in 1932. It is notable that these three key themes identified by Clapinson in 1978 form the lynchpin of Hauser's (2008) biography of Crawford. When I ask Clapinson about the process behind this selection of items of interest she notes that it was a matter of "knowing the sort of things that people are using our collections for"—in this case responding to a growing number of historical studies of the World Wars in the 1970s (Clapinson, Pers.Comm). Clapinson also drew heavily upon Crawford's autobiography, as there was insufficient time to undertake additional research into Crawford's life and so the catalogue is a product both of historic circumstances of its creation and a direct reflection of the legacy of Crawford's self-representation in his autobiography. The production of the catalogue is an act of accumulation; the creation of a document that—from its inception in 1978 to its replacement with an online digital record in 2019—was a key access point for those looking to navigate the collection as they searched for Crawford.[101] These catalogue prescribed pathways through archival material become especially significant when the full scope of a collection is not readily apparent either because detailed granular records do not exist or because rules surrounding access limit the ways in which the archive can be encountered. In the Bodleian Library only a single box of Crawford's papers can be viewed at a time—in stark contrast to the access to Crawford's photographs provided by the Institute of Archaeology. Such systems—though designed with the security of the collection in mind—do much to limit the ability to easily draw together material from across the archival assemblage, or to deviate from categorisation of material imposed by the catalogue.

[99] E.g., Drabinski (2013), Dalal-Clayton and Rutherford (N.D), and Ortolja-Baird and Nyhan (2021).
[100] Dunley and Pugh (2021) liken researcher's uses of catalogues to navigational charts describing possible pathways through an archival collection.
[101] The online catalogue does not reproduce Clapinson's introduction and can be viewed here: https://archives.bodleian.ox.ac.uk/repositories/2/resources/8366

Consequently by 1978 the Crawford papers had been through three separate cycles of reformulation; first Crawford's editing of documents which did not fit with his self-curated legacy, then Edwards' purging of documents earmarked by Crawford to be burnt and his annotations of personally significant documents, and finally Clapinson's re-ordering of the papers and removal of what was then deemed associated domestic detritus. The significance of this re-ordering can be understood with reference to studies in object biographies which demonstrate that objects do not have to undergo material changes to undergo transformations of value, status or meaning (Kopytoff 1986, Appadurai 1986, Gosden & Marshall 1999, Gillings & Pollard 1999, Tsing 2013). Rehashing the material order and presentation of Crawford's papers is not a neutral practice but one that explicitly repositions the archive from a personal collection (with all the affective implications this entails) to a scholarly resource. However, it would be a mistake to assume that this institutional absorption does not carry with it personal traces. Even 40 years after these events each archival box still bears a small decorative label annotated with Clapinson's neat script and so much like Edwards's annotations Clapinson's presence too is absorbed into the material fabric of the archive (Figure 1.33).



Figure 1.29 Crawford's Uncatalogued Papers. Photograph by Martyn Barber (2015).

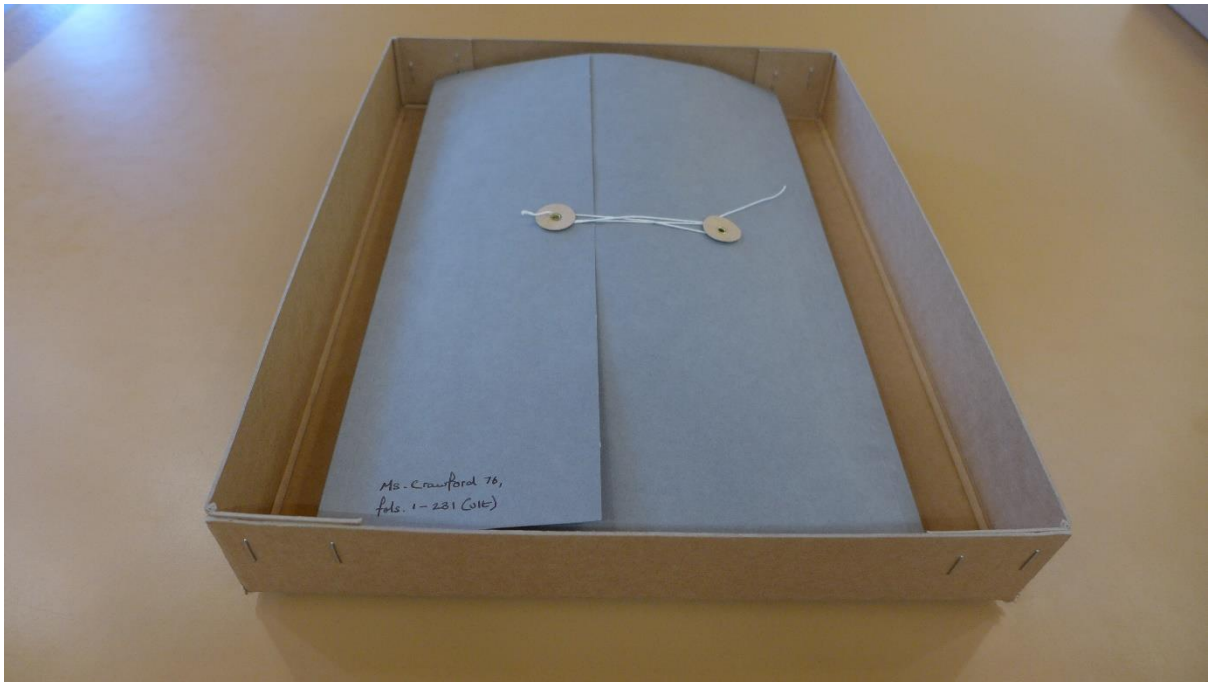


Figure 1.30 Re-boxing Crawford's papers I.



Figure 1.31 Re-boxing Crawford's papers II.



Figure 1.32 Enforcing the archival order.

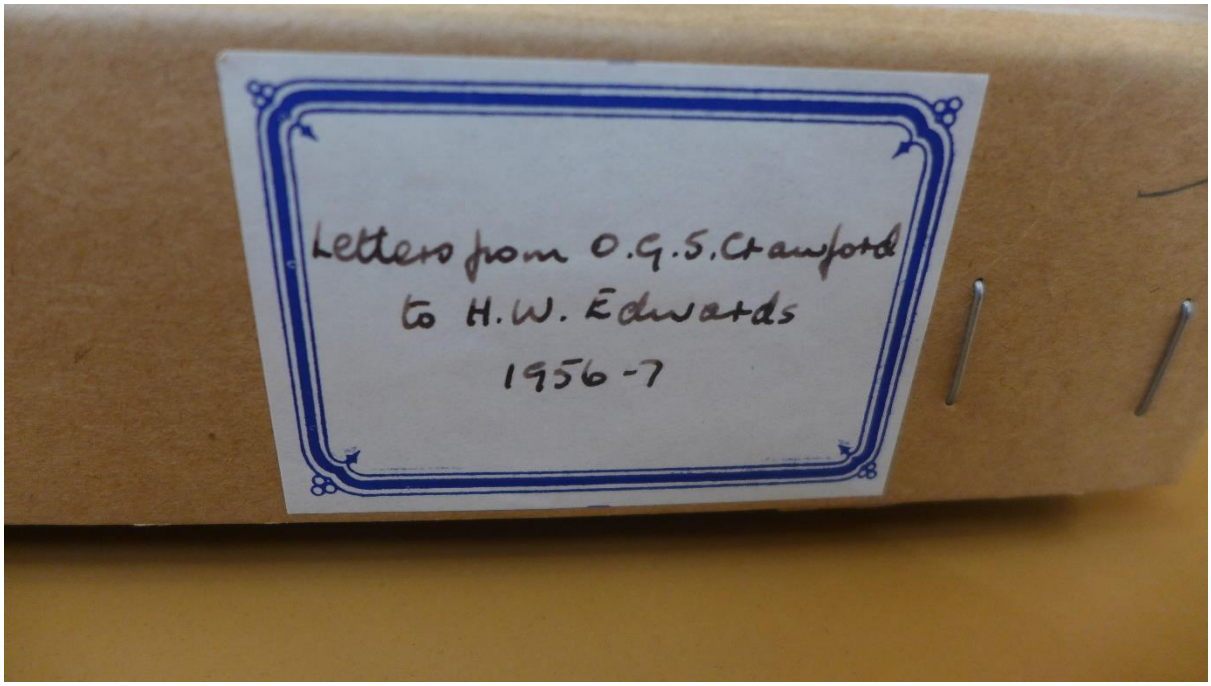


Figure 1.33 Mary Clapinson's handwriting.

1.5.4 The Photographs: Accumulation and Divestment

In the basement of the Institute of Archaeology, just a few doors down from the Ashmolean Museum, is the Archaeological Imaging Unit and Ian Cartwright's office. The first thing that strikes me about this room is the photographs—Ian is the Institute photographer and unofficial guardian of the Crawford photographic archive—and virtually every available wall is covered from floor to ceiling with photographic prints creating a veritable shrine to archaeological photography (Figure 1.34). The only wall not filled with photographs is occupied by the 50 rust red box files that currently house Crawford's photographic collection (Figure 1.35). In their study of personal archives, Kaye et al. identify a type of collection they refer to as a 'legacy archive'; "whose primary purpose [is] to allow visitors to make a visual sweep of the room in order to take in important aspects of the subject's personality and life's work" (2006:277). In stark contrast to being able to handle only a single box of papers at a time in the Bodleian Library, here one gets an unmediated visual sense of the scope of Crawford's photographic work. There is something in the uniformity of the boxes that—despite the variety of subjects signalled by the handwritten labels—presents the gathered contents as a magnum opus. But on display is not a single legacy, but a family tree; two posters (Figure 1.36) describe the history of photography at the Institute—how Ian trained under the tutelage of Bob Wilkins, who was himself trained by Crawford's colleague Mortimer Wheeler. This is just one example of the extent to which appeals to genealogical relationships to the 'Founding Fathers' of archaeology are still mobilised in the present as a means of articulating institutional prestige and archaeological identity.

Though in the present Crawford's photographs are tightly bound to the Institute, the collection arrived via a circuitous route. Shortly after Crawford's death, his photographs were donated to the Lantern Slide Department of the Ashmolean Museum in the form of 80 albums (Ashmolean Museum 1958). As Crawford's will makes no mention of his photographic collection, until recently it was assumed that that the decision to place the collection at the Ashmolean was made by Harold Edwards.[102] However, wrapped around a selection of loose duplicate prints in Box 50 (Figure 1.37) is a tattered envelope that bears a brief note from Crawford dated to 1957 reading "To go to Ashmolean with the albums" (Figure 1.38). The preservation of this note reinforces my conviction that some of the most vital clues to the history of the collection are preserved not in official correspondence or institutional documentation but are embedded in the materiality of the archive itself and preserved more through chance than by design. Consequently, there is no definitive account of Crawford's choice of the Ashmolean as the best repository for his photographs, though I

[102] See notes accumulated during the investigation into the copyright status of Crawford's archive available from the Institute of Archaeology.

can speculate as to Crawford's intentions. As early as 1900 the Ashmolean Museum had acquired significant collections of lantern slides intended for use by Oxford scholars in illustrating lectures (Harlan 2005:207). The slide collection was compiled from the amalgamated personal archives of archaeologists affiliated with the museum or the wider university research community such as Percy Gardner and John Linton Myers, in its early years the selection tended to reflect the dominant emphasis on the study of the classical world, but by the late 1930s the collection had acquired a distinctive focus on British and European archaeology (Harlan 2005:204-208). As I explore in Chapter Three, Crawford frequently sought to locate his own archival material alongside complementary collections and the archives of the archaeologists whom he held in high regard. Crawford's feelings towards the significance of these deliberately measured acts of deposition can be deduced from a note penned in *Antiquity* following the death of the aerial photographer Major George Allen; "It is a consolation to think that his work will live after him in his large collection of negatives (bequeathed to the Ashmolean Museum, Oxford) which will provide both inspiration and rich veins of ore for the archaeologists of the new world that must come someday" (1941:89).

Unlike the long wait for cataloguing suffered by Crawford's written papers, Crawford's photographic collection was almost immediately processed by Ashmolean staff (Figure 1.39). Yet, the photographic archive's sojourn at the Ashmolean was to be brief. On 1st November 1962 the Keeper of the Ashmolean R.W. Hamilton wrote to Professor Christopher Hawkes of the newly founded Institute of Archaeology in Oxford: "I am writing to invite the Archaeological Institute to accept the custody and permanent transfer of those parts of the lantern slide collection which appertains to Roman Provincial and European Archaeology, and of the Crawford collection of photographs" (Unnumbered Letter. O.G.S. Crawford Photographic Archive).[103] The casualness with which these collections were offered for transfer speaks to the liminal position which the photographs held within the Ashmolean Museum; viewed as reference materials to look *through* to the archaeological sites or artefacts they depicted rather than being understood as objects of historical value in their own right (cf. Shanks 1997; E. Edwards 2016c). Similar movements of photographs between institutions are referenced in Crawford's papers, as in one letter sent to Crawford from a contact at the British Museum, which states that a transfer of negatives to the London Institute of Archaeology is possible given that they are "study-material and not antiquities" (MS Crawford 26.36).[104]

Moreover, it is notable that in Hamilton's letter Crawford's albums appear almost as an afterthought. This detail chimes with an apocryphal mythology which has developed around the

[103] Notably the Ashmolean retained the flight board used by Crawford during his research for *Wessex from the Air* (MacGregor 2000).
[104] See Crawford (1955:199) for a fuller account of the transfer.

circumstances surrounding the movement of the collection. While conducting oral history interviews in the Institute I am told that Crawford's albums were not officially transferred to the Institute but rather thrown into a roadside skip. It was only by the confluence of fate that the Institute photographer Bob Wilkins happened to be passing and recognised the significance of the collection, salvaging the albums for the Institute. The letter transferring ownership is subsequently understood as a concession made after this incident transpired. Nor is this the only event in the formation of the photographic archive which has left an imprint in the collective memory of the Institute. A second aspect of the archive's mythology is actively reworked and retold to me on multiple occasions; informants speak of an unnamed woman—variously described as a graduate student, a small-finds specialist, an archivist, a receptionist or a slide technician—who at some point between the 1970s and 1980s was responsible for 'ripping' Crawford's photographs from the 80 albums and re-ordering them into the 50 box files which hold the archive in the present.

Barry Cunliffe recalls that a similar re-boxing project on the archives of Paul Jacobsthal was run by the Institute's slide archivist (Cunliffe, Pers.Comm). This connection is borne out materially, with both Crawford's photographs and the Jacobsthal collection housed in identical red box files (Figure 1.40). Upon close examination of the archival boxes holding Crawford's photographs, it is possible to detect on Box 18 the faint outline of the words "Jacobsthal Pottery" (Figure 1.41) implying that boxes originally used to house the Jacobsthal collection were repurposed for Crawford's photographs. It is only through an archaeological focus on the materiality of the archive—looking not only at the collection but the material accoutrements that surround it—which reveals these connections across archival assemblages. Given the transfer of Crawford's archive came hand in hand—at least in official documentation—with a larger collection of lantern slides it seems plausible that Crawford's photographs would have come to the attention of a slide archivist. But turning to the material residues left by this event, it seems that this re-ordering process was perhaps not quite as violent as commonly imagined. [105] Condensing the collection from 80 albums to 50 boxes would have entailed bringing new combinations of prints together. Yet the current arrangement of material within the box files maintains the geographical and typological divisions which Hauser ascribes to Crawford's own classificatory system (2008:147). As discussed above, even during Crawford's lifetime his photographs were not confined to a cemented order. Crawford's albums were explicitly designed to allow for the flexible accumulation and juxtaposition of material and so the recombination of prints is far from a unique occurrence in the archive's formation process.

[105] It was this act that led to Hauser's description of the photographic archive as "scarred by history" (2008: xiv). Hauser introduces her account of the archive's re-sorting with the phrase "once upon a time" which seems to nod to the mythological status this event holds within the Institute.

Moreover, there is no material evidence on the print mounts to suggest that they were forcibly ripped or torn, rather the existence of the punch holes implies that Crawford's 'albums' were loosely bound together and thus easily disassembled.

However, of interest here is not just the truth of this story, but the fact that it exists at all. That the mystery woman's name and identity cannot be fully recalled is a striking inditement of the extent to which archival labour has been overlooked in archaeology, and the erasure of contributions of women to archaeology that this attitude entailed. Moreover, both this tale and the story of the skip demonstrate that material events in the archival formation process can be accompanied by far more intangible accumulations. The archive has accumulated its own mythology; entangling a whole cast of actors who become complicit in its story. Ian's role –and perhaps my own as well—is not only that of custodian of the photographic prints; we are keepers and tellers of these stories too, and in the telling of these stories the archive is continually reinvigorated (cf. Schwartz and Cook 2002:1).[106]

Even after their re-boxing Crawford's photographs attained—at best—a moderately stable order. Loose photographic prints are particularly susceptible to being re-ordered, and the collapsing of research site and storage space into a single room, combined with the eclectic nature of the collection invites—and at times necessitates—a very different way of navigating the archive. Rather than systematically working through each box based on a catalogue or even guided by the labels on the box files, there is a temptation to rummage, to rifle, to dip in and out of each file. Given Crawford's own cross-referencing of prints across his collection, there is a certain poignancy in this manner of investigating the photographic archive. These pathways through the archive leave their own material traces. When Hauser worked on the archive in the early 2000s, she added pencil numbers on the top right-hand side of each cardboard mount referencing both the number of the box in which each print was found, and its relative position within the box.[107] While this numbering system captures a snapshot of the structure of the archive in the early 2000s, it has not proved as effective as the Bodleian's measures in discouraging further acts of rearrangement. It is not uncommon to find multiple prints out of sequence, for example Box 36 begins with not with Print 36.1 but with Print 36.46, and then runs to 36.99, where Print 36.40 is interjected into the pile of pages. Several boxes contain prints which have been replaced back-to-front or upside down. Each of these examples are indicative of the ongoing use of the collection within the Institute—with archaeologists hunting through the boxes in search of individual images while paying little attention to preserving the context of the prints. Nor have the contents of the collection remained settled. The

[106] See E. Edwards (2006) on the relationship between photography and oral history.
[107] As an example, 'Print 1.3' would indicate the third print found in Box 1.

most recent act of divestment took place in 2016, when a Fire Safety Inspector visiting the Institute declared that Crawford's negatives posed enough of a fire hazard to invalidate the Institute's Insurance policy. In a set of circumstances that parallel the story of the photographic albums being saved from the skip, Ian Cartwright had to aggressively negotiate for the negatives to be transferred to a climate-controlled storage facility at Osney One rather than being immediately disposed of. With the negatives now in deep freeze access to them is severely restricted, so for the time being the physical volatility of the negatives has acted to constrain their possible future trajectories.

It is on this note that I conclude my overview of the archival formation process to date. As even this brief overview has demonstrated the formation of an archaeological archive is process characterised by movement. During Crawford's lifetime his photographic collection was not settled or stable but constantly in flux; photographs were circulated, argued over, interpreted and reinterpreted, juxtaposed with other photographs, annotated and then reinscribed with new meanings. Crawford's archival practices were not only concerned with archiving archaeology but were exercises in auto-biography—actively producing a vision of Crawford through the accumulation, curation and selective divestment of archival material. Yet Crawford did not exert complete control over this process; a spectrum of events from bombing raids in acts of global warfare to the sleeping habits of his cats have each left their marks on the collection. Nor, did this motion cease at the moment of Crawford's death. I have sketched the dissemination of sub-sections of the archival assemblage across institutions, and noted the multiple projects of accumulation, divestment and reformulation which accompanied this transition, each of which have left their own distinct traces on the archive and subsequently have acted to reframe the collection and Crawford's legacy.

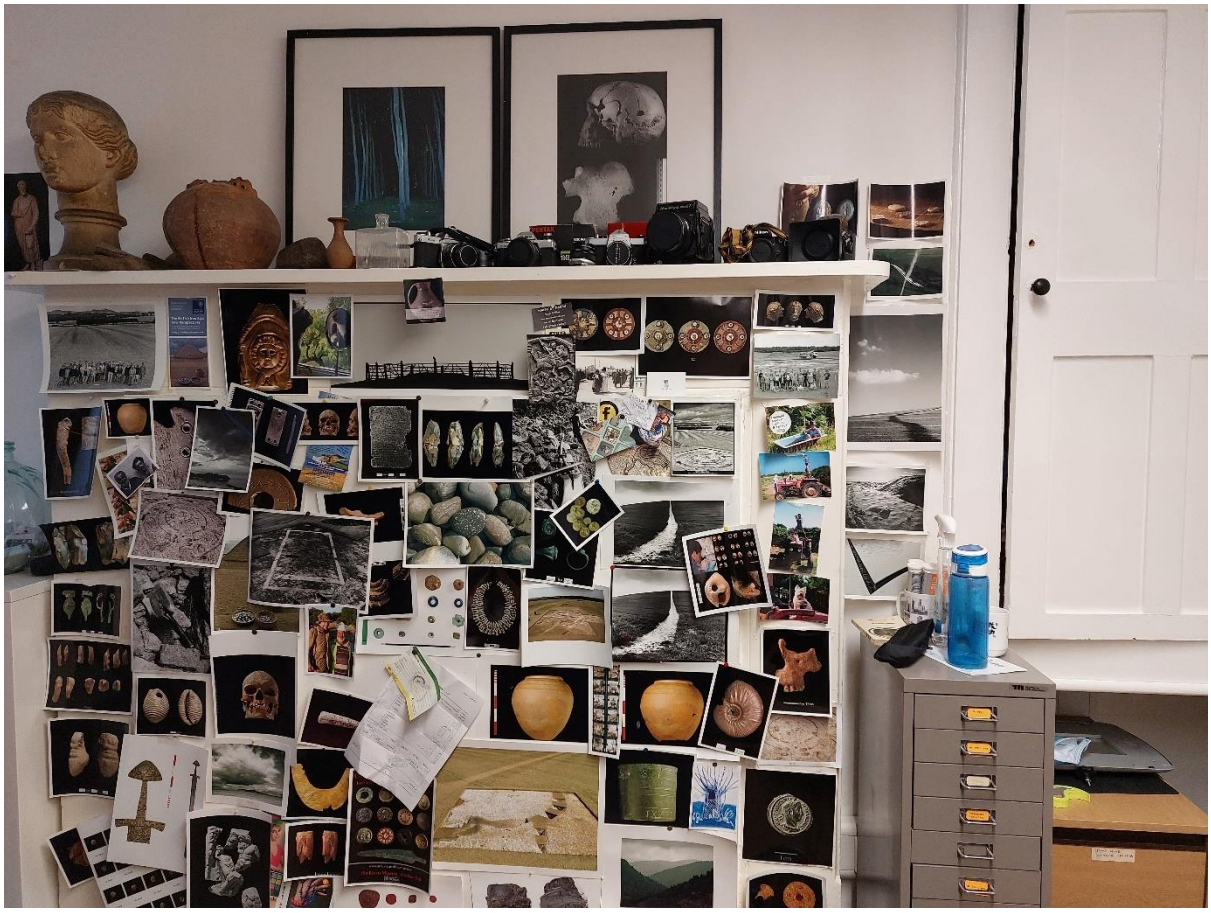


Figure 1.34 Photographs in the Archaeological Imaging Unit.

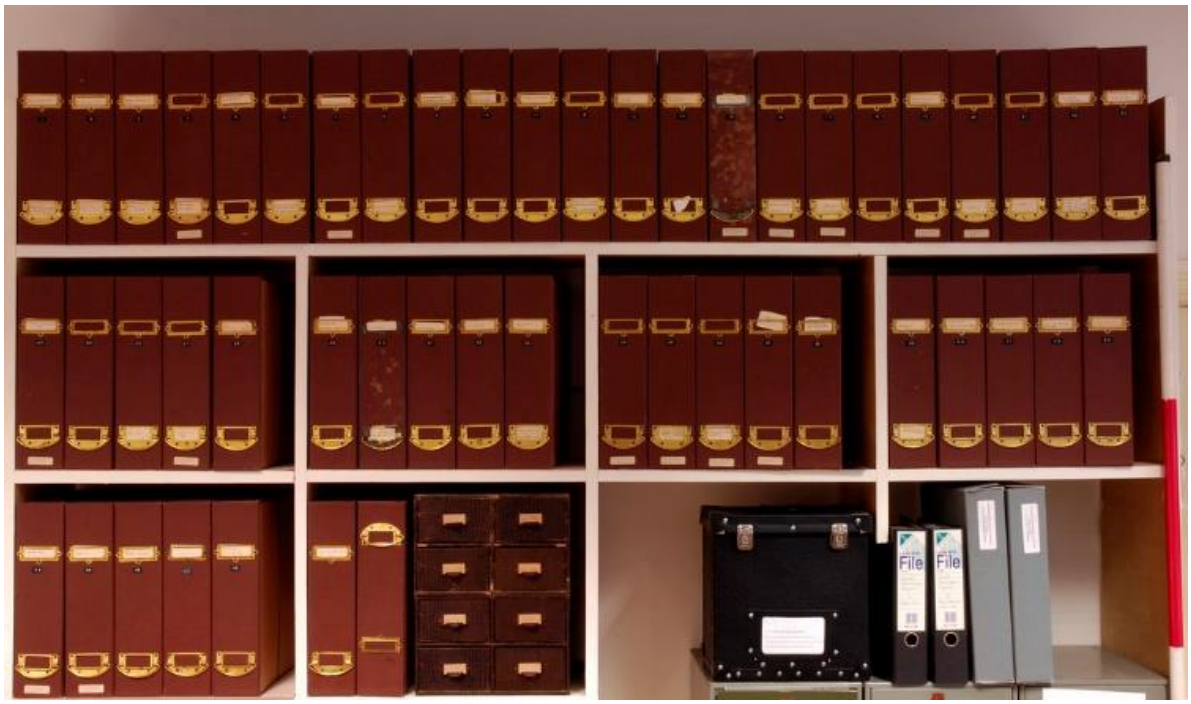


Figure 1.35 The O.G.S. Crawford Photographic Archive. Photograph by Ian Cartwright.

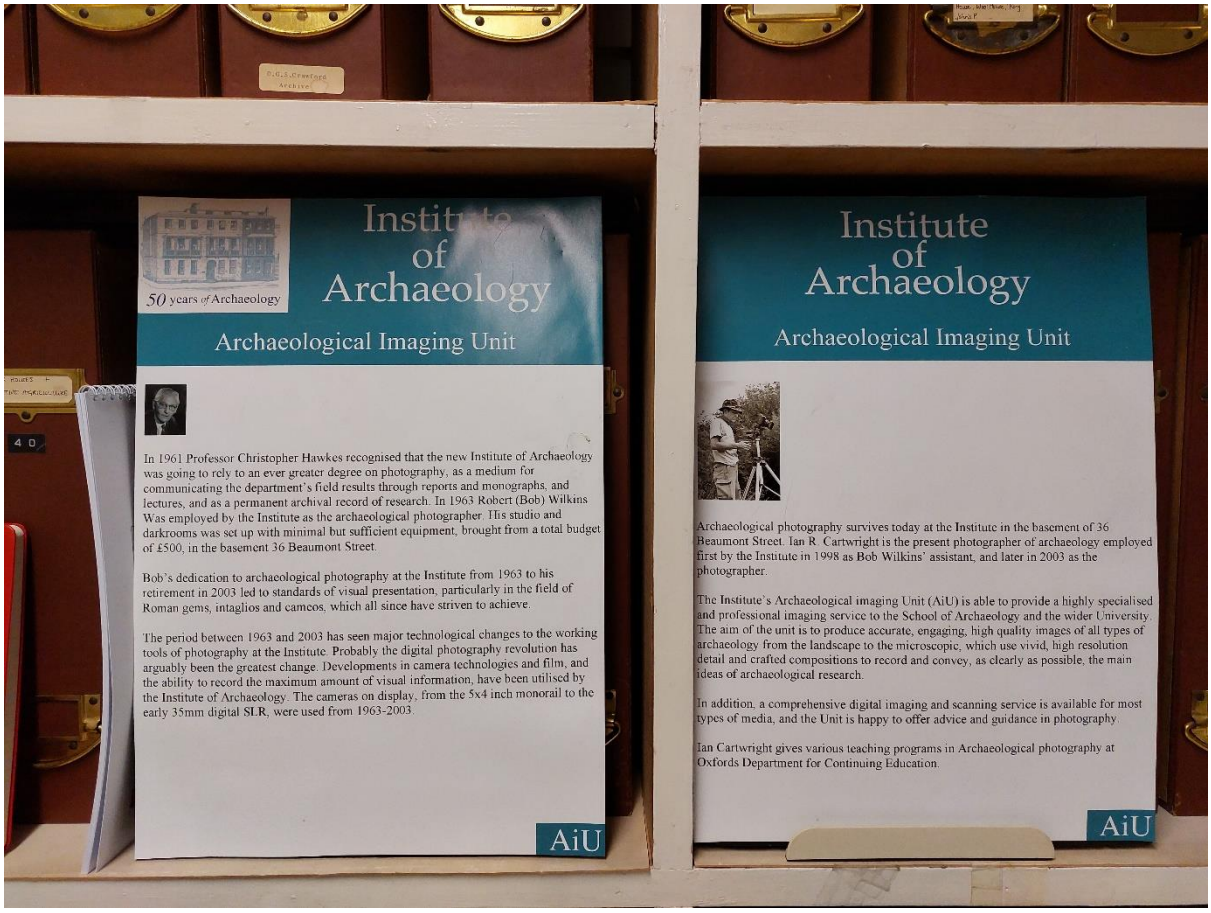


Figure 1.36 Academic genealogies on display.



Figure 1.37 Box 50.

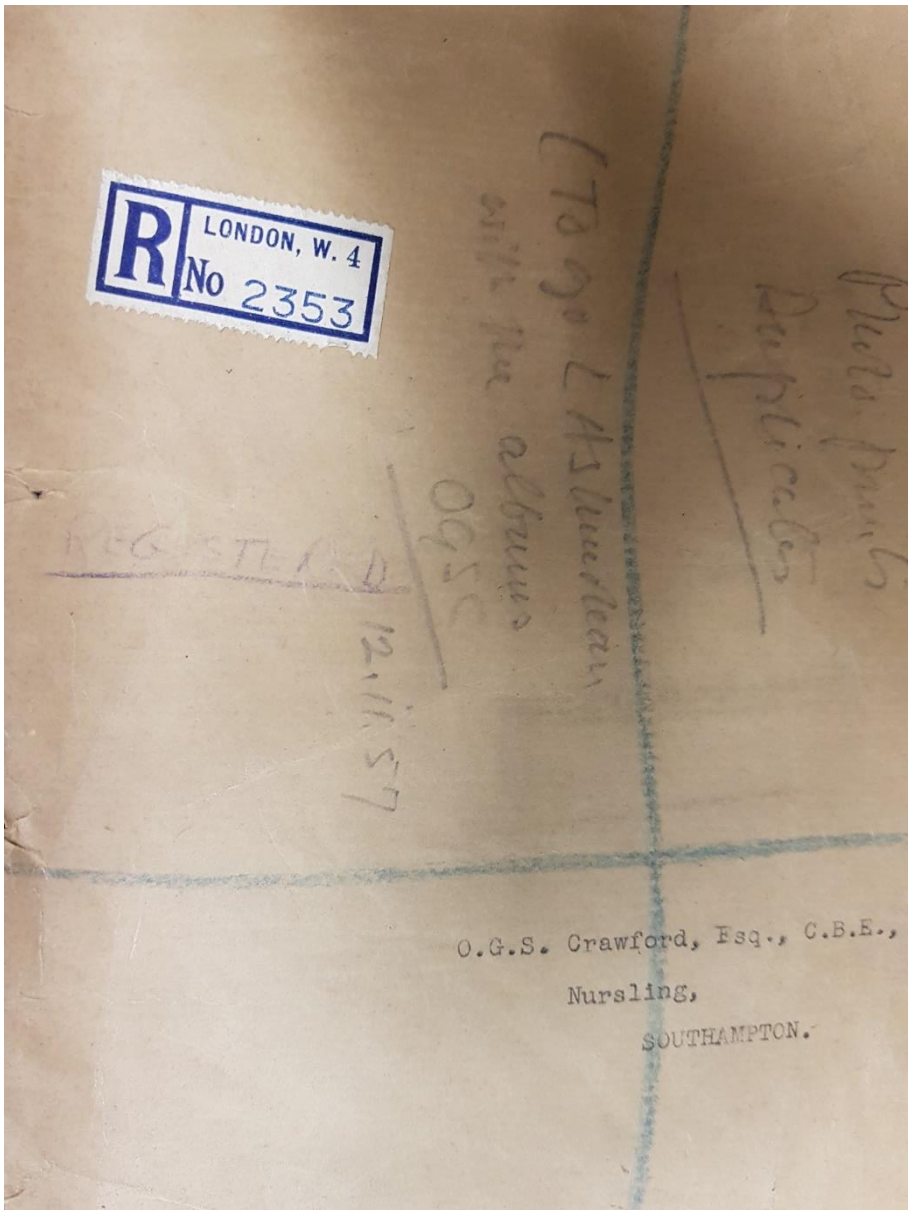


Figure 1.38 'To go to the Ashmolean with the albums'. Envelope in Box 50.

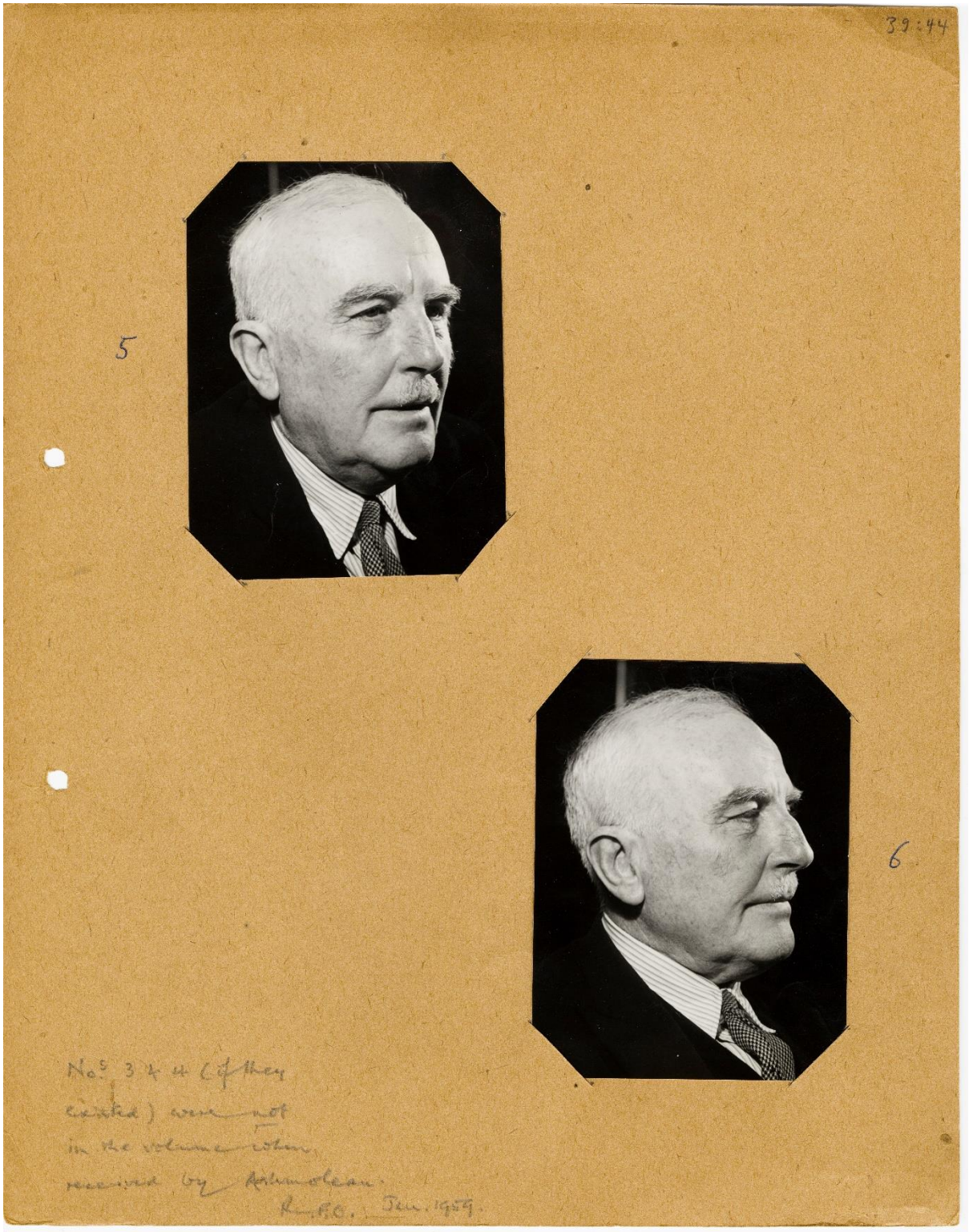


Figure 1.39 Note from R.F.O at the Ashmolean. Print 39.44.



Figure 1.40 The Jacobsthal Archive. Fig.2 in Hitchcock (2020).



Figure 1.41 'Jacobsthal' on Box 18 of the Crawford Archive.

1.6 Thesis Outline

Though the project of exploring the formation of Crawford's archival assemblage underpins the whole thesis, the following chapters take an hourglass structure; each chapter reflecting on the formation process on a different spatial and temporal scale. Moreover, each chapter focuses on an aspect of Crawford's terrestrial photographic practice that has previously gone overlooked.

Chapter Two returns to the question of the 'absence' of archaeologists from the archaeological archive and re-examines the conventions of the 'visual grammar' of archaeological photography (Section 1.3.2). Throughout this chapter I restrict my analysis to a collection of 124 photographs, currently housed in Box Two of the photographic archive, taken by Crawford in July 1939 during the excavation of the Sutton Hoo Ship Burial. Rather than assuming that adherence to the visual conventions of archaeological photography acts to erase all traces of archaeologists from the records of excavation, I ask if it is possible instead to work backwards from these conventions to models of behaviour which archaeologists adopted while conducting excavations. At the same time, I argue that while the content of Crawford's individual photographs might outwardly seem to demonstrate the detached objective standards of recording described in Section 1.3.2, by turning to the serial, temporal and spatial relationships between his photographs it is possible to recreate the rhythms of Crawford's photographic practice on an exceptionally detailed temporal scale—these rhythms reveal that far from dispassionate documentation Crawford's photographic practice was fuelled by passionate excitement. I then address the critique that archaeological photography is a socially isolating practice, making the case that the presence of a camera—or rather several cameras—at the excavation fundamentally affected the ways which archaeologists behaved. As a photographer, far from adopting a position of detached observation, Crawford was an active participant in the social landscape of the excavation, and his situated social position manifests in the material form of this sub-collection of the archive. Finally, I follow the trail of a duplicate set of Crawford's photographs of the excavation into the British Museum (cf. Section 1.4.2). Reflecting on the material history of this second set of prints I demonstrate how the circumstances of this archival encounter, and the way the collection has historically been managed presents vastly different vision of archaeological photography.

In Chapter Three I address Hauser's critique that archaeological photography lacks "temporal depth" (Hauser 2007:58; cf. Section 1.3.1). Here I turn my attention to 500 photographs spread across five boxes of the archive taken by Crawford in the Middle Nile region of Sudan in the years between 1950 and 1952. Through this larger sub-collection of photographs, I explore Crawford's movements as a photographer over the course of several years, and over journeys of many thousands of miles. In expanding the temporal and spatial scope of my analysis I draw on theories of duration, return

and the multi-temporal potential of photography to demonstrate the temporal complexity of Crawford's photographic work (cf. Section 1.4.1). I note examples of Crawford using photography to negotiate his own memories of Sudan from the year 1913, but also his attempts to materially manifest 'genealogical' connections to—and quite literally follow in the footsteps of—an earlier generation of European and American archaeologists and 'explorers' (cf. Section 1.2). To do so is to confront the deeply entangled relationship between archaeological photography and colonial violence, and the openly racist mindset which underscored much of Crawford's photographic practice (cf. Section 1.3.3). I make the case that the power dynamics of archaeological photography are best spoken of not as enacted from a distance—as in the metaphor of the aerial view—but as manifesting in the intensely personal and visceral politics of bodily control. At the same time, I demonstrate the deeply personal significance that these acts of return held for Crawford, and note examples of how these personal projects of 'return' manifest in the formation of the archive. I conclude by explicitly contrasting Crawford's enthusiastic attempts to cement his position in the field of Sudanese archaeology with his far more reluctant response to his aerial legacy.

Finally in Chapter Four I return to the question of Crawford's aerial legacy (cf. Section 1.2) and the extent to which the wider aerial metaphor has dominated perceptions of Crawford's photographic practice and archive (cf. Section 1.3). Here I work across the totality of Crawford's archival collection, and explore examples of his photographic practice throughout his lifetime. I begin by challenging the assumption that the aerial view provides totalising certainty, indicating previous studies which demonstrate the partial, subjective and affective aspects of aerial survey. Then I examine the origin myth of Crawford's training as an aerial archaeologist as an RFC observer during the First World War, contrasting this with examples of Crawford's terrestrial photographic practice and formative training as a field archaeologist to argue that much of the impetus for Crawford's aerial work developed out of these terrestrial experiences, and that hidden in Crawford's terrestrial fieldwork are a series of previously overlooked clues that can cast new light on Crawford's aerial work. Finally, I explore the pathways which a previous generation of researchers have taken through the archive in the hunt for aerial photographs. I demonstrate that the material arrangement of the archive in the present (cf. 1.5.4) has resisted attempts to draw together the view from the ground and the view from the sky. In adopting an assemblage approach (cf.1.4.2) and seeking out these connections across the archival assemblage, the view from the ground and the view from the sky begin to fold into each other, and so the view from above may come to be understood through a photograph of a pair of feet.

2 On 'Suffolk Soil'

2.1 An absent-presence? Crawford at Sutton Hoo

In the centre of the image a jumbled muddle of fabric lies in a roughly circular arrangement. Fragments of metal are spread around its circumference, textures and shades of grey fight for attention. The soil flakes apart revealing glimpses of buried things. This central arrangement is clearly intended to be the focus of the photograph, yet when looking at Print 2.114 (Figure 2.1) my attention is drawn to a conspicuous—and familiar—pair of shoes that have crept into the bottom edge of the frame. The feet, placed about shoulder width apart, sit awkwardly on the soil. A shadow underneath each sole suggests the wearer was raising the front of his feet slightly, perhaps to counter balance whilst leaning forward. Is this a deliberate step into the sightlines of the camera? Or is the intrusion unintentional? Can this poorly executed attempt at an archaeological record shot provide new avenues for thinking about the practice of archaeological photography?

Print 2.114 is from a series of 137 photographs taken by Crawford over the course of five days in July 1939, during the excavation of the Sutton Hoo ship burial. In the present it is one of 124 prints stored in Box Two of the photographic archive.[118] Box Two is something of an oddity in the archive. For a start, Crawford did not possess a reputation for excavation. He dabbled in his younger years; spending a season in Sudan shortly before the First World War (See Chapter Three), leading excavations at the Inkpen and Roundwood Barrows and using excavation as proof of concept in the early days of aerial archaeology (Barber 2011, 2016). Though Stout (2008) has argued that Crawford played a central role in the shift from antiquarian armchair research to 'Dirt' archaeology, the dirt on Crawford's boots came from field archaeology not excavation (Hauser 2008:70). The prints therefore offer the opportunity to explore a relatively unknown facet of Crawford's archaeological practice. Moreover, in an almost totally unique occurrence in the archive the 124 photographs of the Sutton Hoo excavation are arranged in chronological order; from negative 315/8, taken at 10:15 am on 25th July 1939 to 326/12 taken late on the afternoon of 29 July 1939.[119]

In this chapter I return to the question of the 'absence' of archaeologists from the archaeological archive and I re-examine the conventions of the 'visual grammar' of archaeological photography discussed in Section 1.3.2. In particular I return to the framing of archaeological photography as premised on detached scientific observation, and Bohrer's assertion that archaeological photography is "cold-bloodedly objective: the photographer's human presence, and artists'

[118] Crawford's negative register lists a total of 137 exposures, but only 124 prints appear in Box Two.
[119] This chronological arrangement is a recent development which disrupts the numbering system put in place by Kitty Hauser in the early 2000s.

tendency to subjectivity held in check by his mechanical apparatus" (Bohrer 2011:7). Key here is the recognition that archaeology possesses a 'visual grammar' but rather than assuming—as Bohrer does—that such conventions act to erase all presence of the photographer I argue instead that is possible to work backwards from these conventions to models of behaviour which archaeologists adopted while conducting excavations. Moreover, I suggest that while publicly Crawford might have expressed his support for the standards of archaeology's 'visual grammar' his actual photographic practice was far more unruly. If the presence of the photographer cannot be found in archaeological photographs, I would argue this is more a reflection of strategies of looking at photographs, the questions that are brought to them, and the ways in which photographs are manipulated within institutional and archival contexts, than any inherent absence in the photographs themselves.

The question of the absence or presence of archaeologists in the records they create is especially pertinent given that Crawford's role is widely neglected in accounts of the Sutton Hoo excavation. In the novelisation of the 1939 excavation *The Dig* (2007) Crawford is an absent-presence; due to arrive at any minute but never actually materialising.[120] Crawford's role is not only minimized in fiction but in historical accounts; overviews of Crawford's life reduce the experience to a matter of sentences at best (e.g., Bowden 2001; Hauser 2008) and his presence is similarly scant in more recent investigations into the social history of the excavation (e.g., Markham 2002). As a photographer Crawford sits at a particular intersection of visibility and invisibility; his work with a camera produced some of the most widely circulated views of the ship burial; even in the present day his photographs are displayed alongside the finds at the British Museum—though Crawford is not credited as the photographer. Crawford's position can be framed with reference to a much broader conversation emerging within archaeology on the epistemic politics of archaeological archives and the role these politics have played in making specific forms of archaeological labour visible while obscuring others (Hodgett 2019; cf. McFadyen et al. 1997; Shepherd 2003; Guha 2003, 2010; Baird 2011, 2017, 2019; Riggs 2017, 2019, Prtak 2019, McFadyen and D. Hicks 2019).

Crawford's photographs are often looked through as evidence of the burial or—more recently—as evidence of the work of the excavators, but they are never looked at as traces of Crawford's personal and situated presence (cf. Shanks 1997; Baird 2011, 2019). Moreover—as I discuss in Section 2.5—a host of confusion has plagued the official archives of the excavation at the British Museum leading to widespread uncertainty over the extent and scope of Crawford's photographic record. In 1975 Bruce-Mitford wrote that Crawford spent "three working days at the site" and took a

[120]I borrow the term 'absent-presence' from Tilley and Cameron-Daum (2017:2). In the 2021 Netflix film of the same name Crawford's presence is completely erased, despite the fact that many of his photographs are replicated in the film and form the basis of the film's aesthetic design.

total of 64 photographs (1975: 137). Following the discovery of a cache of photographs of the excavation taken by visiting schoolteachers Mercie Lack and Barbara Wagstaff, newspapers reported that "prior to these photos emerging there were just 29 known pictures of the excavation" (The Telegraph 2011).[121]

It is fitting therefore that in clearing up these misconceptions it is possible to simultaneously reveal Crawford's presence. In the introduction I argued that researchers often turn to what Riggs' terms the "haptic details" (2017:341) contained within individual photographic images to reveal hidden histories. Here I argue that a holistic analysis of the relationships between photographs and archival collections can achieve similar aims. Drawing on Morton's (2009) 'Whole Archive Approach' I adapted a plan of the burial chamber at Sutton Hoo; by cross-referencing Crawford's photographs I mapped the structure of the trench surrounding the burial chamber, and using this it was possible to extrapolate the approximate position Crawford would have been in to take each photograph (Figure 2.2). I then combined this plan with the detailed notes left in Crawford's negative register and on the prints in Box Two to assign each photograph not only a sequential and spatial, but also a temporal relationship to its fellows.[122] It is out of these spatial, temporal and sequential relationships between the photographs that a vision of Crawford's photography as a vital and dynamic practice begins to emerge. At the same time excavating these relationships highlights the extent to which an archaeology of archives can resolve the disjuncture between the "coarse temporal resolution" with which archaeology is used to working (Lucas 2010a:351) and the "human scale" which Bohrer claims is so lacking from archaeological photography (2011:85; cf. Section 1.3.1). Working with the photographs in Box Two and the information contained in Crawford's negative register, the archaeology of a single event on a temporal scale of minutes and seconds becomes feasible.

[121] Lack and Wagstaff arrived in August after the burial chamber had been cleared and were to produce an extensive collection of photographs of the final stages of the excavation of the ship itself, which has recently been digitised. As Lack and Wagstaff's time at Sutton Hoo did not overlap with Crawford's, this collection unfortunately falls outside the scope of this chapter.

[122] These records are also supplemented with the extraordinarily rich cluster of reference materials assembled by Bruce-Mitford (1975) and Martin Carver. Available at: http://archaeologydataservice.ac.uk/archives/view/suttonhoo_var_2004/

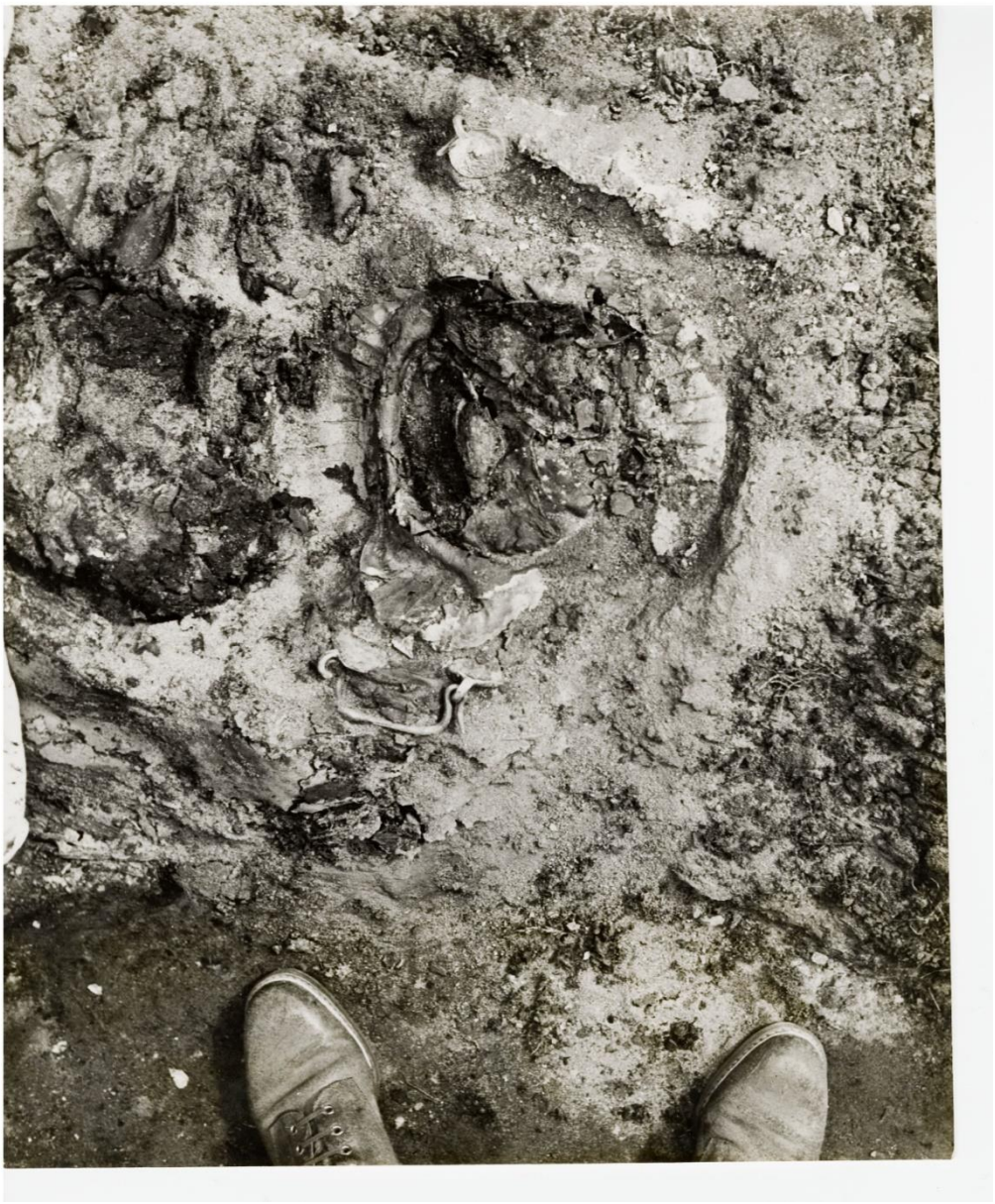


Figure 2.1 Crawford's feet at Sutton Hoo. Print 2.114.

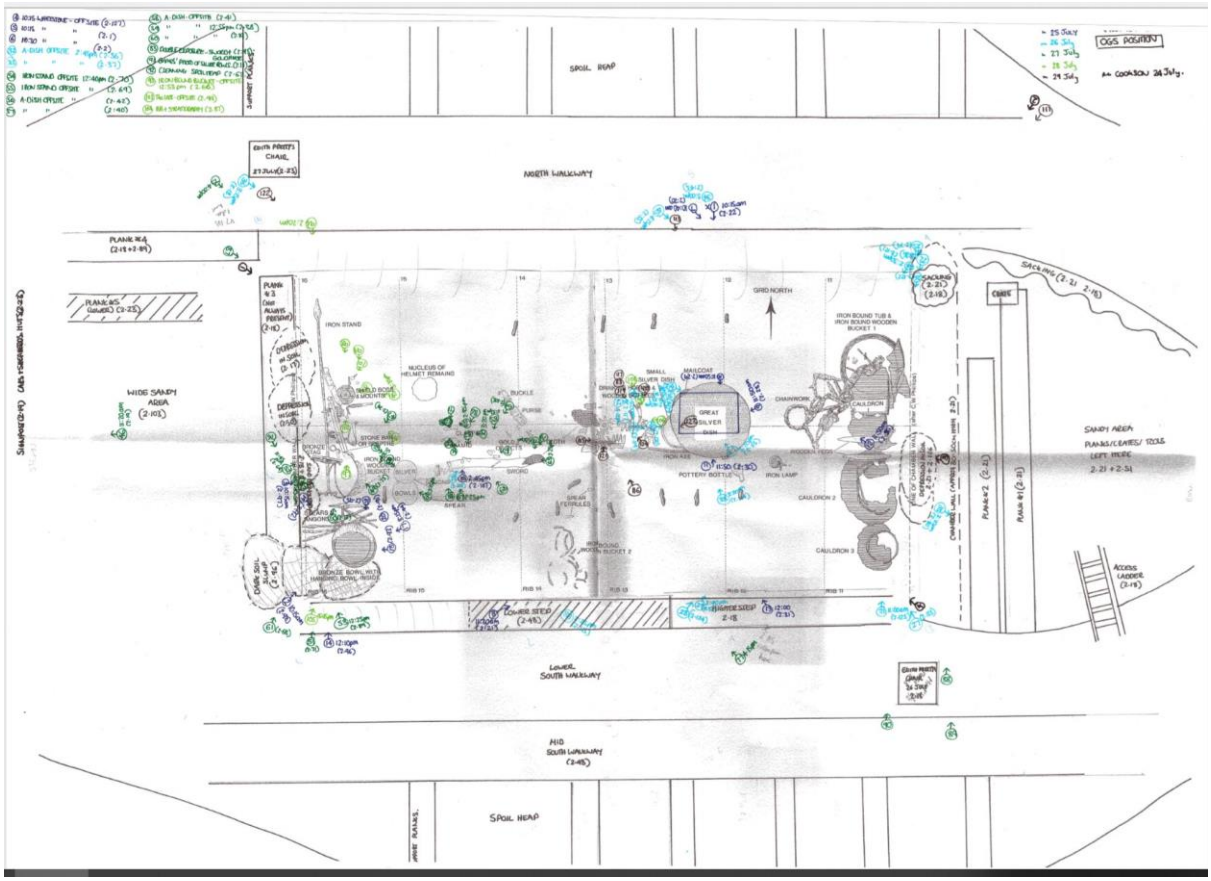


Figure 2.2 Approximate vantage points used by Crawford. Diagram by the author adapted from Care-Evans (1994).

The first section of this chapter combines the 'haptic details' of individual images with an awareness of the spatial, temporal and sequential relationships between the photographs in Box 2 to bring to the foreground traces of Crawford's presence as a photographer at Sutton Hoo. Sections 2.3 and 2.4 continue the process of foregrounding presence; examining how seemingly uninhabited views of trenches might be understood as expressions of the expertise of the excavators and then how the excavated space itself might exert its own presence upon the archaeologists. Having bought each of these traces of presence to the fore, Section 2.5 explores the ongoing circulation of Crawford's photographs of the excavation and argues that the institutional practices of working with these prints have acted to obscure each form of presence listed above.

2.2 Walking the Archaeological Walk [124]

Crawford arrived at Sutton Hoo—accompanied by his colleague from the Ordnance Survey William Frances Grimes—on the evening of 24th July 1939. The excavation had begun several months previously, but with the threat of war hanging over Europe it was now frantically racing to a crescendo. The circumstances under which the excavation had come to pass were described by Crawford as "curious" (1955:272). In 1938, local magistrate Edith May Pretty brokered an enquiry with the Ipswich Museum about the possibility of excavating the large mounds on her 400 acre estate (Phillips 1940:8).[125] Her contacts at the museum—President James Reid Moir and Director Guy Maynard—recommended the services of the local self-taught archaeologist Basil Brown.[126] Brown arrived at Sutton Hoo on Monday 20th June 1938, in the following weeks he opened several mounds and though the results of his excavations were not especially ground-breaking, he found enough to suggest that the mounds had once contained burial deposits, and it was agreed that one further season of excavation would be pursued in 1939 (Phillips 1940:8).[127]

On 8th May 1939 Brown returned to Sutton Hoo, assisted by William Spooner and John Jacobs, Pretty's gamekeeper and gardener. Brown focused his attention upon the largest of the mounds on the property and was rewarded just three days later when Spooner uncovered the first sign that something unusual was buried beneath the mound; a ship rivet bedded in the soil (Brown 1939b:156).[128] From this moment onwards Brown took over the painstaking role of "creeping along rivet by rivet", sometimes working with only his hands to feel out the shape of the ship; the task –he noted in his diary—was far too delicate to be left to Spooner and Jacobs (Brown 1939c:158). As Brown's excavation continued into June, it became obvious that something extraordinary was emerging from the sands. By June 2nd Brown was convinced that the ship was larger than any known boat burial in England (Bloch 2006:99). In fact—at over 83 feet in length—the boat far outstripped even the famous ship-burials of Oseberg and Gokstad (Care-Evans 1986:19).[129] Despite Brown's fears

[124] I borrow this title from a conference session of the same name run by Kirsty Millican on 20th December 2017 as part of the Theoretical Archaeology Group annual conference in Cardiff.

[125] Pretty's husband had recently died, leading her to develop an interest in spiritualism. Crawford suggested that her motivation in excavating the mounds derived from these "certain beliefs about spirits" (1955:272). However, Pretty was no stranger to archaeology, having visited the pyramids as a young woman, and watched her father's excavation of a Cistercian Monastery on the site of her childhood home (Bruce-Mitford 1975: xxxvi).

[126] Brown was a jack-of-all-trades having previously worked as a farmer, an insurance agent, a special police constable, a gardener and an astronomer. For a biography of Basil Brown see Durrant (2004).

[127] Brown identified a feature in Mound Two as the poorly preserved remains of a boat burial, however when this mound was re-excavated in the 1980s it was found that this was actually a disturbance left by grave-robbers.

[128] This mound is generally referred to as Mound One, though it has been given a number of designations over the years.

[129] In this chapter I cite measurements in the units given by the excavators as a means of highlighting the subsequent problems caused by the varying standards of record keeping (See Section 2.5).

that the mound had been targeted by antiquarian treasure hunters all signs seemed to indicate that they had not reached the level of the ship, raising hopes that an intact burial chamber might still be found. At this point, rumours of the excavation had reached Cambridge. Charles Phillips, fellow of Selwyn College, visited the site with a chaperone from the Ipswich Museum on 6th June (Phillips 1940:9; Markham 2002:17). The visit did not go well. Brown was to understatedly describe events as getting "a bit heated" predicting "we shall be certain of having numerous distinguished people visiting the site in the near future" (Brown 1939d:160).

Brown could not have known how prophetic this statement was to be. Shocked by the potential ramifications of the discovery Phillips scrambled to contact the Office of Works and the British Museum (Phillips 1983:10). Three days later a meeting was called between representatives of the British Museum, the Office of Works, the University of Cambridge, the Ipswich Museum and Edith Pretty (Markham 2002:17).[130] Brown himself was not invited to the meeting, foreshadowing events to follow in which he was systematically side-lined (Brown 1939e:161). Though Reid-Moir and Maynard had hoped to maintain local control over the excavation, the outcome of the meeting was the agreement that Phillips should take over from Brown, acting with the sanctioned approval of both the British Museum and the Office of Works. But Phillips was not able to assume command until July. And so Brown, Spooner, and Jacobs quietly continued to uncover the rest of the ship; locating the burial chamber on 14th June and unearthing the far end of the ship two weeks later (Markham 2002:22). When Phillips finally arrived on site on July 8th emotions ran high. Brown described Phillips as "bellicose" (Brown 1939f:167) but was to cautiously concede "I think we shall be able to co-operate all right, at least I hope so" (Brown 1939g:167).[131]

Phillips was joined by Peggy and Stuart Piggott on 19th July, and the two new arrivals cautiously began probing the burial chamber (Phillips 1940:9).[132] On 21st July Peggy Piggott found the first sign of the treasures to come, uncovering "a small pyramid of solid gold…wonderfully decorated with cloisonné work" (Phillips 1939a:736). More finds were soon to follow. Phillips later described the burial deposit as laid out "in the form of a letter H", with "domestic" objects lying along the east wall of the chamber, while along the west wall lay those of a "magnificent…personal" nature (1940:13-14). Running east to west along the keel line of the boat the most "outstanding objects" were

[130] Sources are in agreement that Christopher Hawkes represented the British Museum, that Phillips and Grahame Clark attended from Cambridge and that James Reid Moir and Guy Maynard stood for Ipswich Museum. However, the identity of the Office of Works representative is unclear (Markham 2002; M. Carver 2017).

[131] Brown and Phillips eventually developed an agreeable lifelong friendship (Phillips 1987). Durrant notes that even in 1969 Phillips was still keeping Brown updated on the ongoing excavations at Sutton Hoo (2004:38).

[132] Peggy Piggott is also known as Margaret Guido or Peggy Preston.

discovered, the gold clasps, the great buckle, the purse and the Merovingan coins (Phillips 1940:17). In the absence of a professional photographer on-site, the early finds were inexpertly photographed by Peggy Piggott before being lifted from the chamber.



Figure 2.3 Peggy Piggott's photograph of the purse. Print 2.16.

A copy of Peggy Piggott's photograph of the purse appears in Box Two of Crawford's archive, tucked away at the very end of the box (Figure 2.3). The purse lid and buckle are slightly out of focus, and much detail is lost to overexposed highlights. Notably Piggott commits a cardinal sin in

archaeological photography, framing the scale so that it runs at a jarring angle across the foreground.[133] Crawford has not so subtly noted "This is not my photo" on the cardboard mount.[134] His low opinion of the print is attested to in a letter sent to Phillips enquiring if alternative photographs of the purse existed (Letter from Crawford to Phillips. 27 November 1939. SH-PHOTOG_EXCAV I, 1939. British Museum). It is notable that in subsequent publications this photograph is never reproduced, instead studio photographs taken post-conservation are the most commonly disseminated images of the purse. In labelling the photograph Crawford was actively managing his own reputation as a photographer, disassociating himself with prints he deemed to be below a threshold of technical ability.[135] Though Crawford managed his archive on a grand scale—carefully depositing some material while purging other segments—his interest in self-curation extended to the management of the smallest details on individual prints.

Moreover, the presence of Pigott's photograph introduces a particularly salient point for this chapter; though in a letter to H.G. Wells Crawford styled himself as the "official" photographer of the excavation (MS Crawford 2.25-26), Crawford was far from the only photographer present at the site.[136] Grahame Clark appears in several of Crawford's photographs with a camera slung around his neck (Figure 2.23), while the British Museum's Department of Britain, Europe and Prehistory holds photographic records made by Peggy Piggott, Phillips, Brown, Lack, Wagstaff and the famed photographer-partner of Mortimer Wheeler, Maurice "Cookie" Cookson. The presence of Cookson at Sutton Hoo is especially relevant given his influence—demonstrated by Thornton and Perry (2011)—on a whole generation of archaeological photographers through his work with the photographic laboratory at the Institute of Archaeology. Cookson's *Photography for Archaeologists* (1954) is widely understood as setting out the definitive conventions for photographing excavations. Though it is beyond the scope of this chapter to give a full treatment of each of these collections, I want to set Crawford's photographs from Box Two firmly in the context of a wider range of photographic activity at Sutton Hoo. The presence of these alternative photographic collections makes it possible to draw these archives into dialogue; noting the ways in which each collection of photographs resonates with or brushes against the others. This is particularly key when it comes to interrogating the notion of the 'visual grammar' of archaeology.

[133] Mortimer Wheeler wrote that "Nothing looks worse than a scale unintentionally out of the vertical or horizontal" (1954:201).
[134] Crawford usually denotes photographs sent to him by the designation "Ph." Followed by the photographer's name.
[135] In Chapter Four I note examples of Crawford making excuses if his own photographs fell below his standards.
[136] There was likely an element of showboating in this claim. See Hauser (2008) on Crawford's hero worship of Wells.

Guha (2003, 2005) and Baird (2017) have argued that adhering to the 'visual grammar' of archaeological photography was a means by which an excavator could demonstrate the scientific rigour behind their fieldwork; reassuring other archaeologists that their conclusions were trustworthy. In seeking to replicate visual standards, Baird (2017) argues archaeologists adopted practices—like rigorously cleaning sites—in order to meet these expectations. In doing so she gestures towards the suggestion that to reproduce archaeology's 'visual grammar' required the standardisation, not only of the final photographic product, but also of the movements and practices of archaeologists during excavations. Take for example Cookson's prescription that the archaeological photographer "should reach the site before work on it has begun" making several photographs of the entire site from a minimum of three to four angles—which would ideally align with the cardinal compass points—and then systematically documenting every subsequent stage of excavation (1954:46). There is evidence that several of the photographers present at Sutton Hoo attempted to conform to this schema; both Brown and Peggy Piggott's photographs feature a series of context shots, locating Mound One in its wider landscape.

When examined as individual images many of Crawford's photographs of the excavation also seem to conform to these developing visual conventions, but when examining the spatial, temporal and sequential relationships between the photographs in Box Two a very different story emerges. This is most immediately obvious in the comparison of a set of four photographs taken by Cookson—most likely on 24th July (cf. Bruce-Mitford 1975:738)—with the first six photographs taken by Crawford upon his arrival at the site.[137] "Cookson 77 A511043" was taken from the north-west corner of the burial chamber, looking diagonally across the chamber toward the south-east corner (Figure 2.4). In the second Cookson Print, this time labelled "Cookson 1.2", Cookson had moved to a higher vantage point looking down into the chamber from the very top of the northern spoil heap (Figure 2.5).[138] By the third photograph "Cookson 1.3", Cookson stood at the centre of the eastern edge of the chamber, looking due west towards the Shepherd's hut (Figure 2.6). From here Cookson moved to the south-east corner of the burial chamber, looking diagonally across the length of the chamber towards the north-west to take "Cookson 1.4 Woodbridge 75" (Figure 2.7).

[137] The archives held in the British Museum have been the site of much confusion over the years and Cookson's photographs have been given a series of reference numbers which often contradict the serial order implied by Cookson's negative numbers. When consulting photographic prints at the British Museum photographs are proffered in loose form, temporarily packed together into a single plastic box, with no further contextual documentation. And so, it is with a tinge of uncertainty that I refer to the sequential order of these four photographs. See Section 2.5 for a further discussion of these practices and confusion surrounding the dating of Cookson's photographs.

[138] See Cookson 1954:48 on the importance of elevated vantage points.



Figure 2.4 Cookson 77/ A511043. Sutton Hoo Archive. Department of Britain, Europe and Prehistory, British Museum. Photograph by the author.

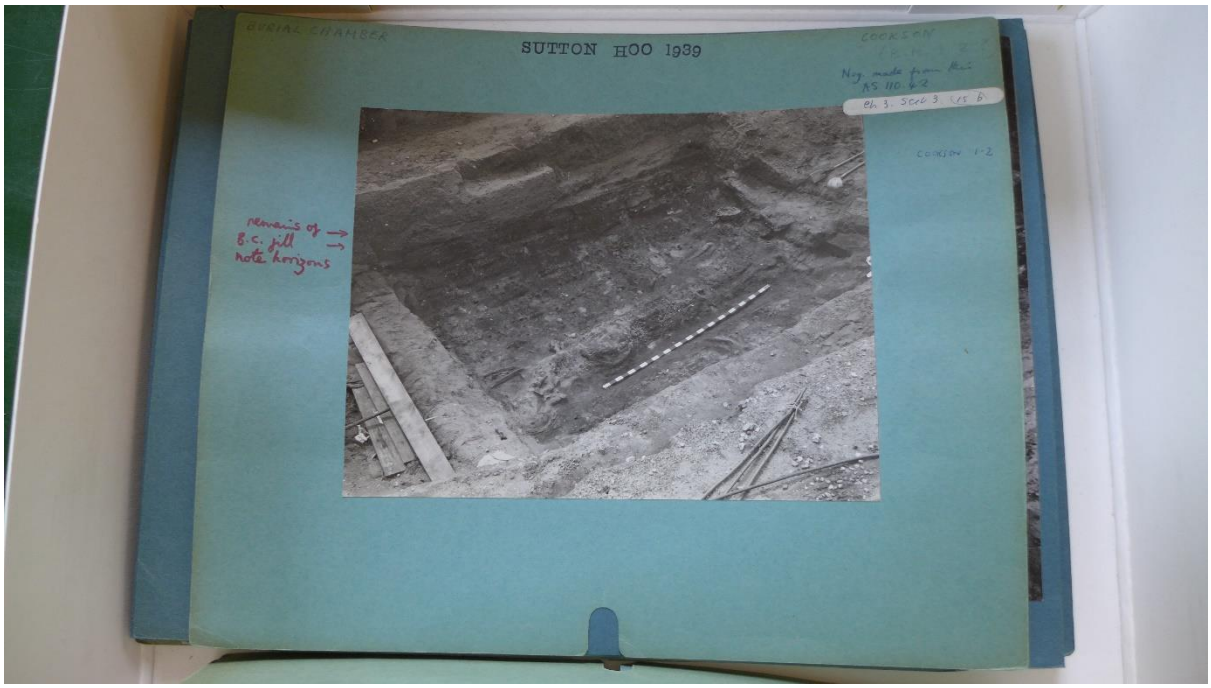


Figure 2.5 Cookson 1.2. Sutton Hoo Archive. Department of Britain, Europe and Prehistory, British Museum. Photograph by the author.



Figure 2.6 Cookson 1.3. Sutton Hoo Archive. Department of Britain, Europe and Prehistory, British Museum. Photograph by the author.

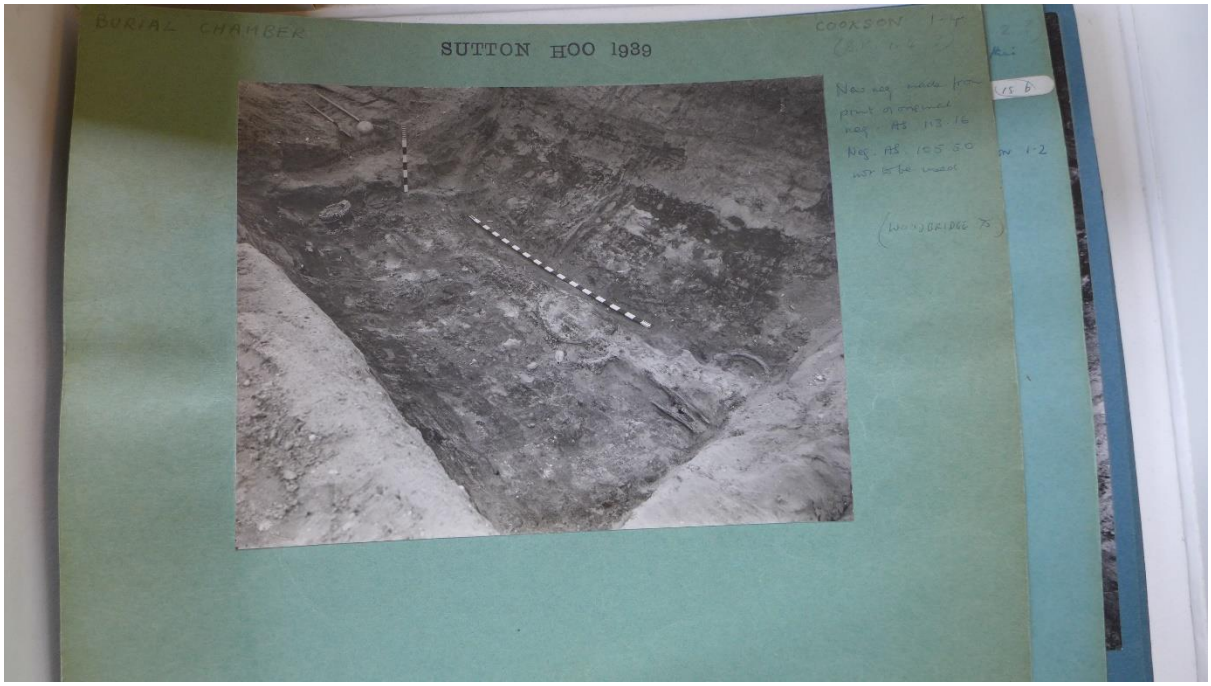


Figure 2.7 Cookson 1.4. Sutton Hoo Archive. Department of Britain, Europe and Prehistory, British Museum. Photograph by the author.

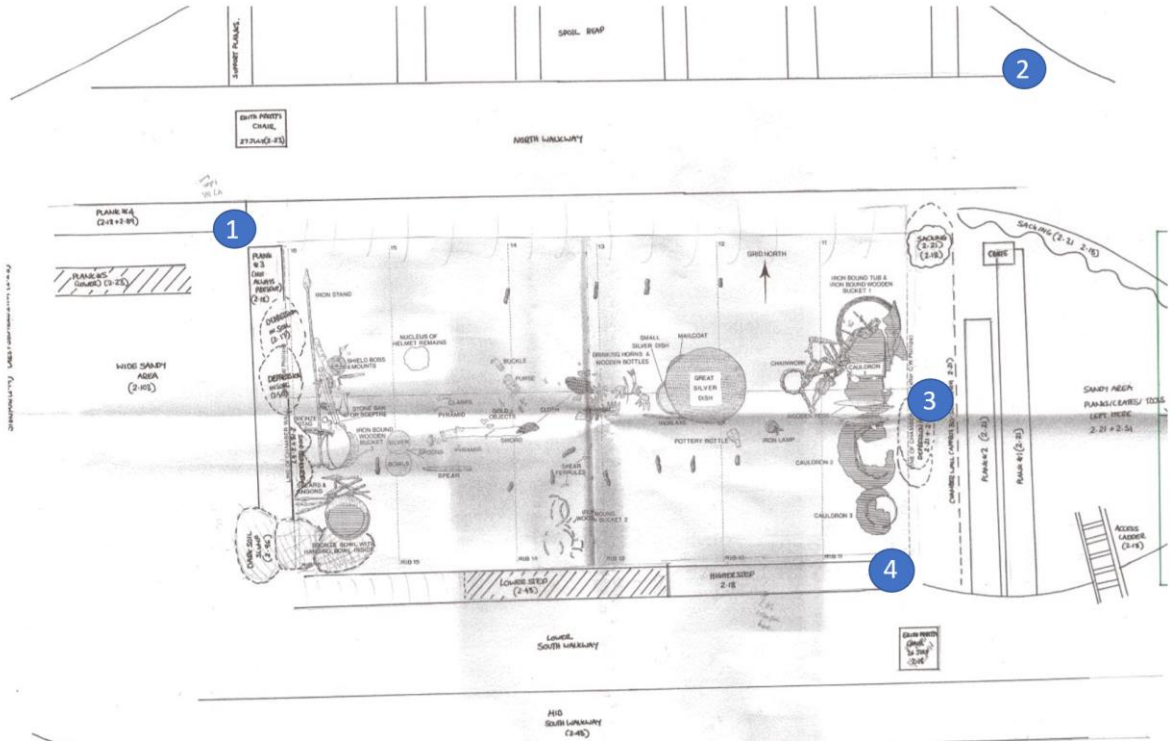


Figure 2.8 Cookson's vantage points. Diagram by the author.

What do this series of prints reveal about the relationship between the visual grammar of archaeological photography and Cookson's movements around the site? Though by 24th July the excavation was at too late a stage for the standard context shots to be taken, Cookson still attempted to conform to the scheme of movements demanded by archaeology's 'visual grammar'. There is an almost military degree of precision in Cookson's measured clockwise progression between vantage points; his photographs outlining the entire scope of the burial chamber from three of the four corners of the trench along with a single shot aligned with the centre of the chamber (Figure 2.8).[139] In the absence of Cookson's negative register, or definitive records on the timings of these photographs, it is still possible to discern traces of the pace at which Cookson moved between these vantage points. Cookson worked predominately with a large format camera (Figure 2.9) which took 12 x 10-inch plates (Cookson 1954:12). The camera, no small object itself, was mounted on a tripod which Cookson preferred to be as solidly built as possible (1954:19). The combination would have resulted in a cumbersome process of dismantling equipment before moving between viewpoints. The relative cost of large format film would also have necessitated a

[139] See Chapter Three and also Chadha (2002) and Baird (2017) for the relationship between military order and archaeological photography.

careful consideration of each exposure.[140] This was often a collaborative process, involving intense consultation between photographer and site-director (Wheeler 1954:154).

In addition, the site shows signs of having been cleaned between the taking of the first and fourth photographs in the series. The footprints visible in Figure 2.4 have been carefully cleaned away, leaving only the faintest trace of trowel marks in the sandy foreground, and the two shovels at the far end of the chamber lie perfectly aligned with the scale running along the centre of the chamber. The careful scraping away of footprints and tidying of tools has been described as erasing the presence of archaeologists from site photographs (McFadyen 1997, cited in Lucas 2001a:13). Yet is it possible to work backwards from this erasure, and ask instead what kind of inhabitation of the site is implied by the act of cleaning? If the reader takes one message away from *Photography for Archaeologists* it is that site cleanliness is paramount; for Cookson a "poorly brushed floor" or "badly trimmed grass-edge" could only spell "ruin" for a photograph (1954:13-14). Mortimer Wheeler suggested that the cleaning of a site could take "hours, occasionally days before the brief session with the camera" (1954:201; cf. Cookson 1954:14). In these accounts archaeological photography is not simply a matter of freezing a 'decisive moment', but required an extended sequence of actions leading up to and extending beyond the moment of taking a photograph; in the form of the careful selection of vantage points in consultation with the site-director, setting up and moving photographic equipment, and the laborious cleaning of the site.[141] In devising a 'visual grammar', Cookson also developed entire sequences of movements that must be enacted by archaeologists during the excavation process. Even in this brief exploration of Cookson's photographic practice, there is much to suggest that the way we speak of archaeological photography needs to be rethought, to account for these embodied actions and the people and things involved in this preparatory process.[142] Far from being a socially isolated endeavour that took place in the blink of an eye, archaeological photography was a drawn-out collaborative process.

[140] As an approximation of cost, Thornton and Perry (2011) have noted that the UCL Institute of Archaeology would have charged 10s6d plus travel expenses to send a photographer to site to take a single full plate photograph.
[141] Cf. Knight and McFadyen "it always takes time to take a photograph" (2019:57).
[142] Cf. Olsen et.al. (2012) on the importance of acknowledging the tools used by archaeologists during excavation.

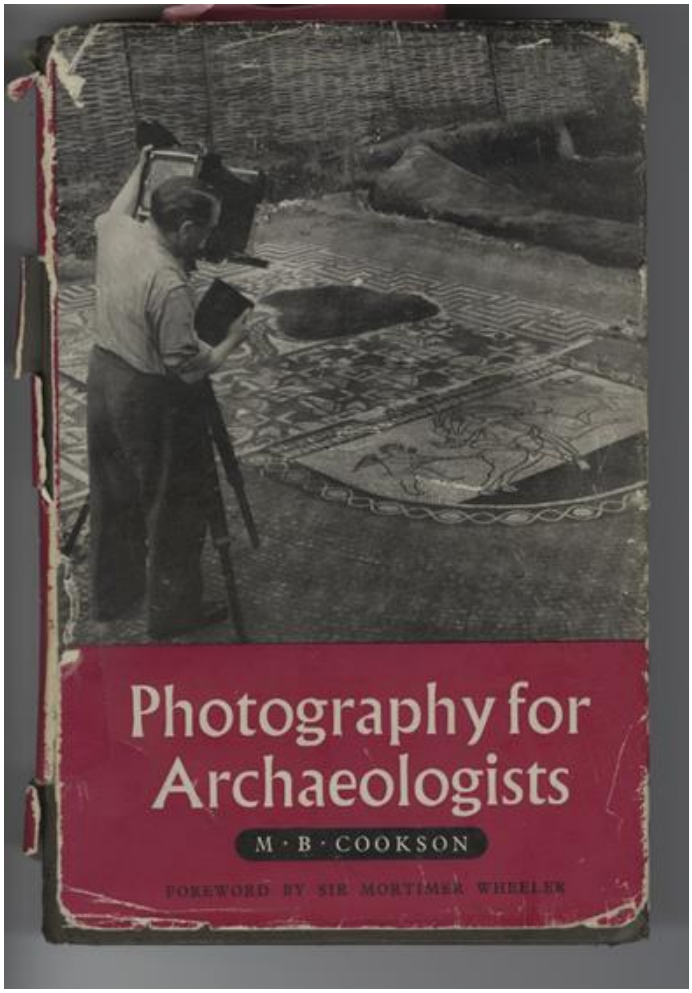


Figure 2.9 Cookson and camera on the cover of Photography for Archaeologists (1954).

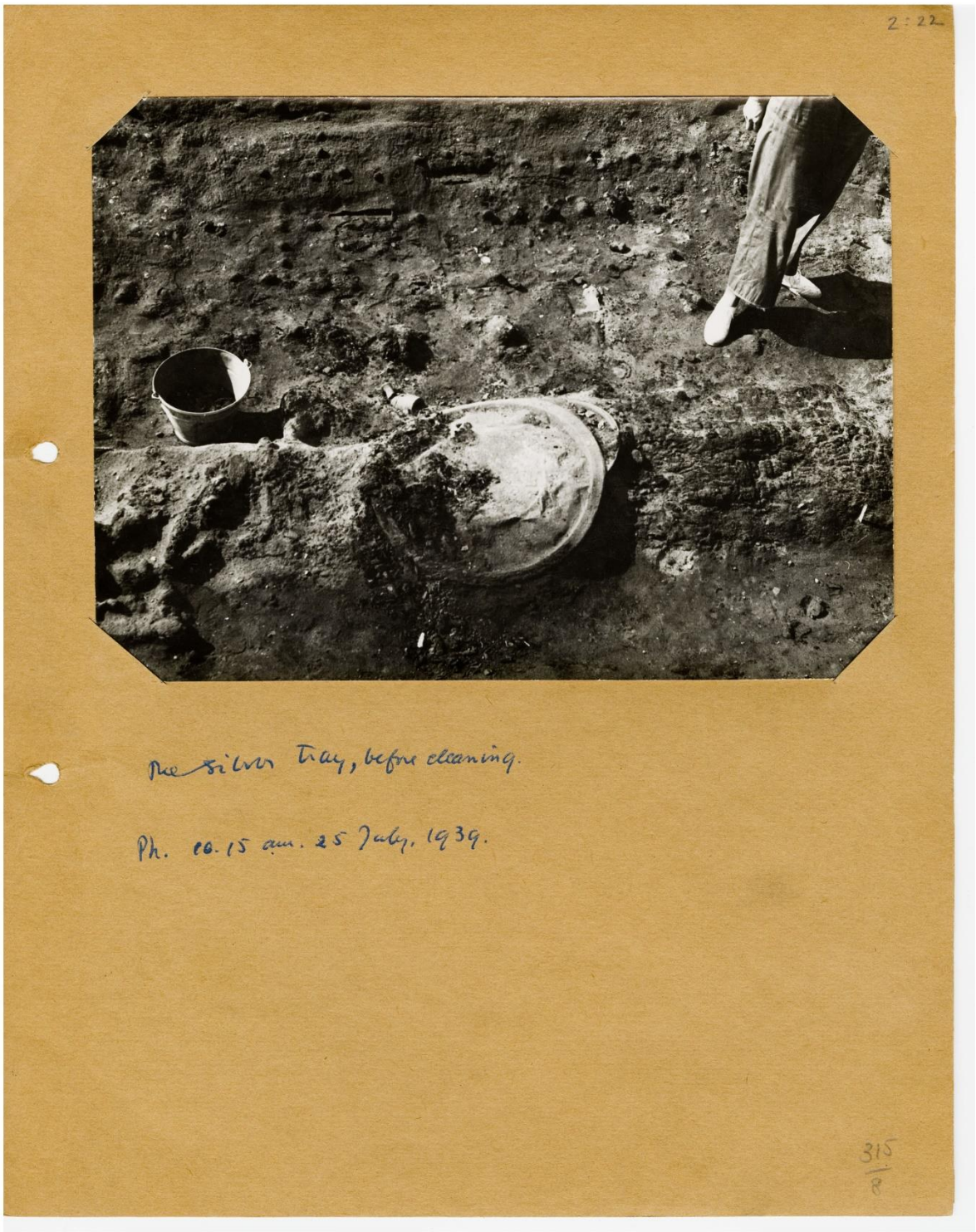


Figure 2.10 The first photograph taken by Crawford at Sutton Hoo. Print 2.22

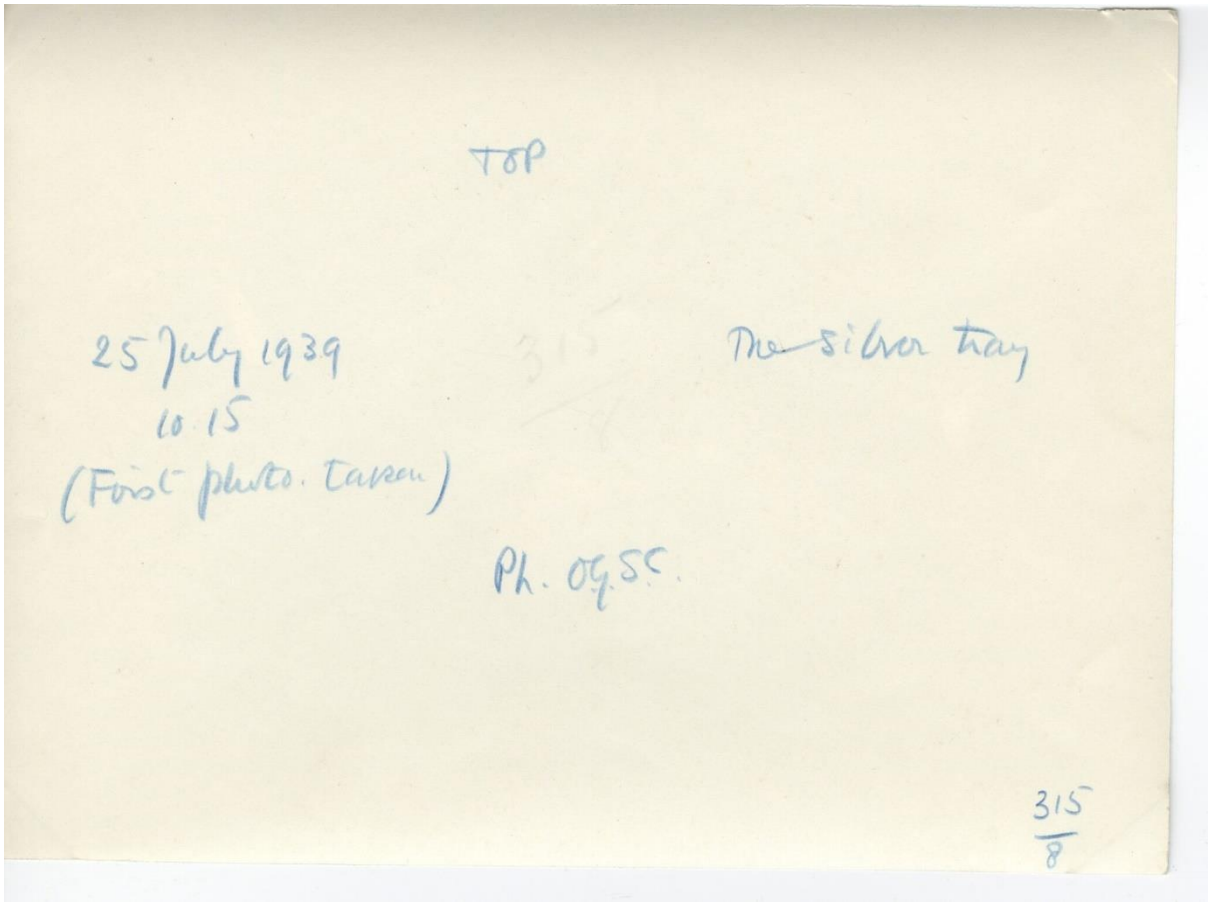


Figure 2.11 Reverse of Print 2.22.

When reviewing Crawford's accounts of the excavation it is notable that one feature in particular dominates his recollections; a silver dish measuring about three feet in diameter. The lifting of the dish was "one of the great moments none of us who were present will ever forget" (Crawford 1940:2). The dish seems to have left a similar impression on Grimes who wrote "the dominant feature in my first view of the ship was a great three-foot purple-grey dish: beneath which the lip of at least one other vessel was the promise of more treasure to come" (Grimes 1940:69). The Anastasius Dish—as it came to be known—also visually dominates the first photograph Crawford took at Sutton Hoo (Figure 2.10). On the mount of the print Crawford has written "The silver tray, before cleaning. Ph.10:15 am. 25 July 1939", and on the reverse his handwriting—in pencil this time—notes "First Photo Taken" (Figure 2.11). The tension between these inscriptions, the outward facing recital of factual data, and the hidden note tying the photograph to Crawford's experience of arriving on site and glimpsing the finds for the first time resonate throughout the sequence of photographs which Crawford took on that first morning at Sutton Hoo.

Unlike the perfectly 'cleaned' site presented by Cookson, Print 2.22 offers a far more unpolished vision of the excavation process. In the foreground, a raised bulk of soil reveals a mass of textures

and half formed shapes which hint at things soon to emerge from the earth. In the centre of this mass the Anastasius dish is still half-covered by dark soil. In the background the rivets of the ship protrude from the earth in regular patterns, while a broken pottery bottle lies with its shattered neck sitting at an awkward angle to its body. Recalling Antonia Thomas' (2019) work on the multi-temporality of archaeological photography it is possible to recognise the temporal complexity of this photograph. Ship rivets are set into the impression of wood that no longer exists, the broken bottle and crumpled dish archive in their material form the collapse of the burial chamber roof in the centuries following the burial. Co-present with these finds are the tools responsible for revealing them; the rim of a spoil bucket catches the sunlight creating a second silver disc that seems to echo the form of the Anastasius Dish. Stranger still, in the upper right-hand corner are a pair of disembodied legs, and a single hand. These amputated body parts belong to Peggy Piggott, her disjointed limbs seeming to gesture back towards the central feature of the dish.[143] It is as though Piggott has stepped away from her work—just for a moment—to look up at Crawford on the side of the trench.

Throughout his life Crawford emphasised that what really interested the new school of scientific archaeologists were the principles of stratigraphy and context; "The excavator, if he is properly trained, and has the necessary imagination, can get an intellectual thrill from discoveries that mean nothing to the man in the street" (1940:2). And yet even 'Dirt' archaeologists were not immune to the thrill of a good treasure hunt; in his account of the Sutton Hoo excavation Crawford was to gush "we felt that we were present at the unveiling of history and that the history of our own country" (1940:2).[144] This is a far cry from the mournful contemplation of the partiality of the archaeological record described by Bohrer (2011) and Hauser (2008). Traces of this effervescent excitement at the tangible material remains of the past manifest in Crawford's photographic practice. Unlike the hazy sequential relationships between Cookson's photographs, the existence of Crawford's negative register enables the detailed reconstruction of the spatial, sequential and temporal relationships between the photographs which Crawford took on the morning of 25th July.

Crawford did not linger long after photographing the Anastasius Dish (Figure 2.10). From the north side of the trench he moved to the south-west corner of the burial chamber—leaning out over the edge to take a vertical and an oblique view of the bronze bowls. Crawford then abandoned the trench entirely to take five photographs of the whetstone which was already safely nestled in a

[143] Crawford's Rolleiflex camera produced negatives of 2 ¼ x 2 ¼ inches. However, the prints in Box Two are printed on rectangular paper, effectively cropping the images. In the British Museum archive, Piggott's full figure is visible in the original negative, though she turns her head away from the camera obscuring her face.
[144] Hauser has commented on this unusual burst of patriotism from Crawford (2008:223).

packing crate (Figure 2.12 & Figure 2.13).[145] The entire process took just 15 minutes, an average of just under two minutes per photograph. The spatial distribution of Crawford's vantage points combined with the temporal relationship between the exposures tells a very human story; in just under fifteen minutes Crawford enacted a frantic dash around every find uncovered at that stage of the excavation.[146] That he incorporated photography into this initial rush is worthy of comment.

In 1936 Crawford published a short-lived series of notes on archaeological photography in *Antiquity* (Crawford 1936c, 1936d).[147] These notes were aimed at amateur photographers and were designed to raise the general standards of photographic submissions to the journal. In these notes Crawford articulates the conventions which Cookson was to later canonise in *Photography for Archaeologists*, such as the importance of devoting time to carefully examining a subject before committing to photograph it (Crawford 1936c). In a radio broadcast entitled 'Reminiscences of a Field Archaeologist' Crawford described his process:

> You can't take too much trouble in taking a photograph…when I see a site I want to photograph, I generally walk around it like a dog, have a look at it from different angles, and then, when you've seen how the light falls on it, then you get to work… (MS Crawford 101.201). [148]

Crawford was not only familiar with developing conventions for archaeological photography, but publicly advocated the importance of enacting a slow and considered inspection of one's subject matter before even handling the camera. The contrast between these public pronouncements and his rapid race between artefacts at Sutton Hoo is thus even more striking. This disregard for the standard photographic process can only be explained as encapsulating Crawford's genuine emotional response to the discoveries set out before him. Aside from what seems to have been quite obvious excitement, Crawford's photographic equipment also enabled him to move in a very different way to Cookson. Crawford's use of a medium format Rolleiflex was an unconventional choice for site photography. General conventions specified that site-photography required a camera capable of taking at least quarter plates, a choice of lenses and a substantial tripod, though Cookson was prepared to admit that a smaller Reflex camera might be suitable for a field archaeologist working alone (Cookson 1954:23; cf. Der Manuelian and Reisner 1992:16). In contrast Crawford's Rolleiflex camera was a small handheld device and in his notes on archaeological photography, he argued that "a tripod is seldom required" (1936c:351). Crawford's choice of the Rolleiflex seems to

[145] Of the eight photographs taken by Crawford between 10:15am and 10:30am, six are reproduced as prints in Box Two.
[146] The remaining fourteen photographs taken by Crawford on the 25th July are almost evenly split in subject matter between the Anastasius Dish and the bronze bowls in the south-west corner.
[147] See Darvill (2002) more generally for notes on archaeological methods in *Antiquity.*
[148] Broadcast Thursday 17th February 1955.7:15-7:35 pm.

stem from his background in field archaeology and his associated desire to avoid carrying unnecessary equipment while field walking. This interpretation is borne out in a gloriously acerbic reply to responses sent to him after the publication of the first note on photography in which he promises to never again leave the house without “two ash tripods, a six-foot wooden bar, a syringe and bucket, a stand, one exposure meter, a lens hood and several different kinds of camera” (1936d:490).

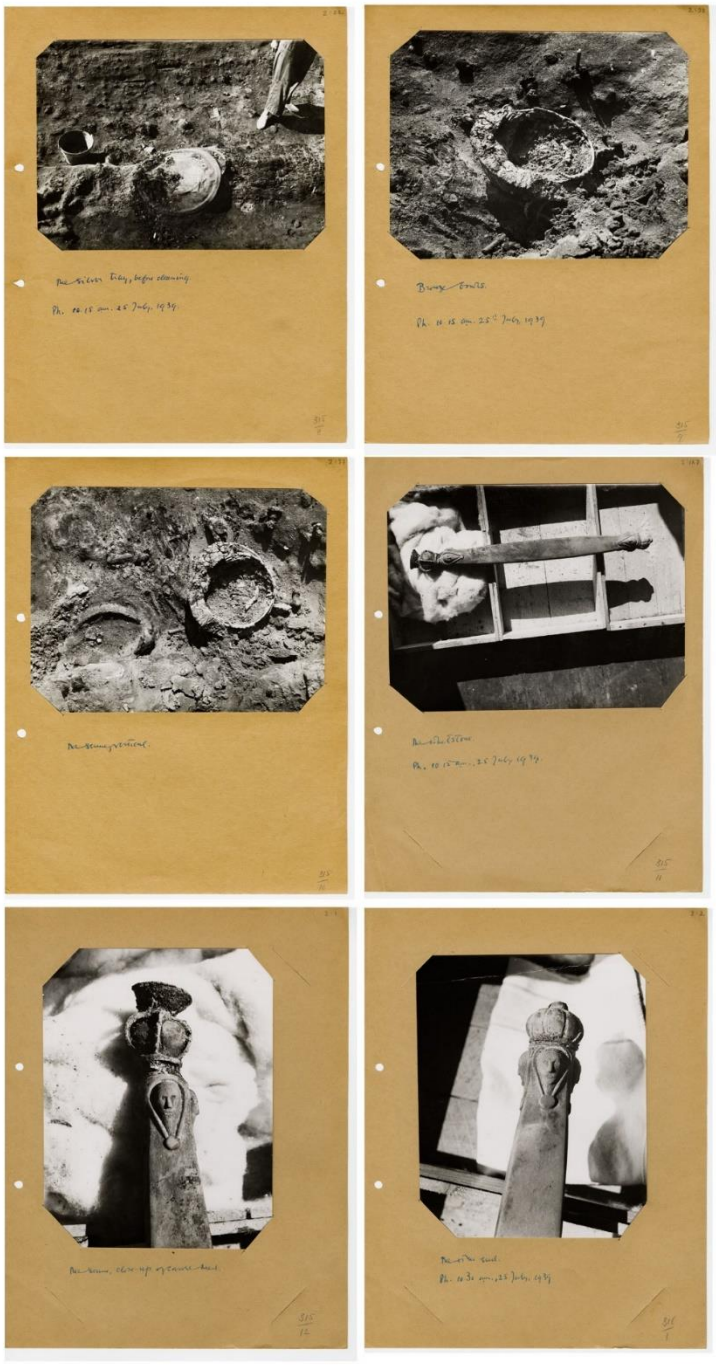


Figure 2.12 The first photographs taken by Crawford at Sutton Hoo. Prints 2.22, 2.98, 2.97, 2.127, 2.1 & 2.2.

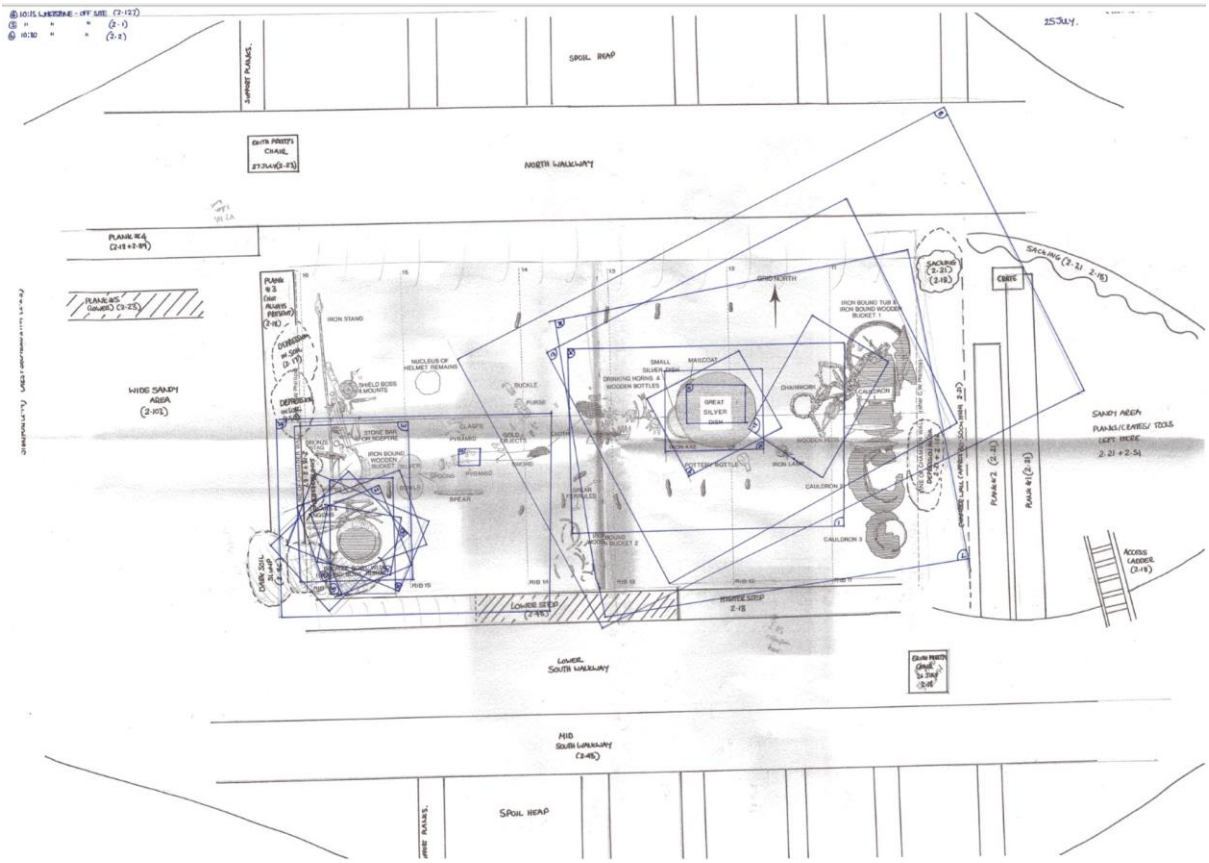


Figure 2.13 Areas of the burial deposit covered by Crawford's photographs on 25th July. Diagram by the Author.

There is one further factor which played a distinctive role in determining the way in which Crawford photographed the emerging finds. It is clear from Crawford's correspondence with Phillips that he had no intention of visiting the site until the discovery of the gold objects came to light; in a letter dated 20th July 1939 Crawford asks if Phillips might consider writing an article for *Antiquity* but makes no mention of a visit (Phillips Correspondence File 719/6. British Museum). Yet the second the prospect of valuable finds became apparent; Crawford smelled a scoop for *Antiquity*. This journalistic intent is clear from an analysis of the subject matter of Crawford's photographs. Of a total of 263 objects removed from the burial chamber over the course of seventeen days (M. Carver 2017:21) Crawford photographed twenty (Figure 2.14). Objects like the broken pottery bottle never feature as the sole subject of Crawford's photographs, despite being of sufficient significance to warrant an explicit mention in Phillips' excavation diaries (Phillips 1939c:738). The helmet too is conspicuously absent, perhaps because it was recovered in fragments too small to make arresting photographs. It is notable that Grimes referred to many of the finds as "broken and apparently worthless objects" (1940:75). It seems that Crawford visually echoed this sentiment focusing only on the most spectacular objects which he knew would interest readers of *Antiquity*.

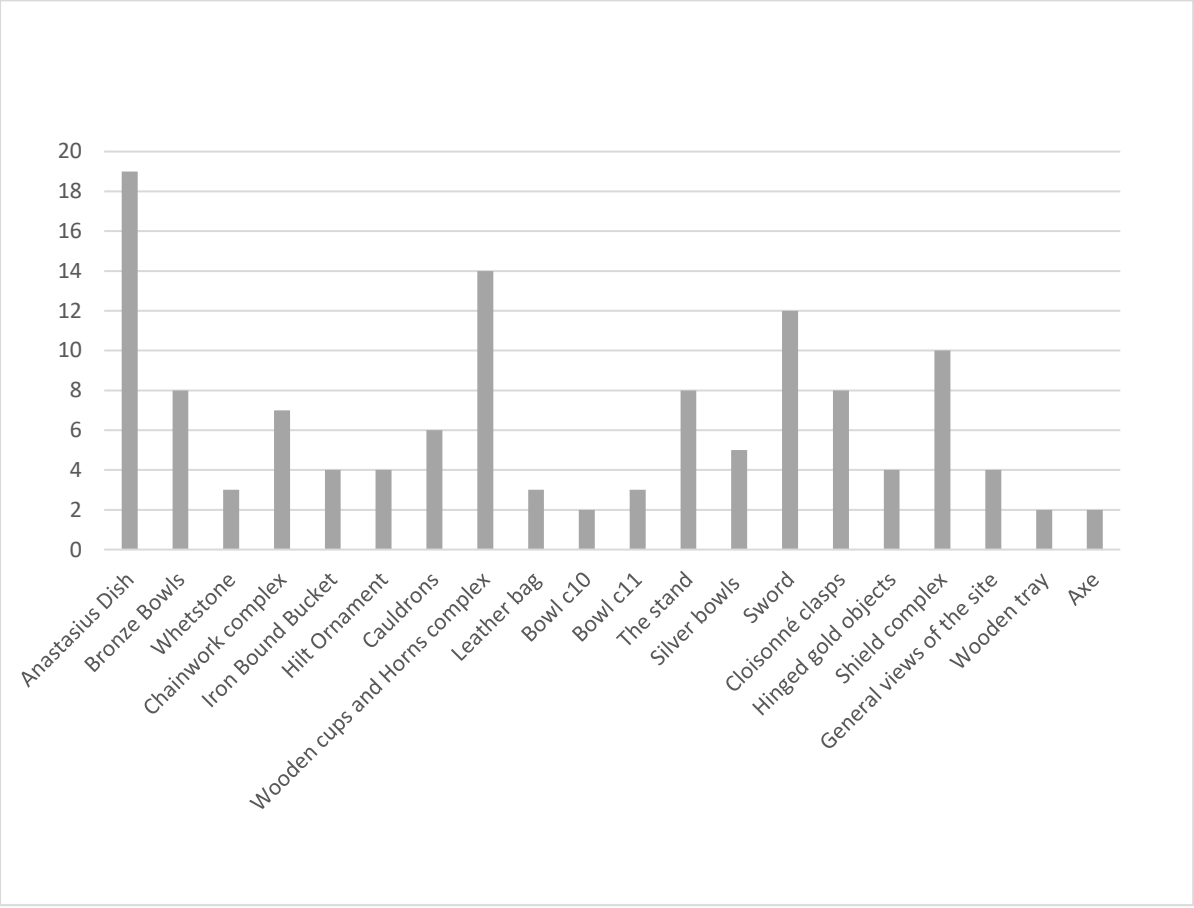


Figure 2.14 Number of photographs of each find taken by Crawford across the five days. Figure calculated by tallying the objects Crawford explicitly labels as the subject of his photographs either on the prints themselves or in his negative register.

Crawford dangled the promise of photographs of treasure in front of readers of *Antiquity* on several occasions. In December 1939 the promise of "the first full and authoritative description of the greatest archaeological discovery ever made in Britain…illustrated by photographs of the objects of gold, silver and bronze" was paired with an extended plea for readers to renew their subscriptions to ensure that the journal could continue to operate during the war (Crawford 1939b:388, cf. Crawford 1939a:260). [176] There are certainly elements of a savvy marketing strategy at play, echoing Thornton's observation that photographs were routinely used by archaeological publications as "extra enticement for prospective purchasers" (2018:101). However, many of Crawford's letters sent to colleagues during this period betray a very real pessimism. In October 1939, Crawford wrote to Phillips "The future existence of Antiquity is still not finally decided. I don't feel I can go on, or that it will be possible to go on" (Letter from Crawford to Phillips. 11 October 1939. PHILLIPS CORRESPONDENCE FILE 719/6. British Museum).[177] Hauser has previously noted the declining size of the journal as Crawford became increasingly disillusioned throughout the Second World War (2008:240). The issue dedicated to the Sutton Hoo discovery boasted 24 illustrated plates—three times the normal number—making it the most heavily illustrated coverage of the discovery at the time.[178] Uniquely, this unusually high number of photographs is advertised prominently on the cover of the volume (Figure 2.15). Crawford explicitly justified this decision "we have endeavoured to illustrate the accounts…by an adequate number of illustrations, for the occasion requires unusual treatment" (1940:5). The spectacular photographs of the finds in the March 1940 issue mark the last great hurrah of *Antiquity* before the steady decline during the war.

Perhaps because of the question mark over the future of the journal, Crawford remained fiercely possessive over his photographs refusing to circulate his prints or negatives for fear of compromising their impact when published.[179] His paranoia over the photographs extended to leaving Phillips detailed descriptions of the locations of both his negative register and the negatives, in case something "should happen to you, me or the photographs" (Letter from Crawford to Phillips. 29

[176] Thornton (2018) argues that in the period 1840-1915 between 1d-3s was a low cost for an archaeological publication, with 3s7d-10s a moderate expense, and above 10s1d an expensive publication. A single issue of *Antiquity* in 1940 was 5s6d, while an annual subscription cost 20s.

[177] Letters written by Crawford to Grimes and received from Cecil Curwen around this date reinforce this impression (MS Crawford 68.86, 68.35).

[178] In comparison the September 1939 and December 1939 issues contained eight plates each.

[179] "Might I ask you not to let them out of your sight and custody? It is a long time still before December, I am so frightened that someone will rob Antiquity of a major scoop." (Letter from Crawford to Phillips 4 August 1939. BM SH-PHOTOG_EXCAV I, 1939. British Museum). "Until they have appeared in *Antiquity* they are remaining in my custody! Once bitten, twice shy" (Letter from Crawford to Phillips. 12 August 1939. Phillips Correspondence 719/6. British Museum). "I feel a little loath to let the photographs escape from their present hiding place…I still do hope against hope for something rather splash-like in Antiquity" (Letter from Crawford to Phillips. 18 September. BM SH-PHOTOG_EXCAV I. British Museum).

September 1939. BM SH-PHOTOG_EXCAV I,1939. British Museum). As extreme as these measures might seem it is sobering to realise that in just under a year Crawford was to lose much of his life's work in the bombing of the Ordnance Survey offices.

Though Crawford mobilised his photographs for financial gain, it is clear from the examples above that photographing the excavation at Sutton Hoo was far from a detached and unemotional endeavour. Turning to the serial, temporal and spatial relationships between his photographs on the morning of the 25th July revealed Crawford's very genuine excitement at the finds emerging from the earth. Thinking about Crawford's choice of camera cast light on the way in which he moved around the site, and gestured towards a streak of individualism (and his background as a field archaeologist) in the face of developing conventions for archaeological photography, while his intense anxiety over the circulation of the photographs speaks to his emotional investment in the process. Having demonstrated that each of these considerations can illuminate the individualised presence of the photographer behind the camera, I now combine this awareness with the observation of "haptic details" within and the material presentation of the photographs in Box Two to create a fuller picture of Crawford's presence as a photographer at Sutton Hoo (cf. Riggs 2017:341).

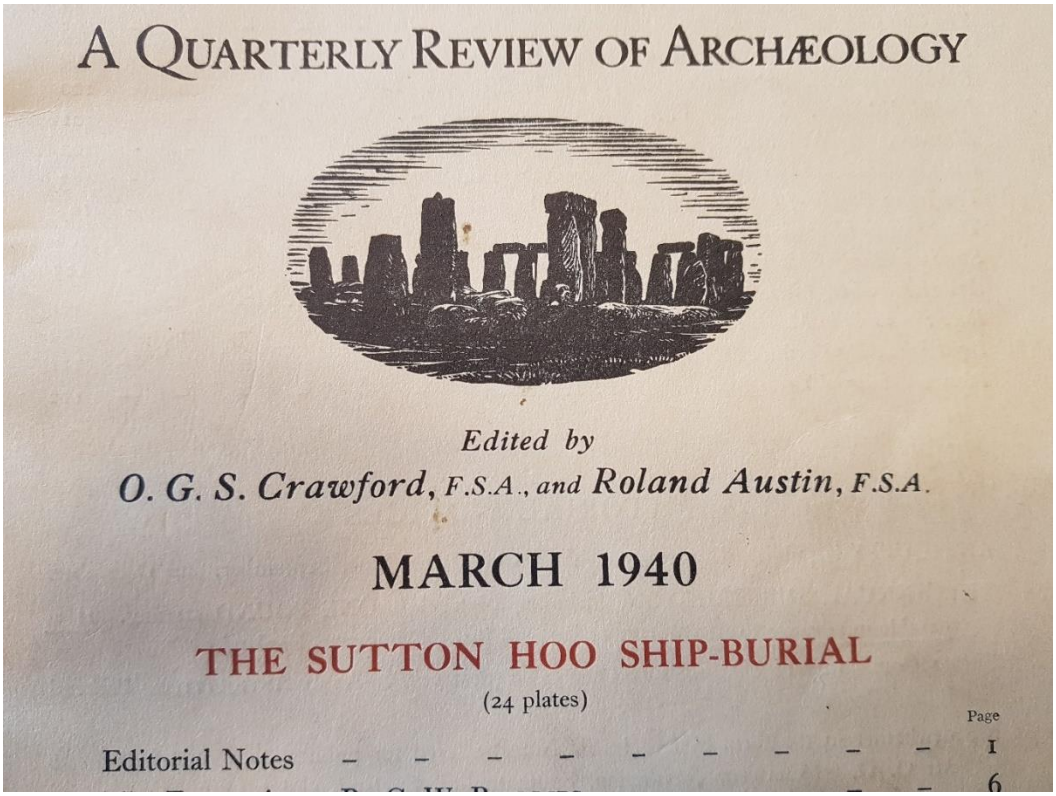


Figure 2.15 Cover of Antiquity (March 1940). Photograph by the author.

43 of the 124 photographs in Box Two depict the excavators at Sutton Hoo over the course of the five days Crawford was present (Figure 2.16). It is illuminating to once again contrast Crawford's photographic practice with the developing 'visual grammar' of archaeology. Carter (2015) has argued that the use of the rod-scale was the definitive visual convention in the performance of 'scientific' practice in archaeological photography. Without a scale—Cookson wrote—any photograph of a site is scientifically "useless" as the viewer cannot deduce the size of a site or object (Cookson 1954:42; cf. Carter 2015:3). In the absence of a rod-scale a human figure was sometimes substituted (Figure 2.17). The way in which the human-scale might occupy the site was strictly disciplined; Cookson prescribed that when featuring in an archaeological photograph "one must never look directly at the camera and should always stand in a working pose" (1954:44).[182] Wheeler too emphasised that human figures must never take up too much of an image, as they are "just so many feet of bone and muscle" (1954:202).[183] The human scale is one of the most emblematic markers of the de-personalised and detached representation of archaeological labour.

The contrast between this standard and Print 2.63 (Figure 2.18) in which Grimes lounges on the floor of the burial chamber gazing directly into the camera is remarkable. Print 2.63 is not unique occurrence in the archive, in Print 2.103 John Forsdyke lies parallel to the edge of the chamber, studiously examining the gold clasps (Figure 2.19), and in Print 2.64 Grimes glares up at some unknown party (Figure 2.20). Photographs in which the subjects are not reclining still offer unusual visions of archaeological labour. In Print 2.32 Grimes' left foot rests dangerously close to the iron lamp as he awkwardly mirror's Phillips' pose (Figure 2.21). In Print 2.24 (Figure 2.22) the three archaeologists occupy the edges of the frame.[184] While each of these photographs conceivably depicts various stages of archaeological labour, they share a quality which transcends Cookson's "working pose" (1954:44). These are not figures included for scale, though their presence gives some indication of the size of the chamber. Rather these are a striking series of portraits of the excavators themselves. This is most apparent on occasions where Crawford's annotations of the prints take a humorous turn; Print 2.64 is labelled "Grimes…looking peeved at someone" and—memorably—Crawford draws attention to Phillips' "rear elevation" in Print 2.43 (Figure 2.23).

[182] This guidance is replicated in much later training manuals e.g., Conlon (1973) and Dorrell (1984).
[183] I discuss the ethical implications of the human scale in Chapter Three. See also Lucas (2001) and McFadyen et.al. (1997).
[184] Grimes, Peggy Piggott and (most likely) Grahame Clark.

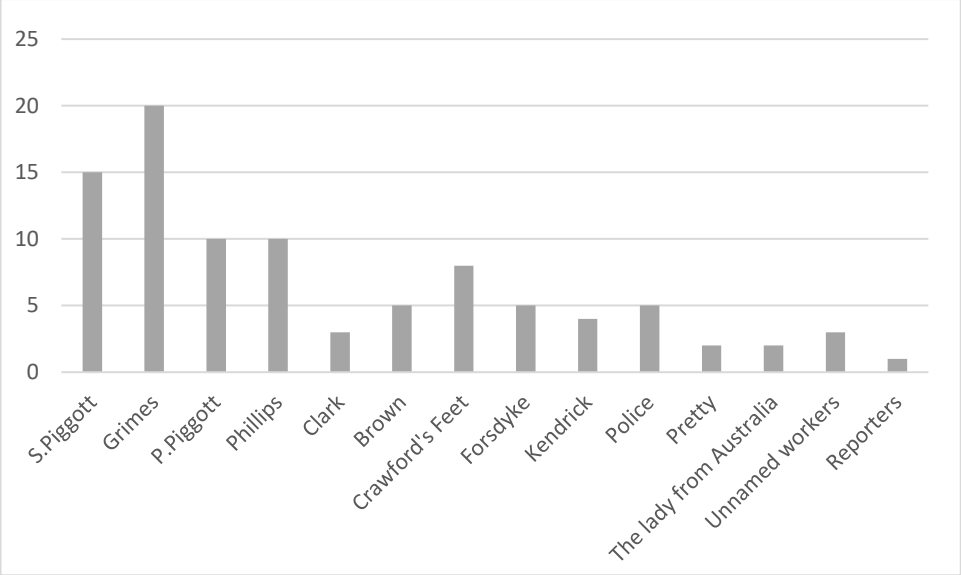


Figure 2.16 Photographs of Crawford and colleagues in Box Two. Count tallied by author and does not reflect persons named in Crawford's captions



18 Stanwick. A high, slightly diffused sun throws enough shadow to give relief to the ditch cut into well-bedded limestone, to the restored dry masonry of the revetted scarp and even to the section through the filling on the left. Half-plate camera, panchromatic film. (M. B. Cookson)

Figure 2.17 Human scales in Cookson's photography. Plate 18 in Conlon (1973).



Figure 2.18 Grimes reclining. Print 2.63.

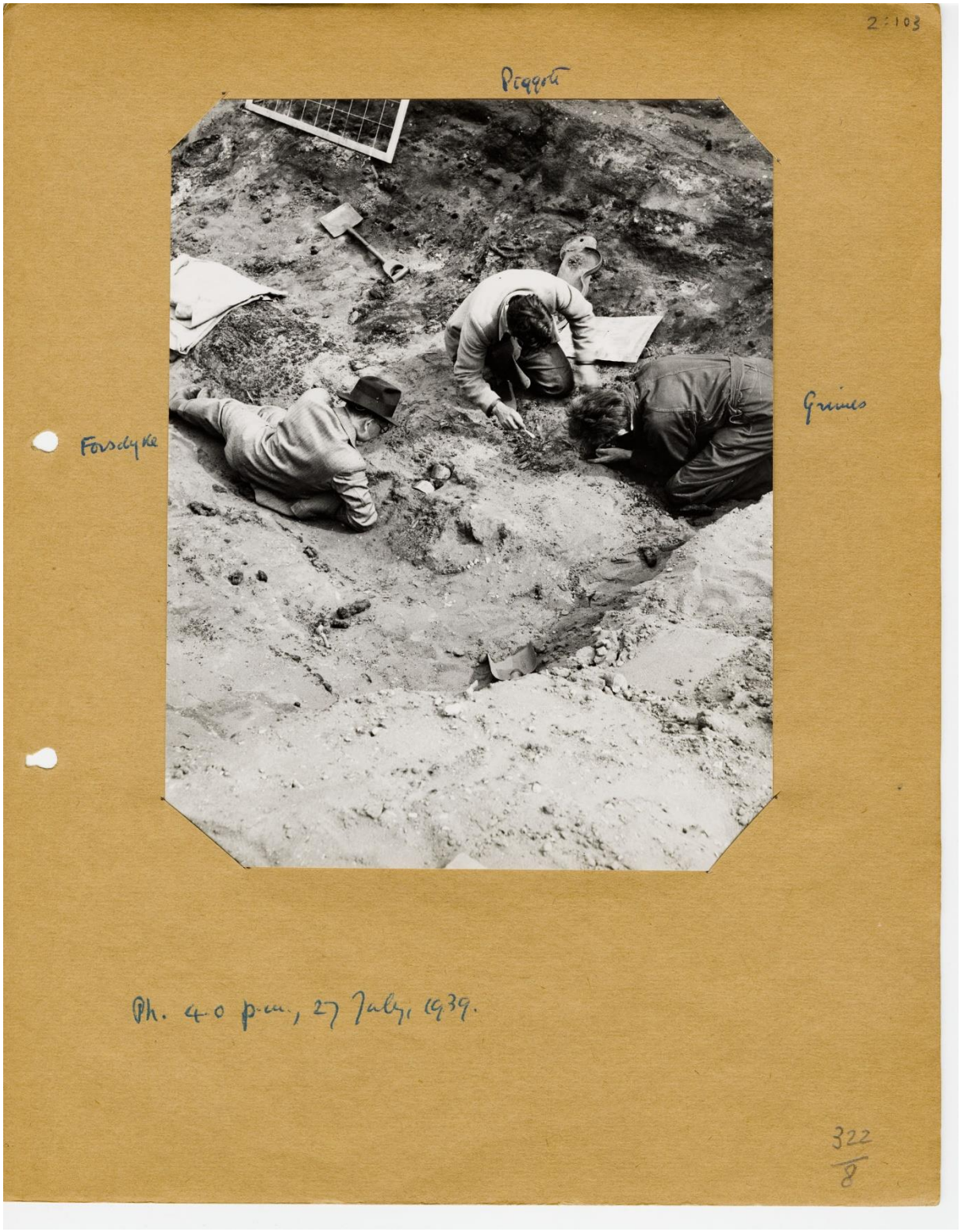


Figure 2.19 Forsdyke examining the clasps. Print 2.103.

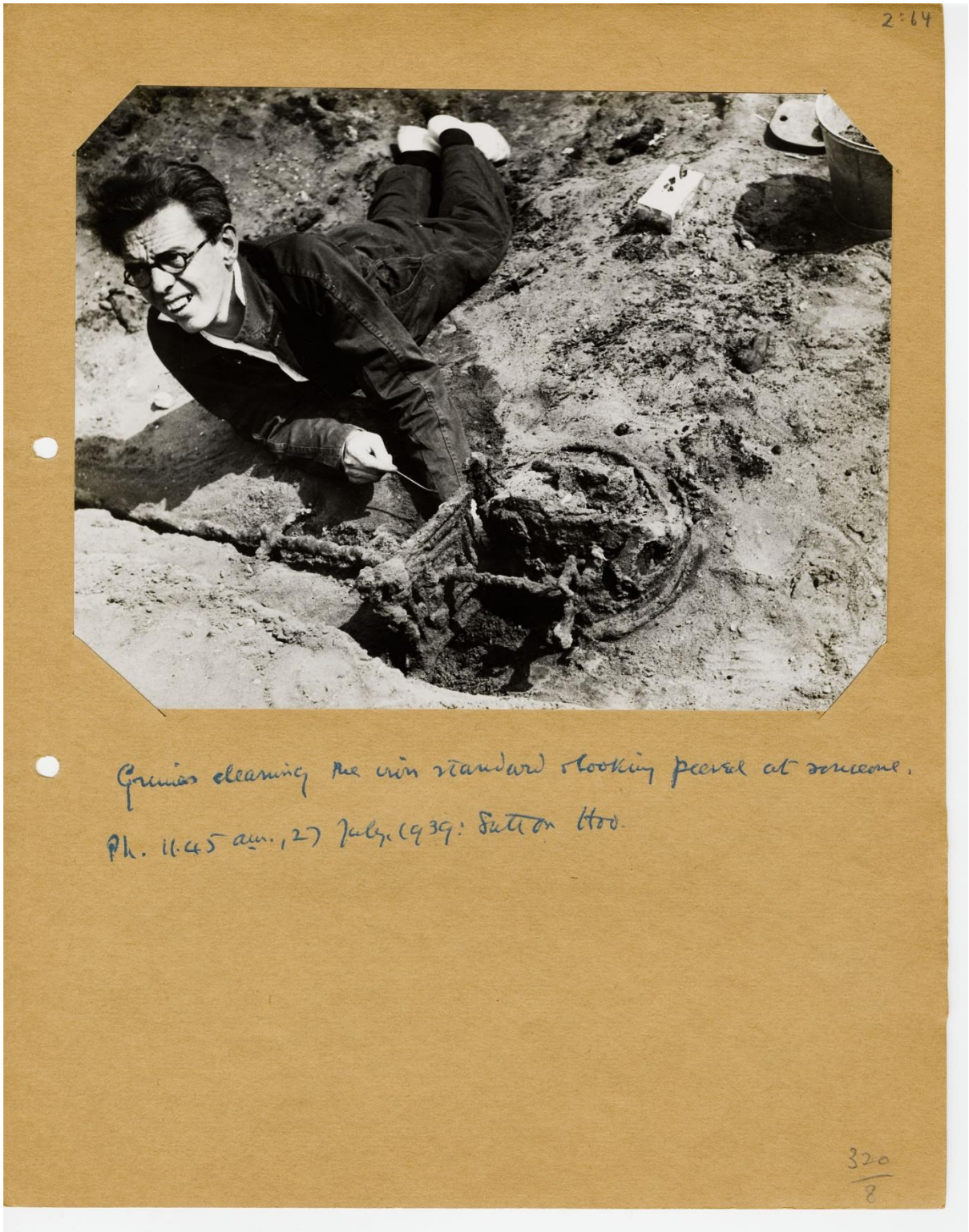


Figure 2.20 Grimes looking 'peeved'. Print 2.64.

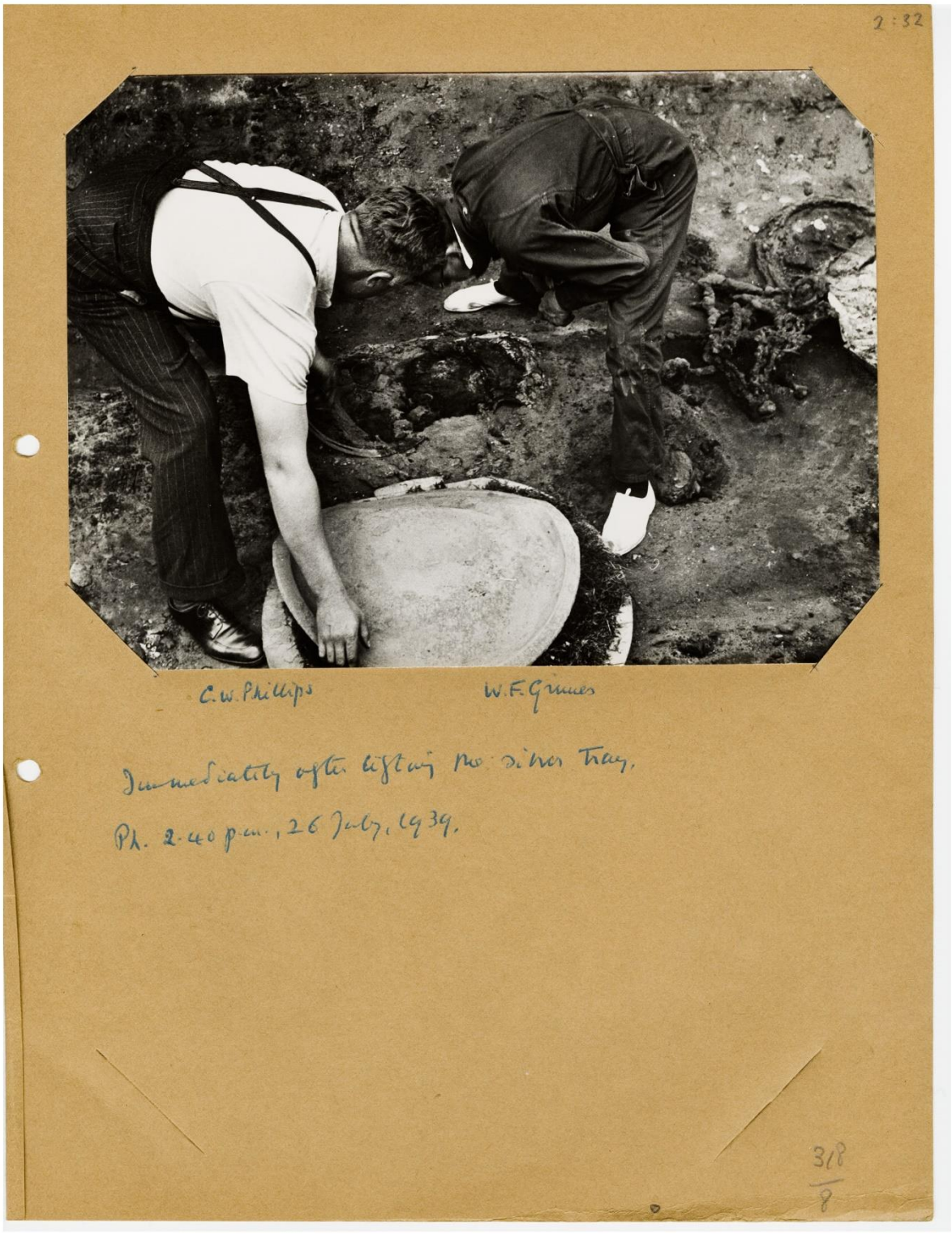


Figure 2.21 Phillips and Grimes mirror each other's poses. Print 2.32.



Figure 2.22 Clark, Grimes and P. Piggott. Print 2.24.

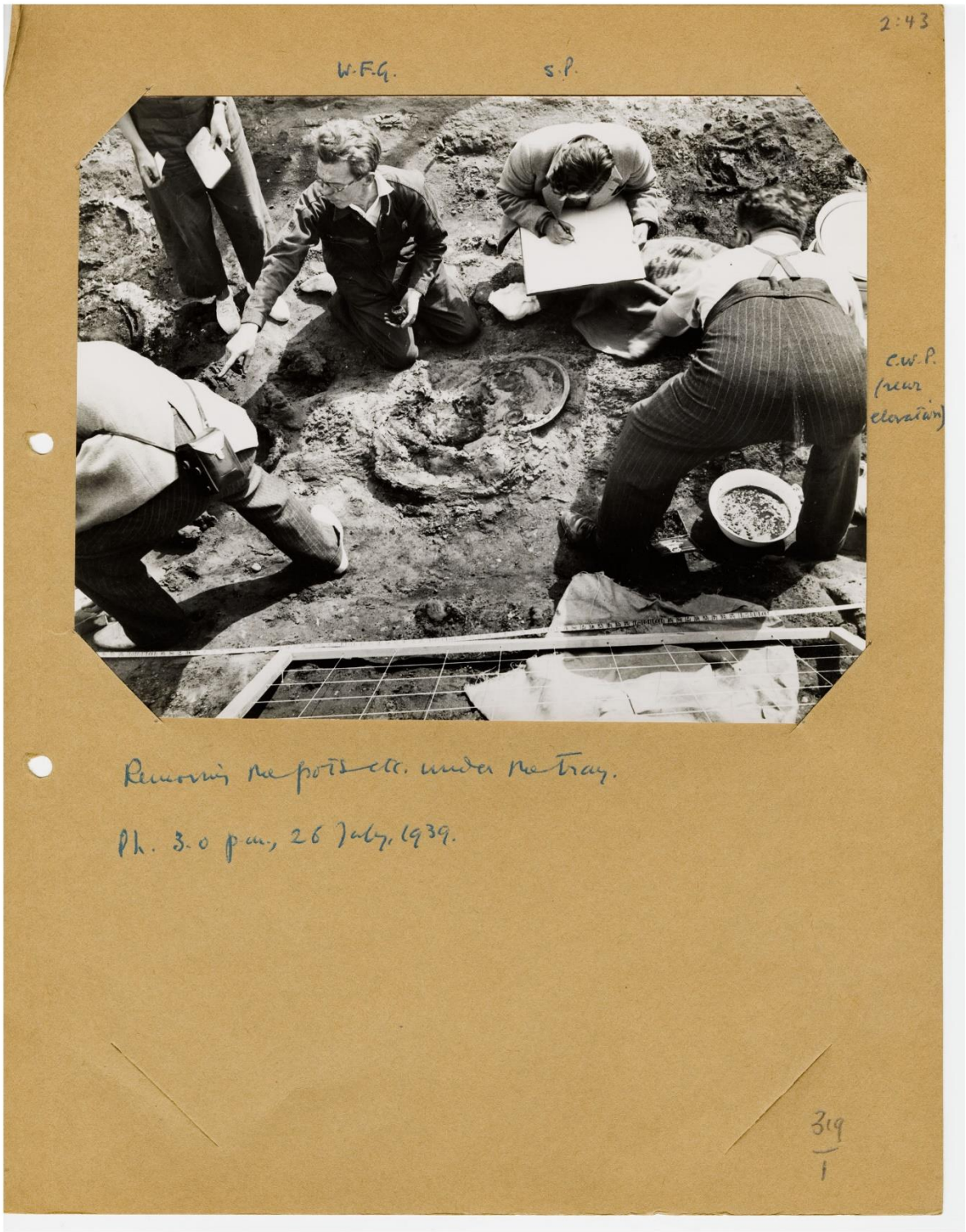


Figure 2.23 Rear Elevation. Print 2.43.

Nor does Crawford depict archaeological labour alone. In Print 2.51 (Figure 2.24) the blurred figure of Phillips steps from the chamber to the sandy platform where Peggy Piggott, Grimes and T.D. Kendrick are relaxing. The proportion of seated figures to those standing reinforces the impression that this is a photograph of leisure not labour.[188] Though not inside the burial chamber the figures depicted—with the exception of Pretty, Forsdyke and the 'Lady from Australia'—are still inside the trench sitting on the sandy platform situated towards the stern of the ship's imprint. This platform was clearly something of a social hub; providing both an access point into the chamber but also a space where those present could gather when not working. Crawford can be seen partaking in these informal gatherings—making tea with Peggy Piggott—in a print by an unidentified photographer slotted among Crawford's photographs in the British Museum archives (Figure 2.25).

Other visions of downright comedic incidents accompanying excavation punctuate Crawford's photographic archive, like the photograph of Crawford presenting Wheeler with a stuffed crocodile at Maiden Castle (Figure 2.26) or in Crawford's snapshots of so-called "Horizontal Excavators" (Figure 2.27).[189] Crawford's photographs are gleeful and irreverent; the camera is put to light-hearted, even downright humorous uses as much as being utilised for solemn studious purposes. In photographing archaeologists at leisure in this manner, Crawford presents a vital and engaging vision of the lived realities of excavation and by extension archaeology as a practice—complete with the daily and domestic acts such labour entails. For many years the assumption that archaeological knowledge was divorced from the conditions under which it was produced and from the people who produced it has meant that while these kinds of informal photographs were clearly being taken and circulated by archaeologists, they have gone overlooked in formal publications or have even been hidden away in personal collections rather than being deposited in official project archives (cf. Moro-Abadía 2006, 2009). The sequestering of photographs which demonstrate this personal side to archaeological practice has in turn led scholars to assume that such photographs do not exist, or that archaeological photography can only be understood through the analysis of the conventions of 'visual grammar' displayed in formal records, rather than asking how else photography might have functioned in archaeological practice.

[188] This photograph is worthy of comment for the ratio of women to men present. Peggy Piggott is notably wearing a smart suit—a radical change from the boiler suit she normally adopts (Julia Roberts, Pers.Comm). Edith Pretty can be seen in the wicker chair in the foreground, while the 'lady from Australia'—possibly Mrs Sherrington, whose presence that day is noted by Bruce-Mitford (1975:741)—reclines on the far side of the trench.

[189] The crocodile was subsequently buried, only to be re-excavated in 1985 (Joe Flatman and Nance Grace, Pers.Comm).

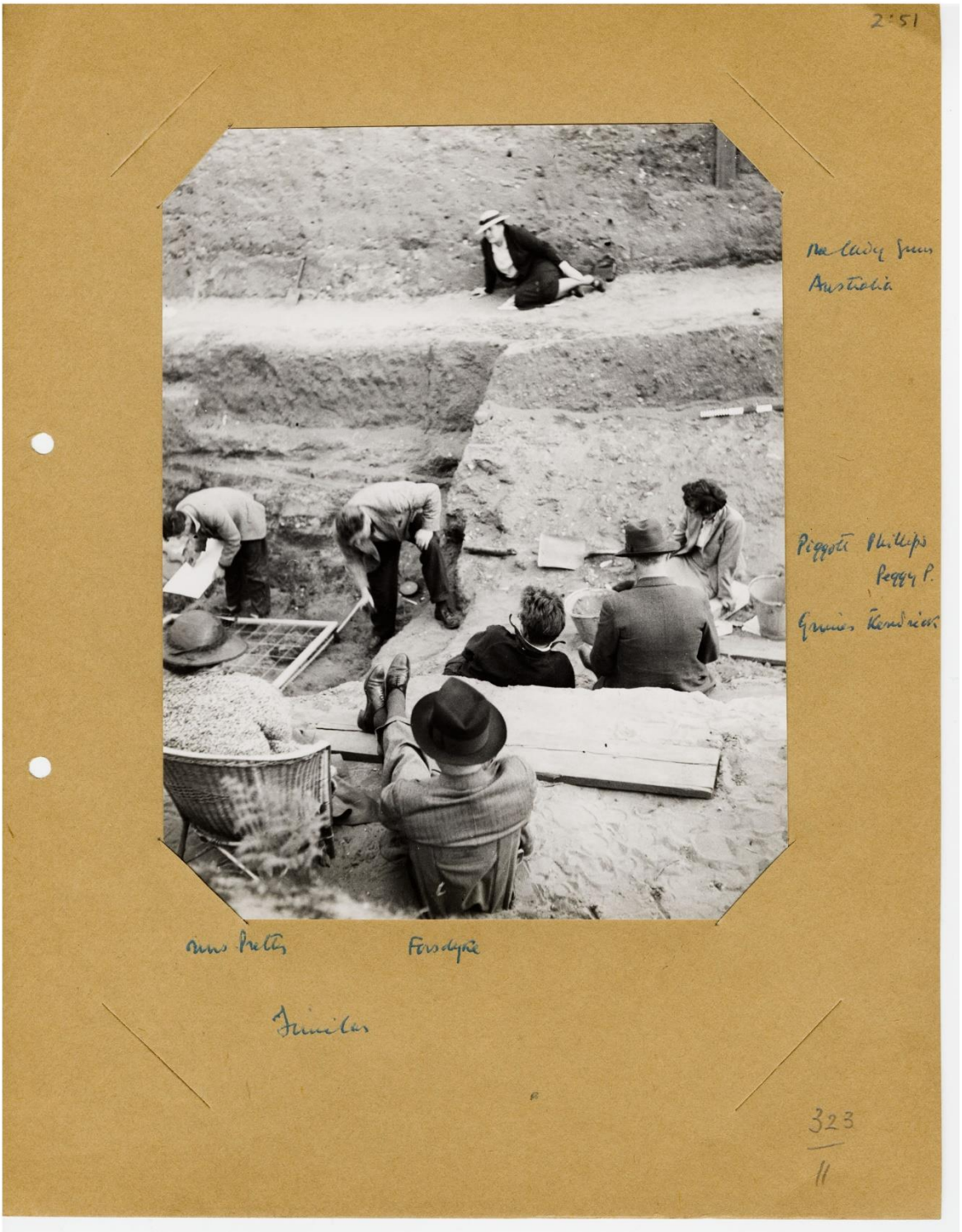


Figure 2.24 Relaxing at Sutton Hoo. Print 2.51.



Figure 2.25 Tea time at Sutton Hoo. Unnumbered print amongst Crawford's negatives. Photographer unknown. British Museum.

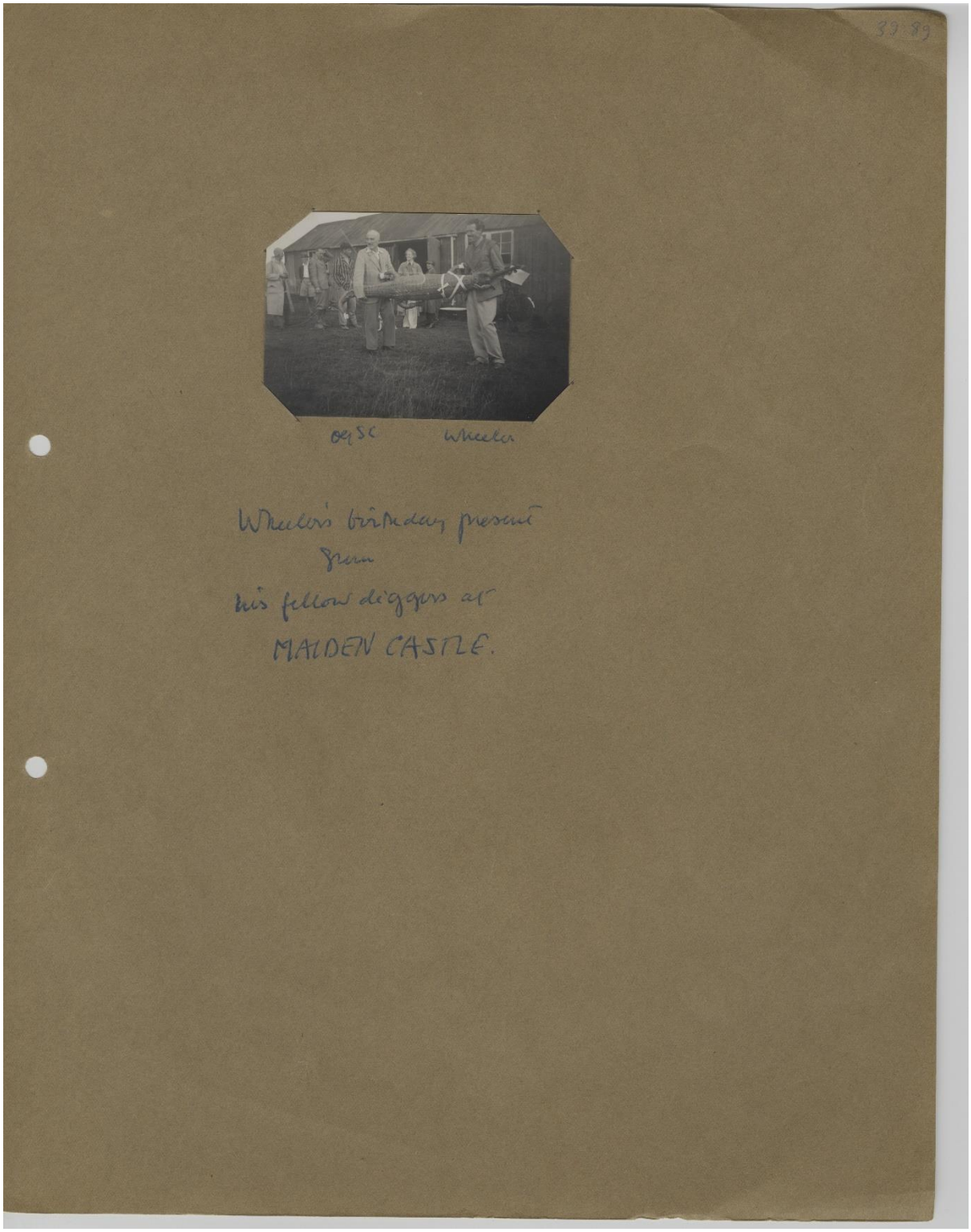


Figure 2.26 The Crocodile of Maiden Castle. Print 39.89.



Figure 2.27 Horizontal Excavators. Print 35.26.

Both Hauser (2007, 2008) and Bohrer (2011) have argued that using a camera implies some form of distancing between photographer and subject; mechanical reproduction and recording conventions supressing the artistic and emotional impulses of the photographer, and the temporal nature of the medium isolating the captured moment from the flow of social engagement. A rebuttal to this can be found in Morton's framing of the anthropologist E.E. Evans-Pritchard's documentation of the Nuer rite of *Gorot* as the work of a 'participant-photographer'; Morton charts Evans-Pritchard's photographic practice as alternating between periods of "intense photographic engagement" and periods where no photographs were taken (2009:261). In this formulation—a play on the anthropological paradigm of the participant-observer—is the clear recognition that the act of photographing can be a form of participatory social interaction.[191] Though Crawford may only rarely appear in photographs of the excavation it is vital to remember that he was both present and participating in the social landscape of the excavation, and it is possible to identify traces of this social presence.

Indeed, it is evident that the presence of Crawford's camera acted to stimulate social exchanges as in the photograph of Grimes looking directly into the camera (Figure 2.18), or in several photographs taken by Brown which depict Crawford—camera in hand—being watched by a gathered crowd (Figure 2.28) or in deep discussion with Grimes and Phillips (Figure 2.29). As previously noted Wheeler dictated that consultation between photographer and site-director was a crucial aspect of the photographic process (1954:154). I have yet to find a single photograph of Crawford at Sutton Hoo where he is not surrounded by colleagues. This is attested to in Crawford's own photographs; figures frequently crowd the frame suggesting not only a press of bodies in the close confines of the burial chamber but also a physical proximity of Crawford to his subjects that could only be attained due to both parties, photographer and subject, being comfortable in each other's physical space.

[191] There is a lesson to be learned from the anthropological anxiety over the role of the observer. If anthropologists recognise that the mere presence of an observer can be enough to disrupt established social dynamics, then I would argue that the presence of a camera/photographer is likely to also change the social dynamic of archaeological labour.



Figure 2.28 Crawford in action. Detail of Print A. Basil Brown Photo Album. Black Volume. British Museum.



Figure 2.29 Crawford in conversation. Print 83. Basil Brown Photo Album. Black Volume. British Museum.

Crawford's entanglement in this social landscape becomes even clearer in a consideration of the rhythm of his photographic activity. To use 26th July 1939 as an example; Crawford's first photograph of the day—depicting Peggy Piggott and Grimes cleaning the bronze cauldrons—was taken at 11am. This task took most of the morning before attention turned to the lifting of the Anastasius Dish in the afternoon (Phillips 1939d:739). Crawford took two photographs of the cleaning around 11am (Prints 2.125 & 2.126) before occupying himself by photographing the smaller gold objects emerging from the central area of the burial deposit (Print 2.108). His next five photographs (Prints 2.121, 2.79, 2.122, 2.123 & 2.124) were taken in a ten-minute burst three hours later—around 2:30pm—showing the freshly cleaned Anastasius Dish, cauldrons and chain-work. Once Crawford had finished documenting these objects, the excavators lifted the Anastasias Dish at 2:40pm (Print 2.32). This task accomplished Crawford swooped in to take two photographs (Prints 2.33 & 2.34) of the newly exposed area under the dish, before moving away to photograph the dish as it rested on a bed of moss (Prints 2.36 & 2.37). By the time Crawford returned from taking these photographs—around 3:00pm—the remaining excavators had gathered around the freshly revealed finds. This flow of activity continues for the rest of the afternoon in a similar manner; the excavators reveal a new cluster of finds—at which point Crawford steps in with his camera—once the finds are photographed excavation begins again.

The rhythms of excavation and photography are interlinked; the excavators responding to Crawford's movements as much as he responds to theirs. Given the small space in which the archaeologists had to work, negotiating paths around the chamber must have been a highly communal act—each archaeologist having to carefully manoeuvre around the others. Crawford's portable Rolleiflex enabled swift and reflexive responses to rapidly changing circumstances. Though Crawford's old mentor Reisner rejected the use of medium-format cameras for site photography, he did recommend the use of a "snap-shot" camera for photographing labourers (Der Manuelian and Reisner 1992:17). For similar reasons anthropologists of the interwar years also favoured smaller cameras, so that "incidents [could be] be seized as they occur" (Freire-Marreco, Haddon and Myres 1912:219). The Rolleiflex, operated at waist height with the photographer looking down at the ground glass offered plentiful opportunities for the covert observation of one's fellows (Figure 2.30).[193]

[193] In fact, covert observation with a camera was wholeheartedly endorsed by anthropologists at the time (Freire-Marreco, Haddon and Myres 1912:268). Crawford discussed techniques for this with Cecil Curwen (MS Crawford 68.5). I wonder how much of the suggestion that photography is socially isolating stems from an assumption that the photographer is covering their face when operating a camera, with the camera itself acting as a physical shield. Edwards notes that up until 1951 anthropologists were "advised against the use of



Figure 2.30 Crawford with his Rolleiflex Camera. Print 39.29

Crawford's photographs of his colleagues demonstrate an integration of photography into the social aspects of labour and leisure at Sutton Hoo, and the camera clearly played an active role in mediating and cementing relationships. To return to Figure 2.16, an analysis of the subjects of Crawford's photographs helps explicate the dynamics of this social landscape. Just three of the 124 photographs have as their sole subject local excavators with whom Crawford was personally unfamiliar. The figures that appear most regularly in Box Two do so in proportion to Crawford's familiarity with them. Grimes, Peggy and Stuart Piggott and Phillips—all of whom Crawford had longstanding relationships with—appear on 58 occasions in Box Two, with Grimes being the most frequent subject. Each of these individuals frequently appear elsewhere in Crawford's photographic and written archives. In contrast Forsdyke and Kendrick appear a collective total of nine times in Box Two, and though Kendrick appears in Crawford's papers after 1940, Forsdyke does not.

the 35-millimeter camera, held to the eye and thus masking the face, as 'undesirably obtrusive'" (E. Edwards 2011:162).

Crawford was not the only photographer to allow personal relationships to affect his photographic and archival practices. In two photo albums held by the British Museum, Brown frequently labels Spooner, Jacobs and Fuller (Figure 2.31) while Crawford, Peggy and Stuart Piggott and Grimes are never named (Figure 2.32). In fact, the only non-local excavator labelled by Brown is Phillips, with whom he developed an enduring friendship in the years following the excavation (Figure 2.33). In the inverse of Brown's labelling, Crawford only names those excavators whom he is personally familiar with, while characters like Fuller, Spooner—and quite regularly—Brown go unnamed and unlabelled (Figure 2.34). These labelling practices simultaneously describe and enforce the social divisions that existed during the excavation, explicitly locating both Crawford and Brown within very particular social networks. As noted in the introduction to this chapter, the politics surrounding the representation or exclusion of excavators from archaeological records has been the subject of much recent attention. If thus far I have argued that Crawford's presence can be detected behind the camera at Sutton Hoo, in the following section I make the case that archaeological photographs—even those which do not immediately depict excavators—can still reveal the presence of archaeologists. In doing so I argue that the movements of archaeological photographers are not the only prescribed movements which take place during an excavation. I explore the role of photography in developing excavation techniques and argue that the disciplinary practices and performances of digging were as much about creating identities of archaeologists –defining and demarcating lines between professionals and amateurs—as they were about the actual archaeology they uncovered.

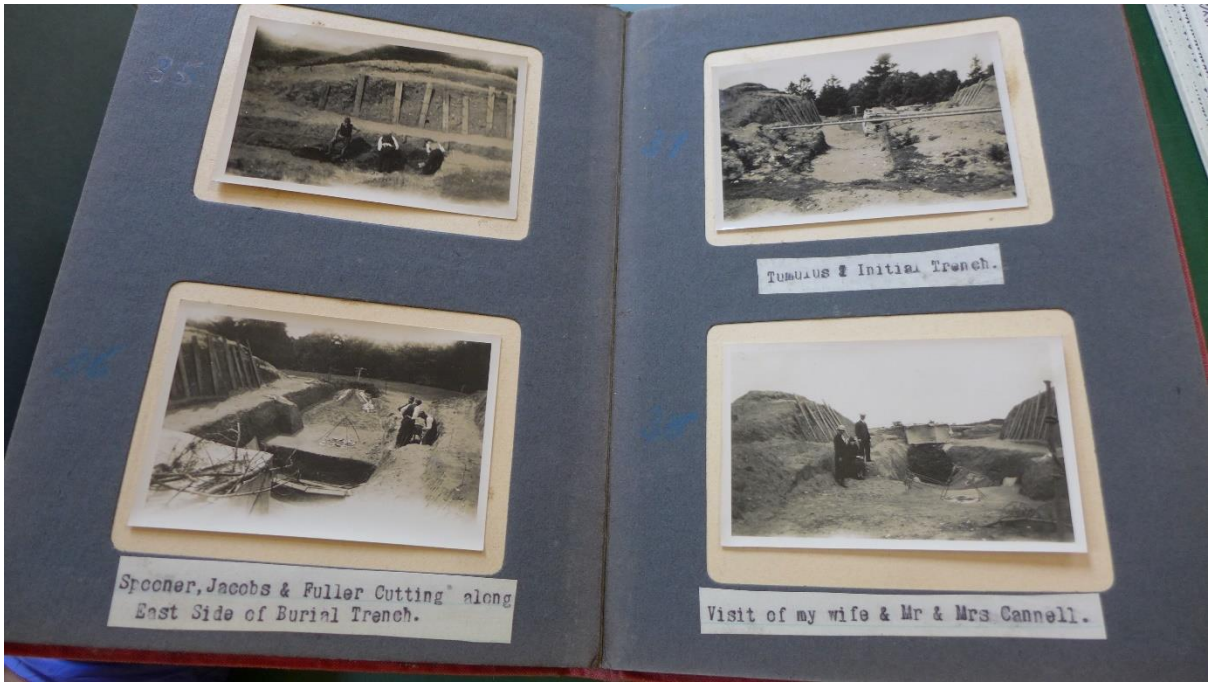


Figure 2.31 Spooner, Jacobs and Fuller at Sutton Hoo. Prints 35-38. Basil Brown Photo Album. Red Volume. British Museum.

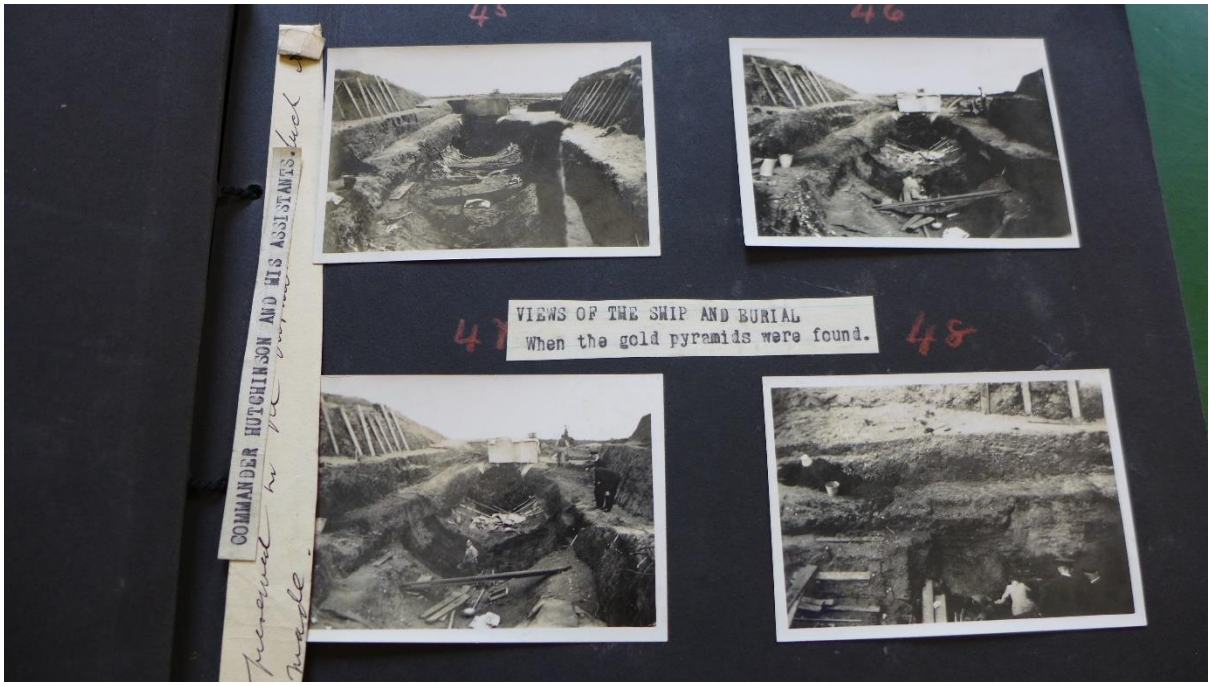


Figure 2.32 Unnamed archaeologists at Sutton Hoo. Prints 45-48. Basil Brown Photo Album. Black Volume. British Museum.

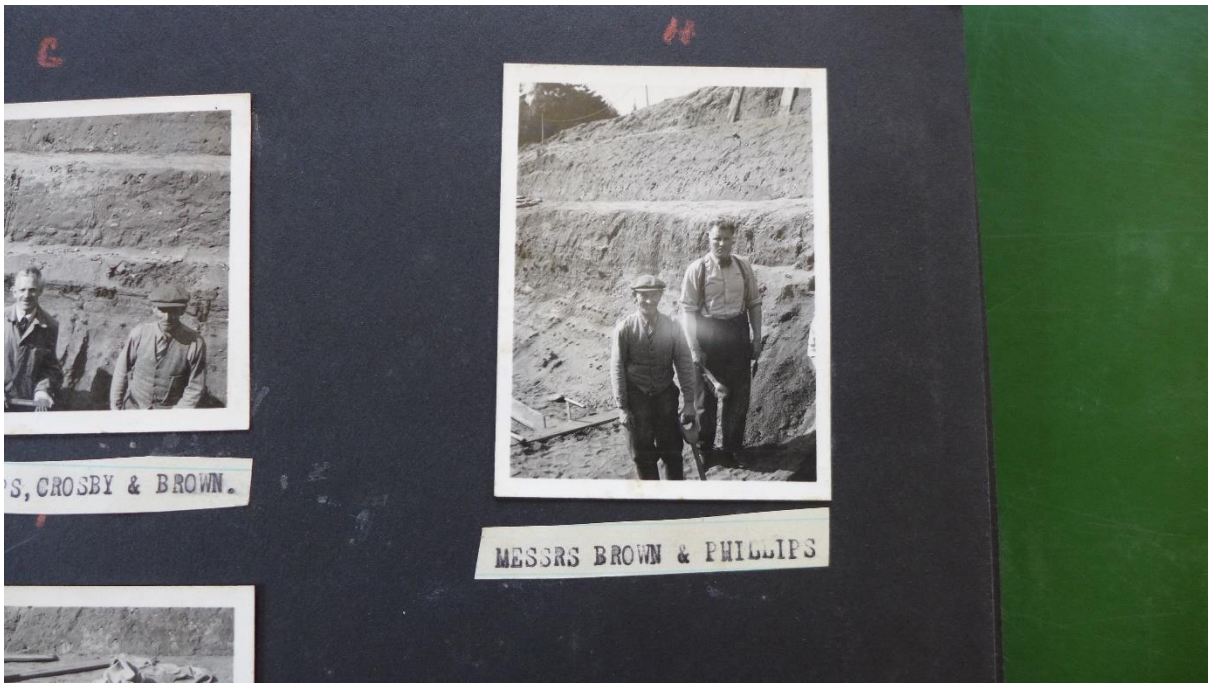


Figure 2.33 Brown and Phillips. Print H. Basil Brown Photo Album. Red Volume. British Museum.



Figure 2.34 Unnamed excavators with Brown second from left. Print 2.62.

2.3 Inscribing Archaeological Movements

In *Techniques of Archaeological Excavation* Barker argues "soil is a historical document which, like a written record must be deciphered, translated and interpreted" (1993:13). But soil is also experienced by the body: touched, smelt, felt, walked over and trowelled through. The buried land surface at Sutton Hoo is a bright yellow-orange—a centimetre or so thick—covering a much darker brown sand (Bruce-Mitford 1975:51). In the upper layers "a sparse turf competes with lichens and bracken" leaving roots so thick that one member of the re-excavation in the 1980s described the experience as "like trying to trowel a heap of dead Airedales" (Phillips 1940:62; M. Carver 2017:82). Between the roots the sand sits so loosely that it blows about if exposed to even relatively slight amounts of wind (Bruce-Mitford 1975:62). Multiple reports of the 1939 excavations reference the challenging conditions posed by the looseness of the soil (Crawford 1940:4; Phillips 1940:10; Grimes 1940:70). In the previous section I noted Crawford's playful documentation of his colleagues; the strange postures adopted and their inhabitation of the site in ways that blurred the boundaries between labour and leisure. Here I make the case that despite this apparent informality, techniques of moving through the challenging soil conditions at Sutton Hoo were highly politicised and reflect – to borrow a phrase from Henning (2018)— "a learnt and historicised practice" that was used to 'socially stratify' excavators (cf. Riggs 2019:171). It was this social stratification that fed directly into the extent to which archaeologists appeared in the resulting archives of the excavation.

Histories of archaeology generally present the development of excavation and recording techniques as the gradual progression towards 'scientific' principles (e.g., Daniel 1967; Barker 1993; cf. Moro-Abadía 2006). As Guha (2003, 2005) and Baird (2017) have intimated photography played a key role in encouraging the standardisation and repetition of chosen techniques of excavation (cf. Olsen et al. 2012:48). This is perhaps best exemplified in Mortimer Wheeler's publication *Archaeology from the Earth* (1954). Wheeler stressed that "there are many wrong ways" to dig and that contemporary excavators who did not adhere to his standards of practice "deserve the lash" (1954:15). Wheeler illustrated this in a set of two photographs entitled 'Chaos' and 'Discipline' (Figure 2.35) in which he contrasted the movements of two groups of excavators; those at a rival site "shovelling tumultuously in all directions" and those under his direction "working in an orderly procession" (1954:80). In the two photographs the 'scientific' nature of the 'disciplined' excavation is laid out visually, in clean straight lines and choreographed patterns of movement. Ingold has argued that straightness "has come to epitomise not only rational thought…but also…civility and moral rectitude" (2001:4). I return to the colonial and racist implications of Wheeler's photographs in the

following chapter, but here I develop the idea that certain kinds of movements through soil can elicit moral censure from archaeologists.[194]

The antithesis of scientific excavation is 'grave-robbing'; a term consistently applied in histories of Sutton Hoo to describe interventions with the mounds conducted between the sixteenth and nineteenth centuries (e.g., Phillips 1940:11; Care-Evans 1986:12; M. Carver 2011:27).[195] The earliest of these explorations consisted of a series of vertical shafts driven into the centre of each mound.[196] By the nineteenth century excavation tactics had changed, and the preference for vertical shafts had been replaced by a penchant for cutting trenches about six-feet wide horizontally through each mound at ground level (Figure 2.36). Crawford and his contemporaries looked unfavourably on these techniques, with Crawford arguing that such 'unscientific' ventures did "irreparable harm" (1953:30). Equally vocal criticisms were voiced by Wheeler who described such ventures as "tantamount to crimes" (Wheeler 1954:13-15). These criticisms reference the paradigm that excavation is destruction—an unrepeatable experiment which if improperly recorded destroys the context through which the past can be understood—and carry with them the threat of moral and social censure for those who adopted what came to be perceived as illegitimate techniques of moving through soil (cf. Wheeler 1954:15; Barker 1993:1).

Both Cookson's emphasis on 'cleaning' a site and Wheeler's visual condemnation of 'chaos' were part of a broader spectrum of visual conventions that changed the way in which archaeologists moved; performing scientific practice for the camera in order to demonstrate legitimate archaeological credentials. This conflation of an excavation site that looked 'clean' with the practice of rigorous scientific investigation can be identified in Wheeler's suggestion that photographs of a neat trench "gives the spectator a justifiable trust in the orderliness and accuracy of the work" (1954:200) and in Phillips' appeal to photography as a "witness" to his successful operations at Sutton Hoo (1940:10).[197] Here the camera is called upon as a moral arbiter, a talisman to protect against accusations of grave-robbing. Though some measure of 'cleaning' and systematisation is of course necessary these practices could be taken to extremes e.g., Cookson's warning that even a single blade of grass lying out of place could "ruin" a photograph (1954:14). Consequently,

[194] See also Chadha (2002) for analysis of colonialism and militarism in Wheeler's photography.
[195] Blouin (2018) has noted a similar issue in the use of the term "grave-robbing" to designate excavations undertaken by archaeologists who do not hail from European or North American backgrounds.
[196] Mounds 1,2,5,14 and 17 were approached in this manner (M. Carver 2011:26). Though an attempt was made upon Mound One ploughing had eroded the shape of the mound to the extent that "its summit no longer lay directly above the burial chamber" and so the diggers were frustrated in their attempts to reach the burial chamber (M. Carver 2011:26).
[197] There is an extreme irony at play in the concept of clean dirt, that is reminiscent of Mary Douglas' suggestion that which we call dirty is "essentially disorder" (1966:2).

photographs of seemingly uninhabited yet scrupulously cleaned trenches can be understood not as the erasure of archaeological labour, but as the inscription of one's archaeological credentials into the soil.[198] Though neither Wheeler nor Phillips appear in the photographs they refer to their presence as site directors can be detected nonetheless. It is felt in the straight lines of their trenches and the perfectly cleaned soil. This slippage between excavator and trench is apparent on the cover of Phillips' autobiography (Figure 2.37) which shows a portrait of Phillips hovering over a photograph of the excavations at Sutton Hoo. [199]



Figure 2.35 Chaos and Discipline. Plate Four in Wheeler (1954).

[198] Ingold defines inscription as movements which adhere to "some pre-existing pattern" (1993:156).
[199] This equation of self and trench has also been observed in more contemporary ethnographies of excavation (e.g., Yarrow 2006; Van Reybrouk and Jacobs 2006) but these ethnographies do not the role of photography in this process.

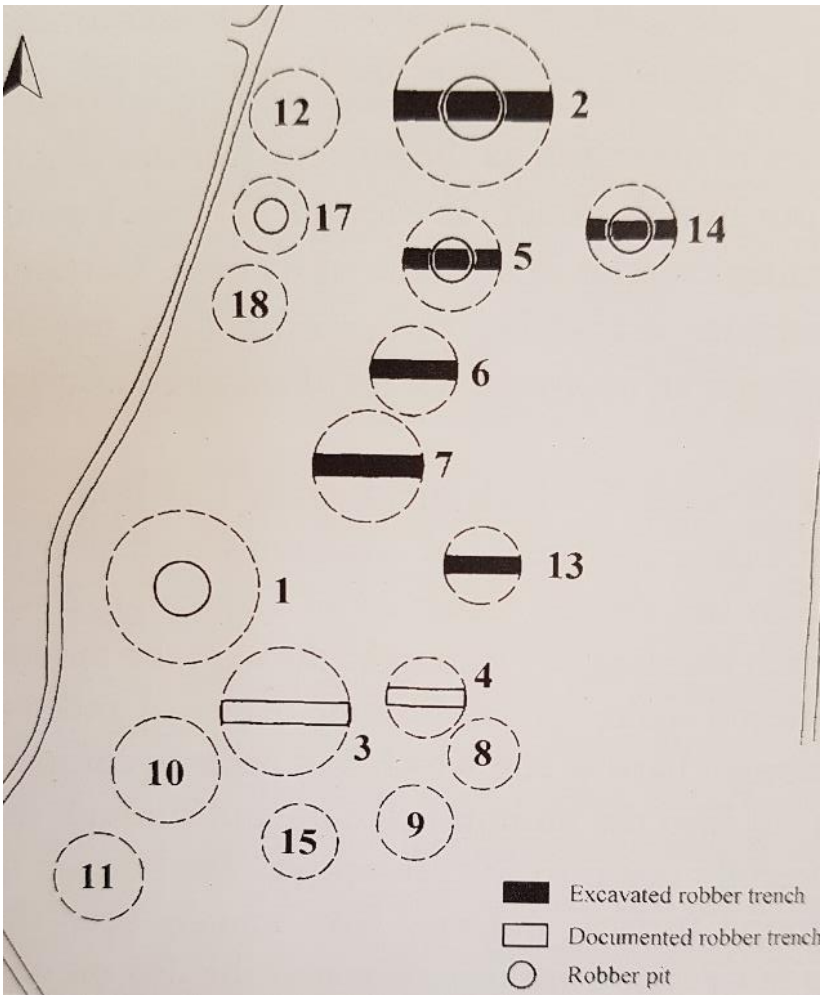


Figure 2.36 Diagram showing the different methods of excavation applied to each mound at Sutton Hoo. Figure 3.3 in M. Carver (2017).

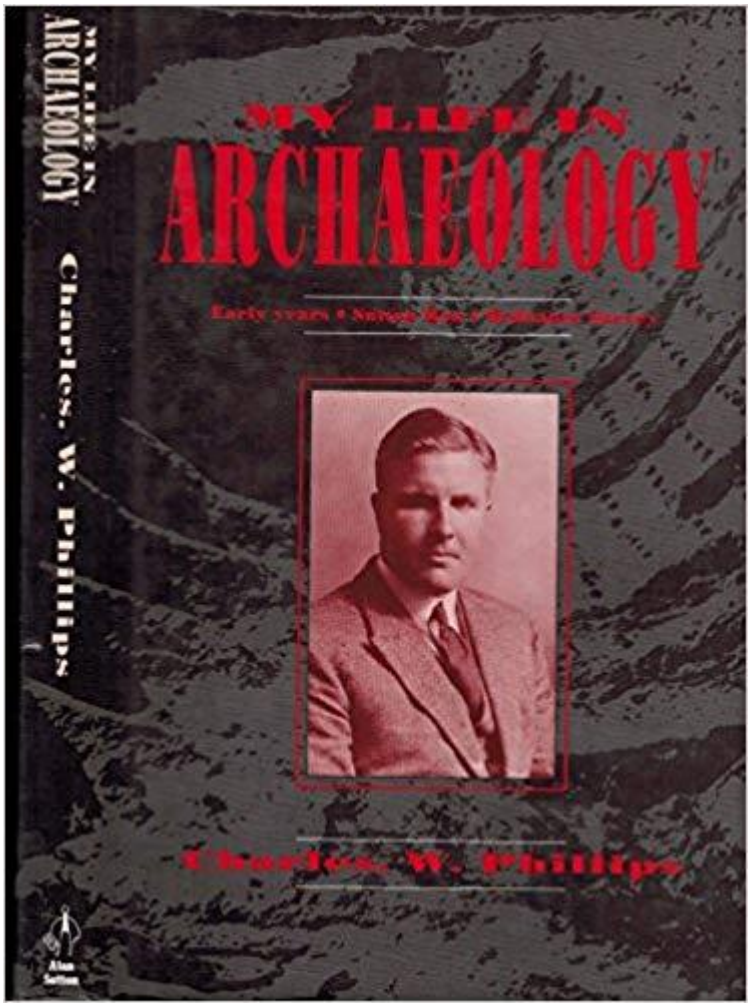


Figure 2.37 The Cover of C.W. Phillips' autobiography. Phillips (1987).

This association between archaeological social status and trench is borne out in the movements of the excavators at Sutton Hoo. Though Basil Brown played a key role in the initial excavation of Mound One he only appears in five photographs in Box Two—and is only explicitly labelled by Crawford once (Figure 2.38). In the print, Piggott, Forsdyke and Grimes prepare to lift the iron stand as Phillips and Kendrick stand by with a wooden plank. While Phillips and Kendrick approach the edges of the burial chamber Brown lingers behind; eyes fixed on the scene unfolding before him yet set back from it. Crawford does not take a single photograph of Brown inside the burial chamber. In each of the instances in which Brown appears he is always on the periphery of the action—watching but not participating. This is most evident in 2.115 (Figure 2.39) in which the excavators crowd around the spot where the Anastasias dish has been lifted; even Grahame Clark—a temporary visitor to the site joins the crush—yet Brown hovers in the background. A similar story emerges from Brown's own photographs of the excavation; in the early stages of the excavation Brown has full run of the site regularly taking photographs from inside the imprint of the ship, in later photographs Brown tends to favour wider-angled shots of the trench taken from outside the central burial chamber. Just as Crawford's tight compositions reveal both his physical and social proximity to his friends and colleagues, Brown's photographs speak of a position of exclusion. This relegation of Brown to the side-lines was not perpetrated by Crawford alone but can be traced in multiple written accounts of the excavation (e.g., Crawford 1940; Grimes 1940). This erasure of Brown was so complete, that in 1974 Bruce-Mitford was to comment "nothing has been heard from the very man who began the excavation" (1974:141). Brown certainly left little impression upon Crawford; in 1953 while preparing notes for his autobiography Crawford wrote to Phillips asking to be reminded of the name of "the local man working at Sutton Hoo" (MS Crawford 107.85).

It is only in recent decades that attention has begun to shift back to Brown's role in the excavation—led in the main by members of the Sutton Hoo Society. Markham (2002) and Durrant (2004) have both published accounts of the excavation that frame Brown's exclusion as a case of the egos of the "archaeological establishment" forcibly ousting "amateur" Brown (Durrant 2004:1).[201] While there certainly were political machinations at play, Durrant and Markham's accounts are an oversimplification of the events which transpired. In 1939 soil came to stand for something symbolic; the political tensions between local and national archaeological associations, between amateur antiquarian and 'Dirt Archaeologist'. But so too did the loose sands of Sutton Hoo pose very genuine technical difficulties and even danger. In working across the photographs and accounts of

[201] Note that this local society holds a lingering grudge in regards to the handling of the 1939 excavation. This characterisation is also complicated by the fact that Phillips self-identifies as an "amateur" archaeologist in his own auto-biography. Moreover, it must be remembered that archaeology was still in the formative years of forging a professional identity at this time.

the excavation it becomes clear that the extent to which each archaeologist performed the embodied movements of 'scientific' archaeology for the camera, combined with collective assessments of the relative skill level of each excavator determined their eventual presentation in the photographic record. Just as Crawford's movements around the site reflected and established his social position within the excavation team, so too did the performance of scientific archaeology for the camera establish hierarchies amongst the excavators.

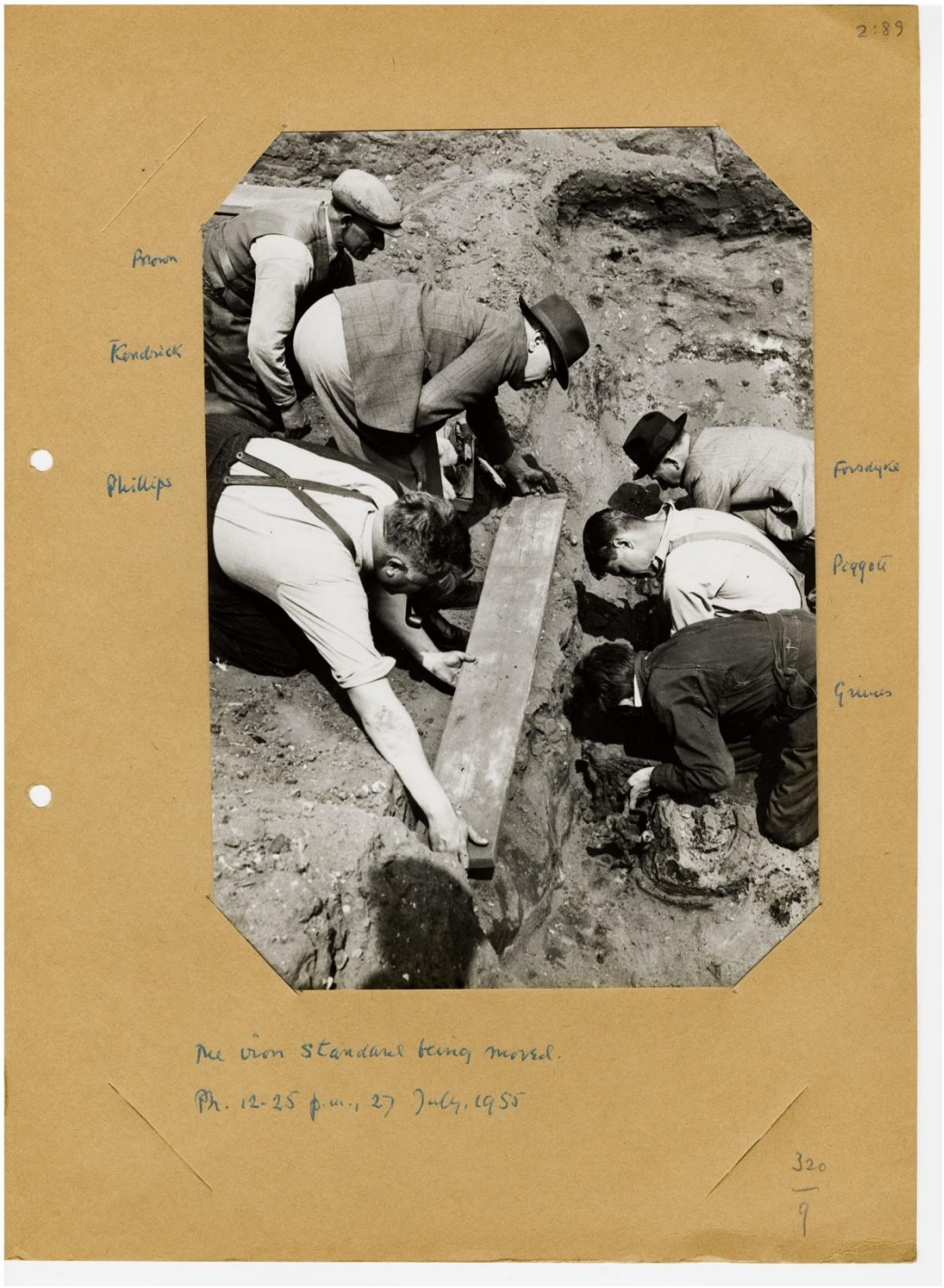


Figure 2.38 Basil Brown during the lifting of the stand. Print 2.89.



Figure 2.39 Brown on the periphery. Print 2.115.



Figure 2.40 Antiquarian barrow digging. Plate 1 in Wheeler (1954).

When Brown first approached Mound One in May 1939 he began by striking a six-foot wide trench across the barrow at ground level using "a coal shovel lashed to a long pole" to "slice the sand horizontally" (Brown 1939a:156; cf. M. Carver 2011:31).[202] Though M. Carver has noted that Brown considered his methods to be "state of the art", Brown's approach had more in common with nineteenth century methods than the cutting-edge techniques developed by Tessa and Mortimer Wheeler at sites like Verulamium in the 1930s (2011:30). The resulting trench with steep and looming walls, would have borne an uncanny resemblance to a figure reproduced in Wheeler's *Archaeology from the Earth* which mocks the antiquarian approach to barrow digging (Figure 2.40). Neither did self-taught Brown meet contemporary recording standards; in his labelling of diagrams and photographs he regularly switched between alphabetical and numerical systems without any warning or explanation—creating a system that is largely impenetrable to an outside observer.

[202] As it happens the ship itself was positioned almost exactly along this East-West orientation (Phillips 1940:13).

Bruce-Mitford notes that Brown also neglected to make "a survey of the mound…prior to excavation" and in dumping spoil to either side of his trench Brown inadvertently obscured the original scope of the barrow (1975:145-6).

Beyond this, Brown's technical skill has been called into question by Richard Dumbreck, who worked alongside Brown at the 1937 excavation of Stanton Clare. Dumbreck recalled that Brown "would trowel furiously, scraping the spoil between his legs and at intervals he would stand back to view progress and tread in what he had just loosened"; as proof of these accusations Dumbreck offered "some snapshots" of the excavation "which are somewhat horrific to modern eyes" (Dumbreck 2004:20-21). Photographs were not only called upon to reassure the viewer of a certain standard of scientific behaviour but they could be used as evidence to condemn. Many of Brown's photographs buck visual conventions, featuring footprint trails (Figure 2.41) or roughly cut trench edges. Brown also appears in Box Two standing on a small pile of spoil (Figure 2.42). In failing to meet both contemporary archaeological standards for excavating and visual conventions for documenting his work, Brown set himself apart from the wider archaeological community. Though one cannot help but have sympathy for self-taught Brown, photographs taken by Brown himself evidence the overhanging edges of soil that teetered over excavators as they worked. Two days after visiting the site for the first time in June, Phillips wrote to Christopher Hawkes suggesting that over 1000 tons of earth would have to be moved before the site could be deemed safe (Letter from Phillips to Hawkes. 8 June 1939. Prehistoric Society Archives). It was not just the excavators who were put at risk but the archaeology too. The delicate imprint of the ship in the sand was highly fragile, and Phillips noted "one heavy fall…may wreck the whole thing" (Letter from Phillips to Hawkes. 8 June 1939. Prehistoric Society Archives). Phillips was right to worry; a total of six landslides took place at the site—including one on 30th May in which Brown narrowly avoided being buried by over ten tons of earth.[205]

But legitimate concerns over safety were also entangled in political machinations. Brown's association with Maynard and Reid-Moir through the local Ipswich Museum was likely to have added to the tension. Phillips was openly dismissive of Reid-Moir describing him as "rash" and writing "I knew Maynard's basic incompetence from personal experience" (1987:51; 1983:10).[206] A few years previously both Maynard and Reid-Moir had been heavily involved in the leadership of the Prehistoric Society of East Anglia. Though a local society by name, members regularly met in London and by the inter-war period the club's membership was national rather than local (Rachel Pope,

[205] Landslides are recorded in the site diaries for 16 May, 30 May, 1 June, 20 July, 22 July, 28 July.
[206] Grahame Clark also pronounced Reid-Moir "a man of limited education and devoid of formal qualifications" (cited in Stout 2008:39).

Pers.Comm). In 1935 Crawford and Phillips—in league with Grahame Clark, Stuart Piggott, and Christopher Hawkes—engineered a coup of the society; ousting Reid-Moir from leadership and placing Gordon Childe at its head (Stout 2008:38).[207] Though both Maynard and Reid-Moir retained membership of the society the incident remained a sore point for many years; Durrant notes that even in the 1950s Phillips would write to Brown before visiting the Ipswich Museum to check that Maynard would not be present when he arrived (2004:23).[209] In his autobiography Phillips recalled the irony that the reason for his initial visit to Sutton Hoo on the 6th June 1939—which eventually led to his appointment as director of the excavation—was on account of being in the area due to his struggles to get Maynard to allow him access to papers from the Prehistoric Society archives (1987:70).



Figure 2.41 Footprints in the soil. Print 32. Basil Brown Red Photo Album. British Museum.

[207] See Stout (2008).
[209] In the 1935 issue of the *Proceedings of the Prehistoric Society* Maynard is listed as Secretary, and Reid-Moir as a member.



Figure 2.42 Standing on spoil. Detail from Print 2.87.

Following Phillips' emplacement as site-director Brown's subsequent role is perhaps best described as that of a foreman: a position Wheeler described as that of "best workman on site" (1954:162). In the letter to Christopher Hawkes, Phillips acknowledged Brown's skill while expressing some concerns;

> [A]lthough I do not want to criticise Brown, who has done the job wonderfully well so far, I am convinced that this part of the job must be done under expert supervision…please impress on [Maynard] the absolute necessity of not allowing the grave area to be touched without supervision (Letter from Phillips to Hawkes. 8 June 1939. Prehistoric Society Archives).[211]

While Spooner, Jacobs and Fuller were set to the task of widening the trench—work that while physically demanding required relatively little interpretative skill—Brown was set the task of clearing an overhanging section of soil to reveal traces of the burial chamber roof (Phillips 1939a:736). This reassignment of work is reminiscent of Brown's own insistence that Fuller and Spooner should not

[211] Crawford praised Phillips for blocking Brown from the burial chamber as "rescuing the dig" (Letter from Crawford to Phillips. 12 August 1939. Phillips Correspondence File 719/6. British Museum). Though Crawford did elsewhere accept the potential use for "one intelligent navvy who has dug extensively in the neighbourhood" (1921:210).

participate in the more delicate stages of uncovering the ship rivets in the early days of the excavation.[212] Clearly Brown was recognised as possessing more skill than the average labourer, yet not enough refinement to be entrusted with the delicate task of removing finds from the burial chamber.[213] In a continuation of this separation of Brown from the main work in the burial chamber it seems that at least on one occasion Brown was co-opted into assisting Crawford's photographic efforts. Print 2.69 depicts the head of the iron stand against a checked white sheet background. Just visible on the right side of the print is the vague suggestion of Basil Brown's wellington boots (Figure 2.43).[214] Whereas in Section 2.2 I argued that Crawford used photography as a means of participating in the rhythm of activity at the excavation, here Crawford's status as photographer allowed him to direct the movements of others and to depict them in various states of participation or exclusion. In the resulting photographs Brown becomes an onlooker, never an excavator in his own right. Brown's personal connections to Reid-Moir and Maynard combined with his failure to adopt the 'scientific' and visual conventions of excavation directly affected the extent of his involvement in the excavation—and his representation in the subsequent photographic record generated by Crawford.

[212] "I am unable to let the men do this work owing to the risk of damage" (Brown, cited in Bruce Mitford 1974:157).

[213] Wheeler wrote that "the extraction of delicate objects from the earth demands the highest skill, patience and knowledge available, and is not lightly delegated" (1954:125).

[214] Brown is the only person on site who wore wellingtons, he can be seen wearing them in Print 2.115 (Figure 2.39).



Figure 2.43 Brown's wellington boots. Print 2.69.

As a post-script to these entanglements of archaeological politics, presence, soil and photography one further incident from the 1939 excavation requires consideration; a sherry party held by Edith Pretty on the evening of the 25th July. In preparation for the event a viewing platform had been prepared at the top of one of the spoil heaps. However, when Maynard attempted to guide guests to the platform a confrontation arose; with Phillips ordering Maynard and his retinue to vacate the area, and Maynard shouting back that he would not be ordered off "Suffolk soil" (Markham 2002:34). Whether Phillips' motivation was—as he claimed— concern over the stability of the platform, or a determination to avoid the inevitable publicity that would follow any public revelation of the richness of the finds, the incident further damaged relationships between the local archaeologists and Phillips' team. There had been rumours that something was afoot in Woodbridge, but for the most part Phillips' team had managed to keep the details under wraps. Following the party leaked reports incited a media frenzy with increasingly desperate journalists hiring boats and even planes in the hope of getting close enough to photograph the site (Markham 2002:44-46; M. Carver 2017:24). The leak greatly riled Crawford who had hoped for complete secrecy until the publication of the special issue of *Antiquity*. In a three-page rant to Phillips he called the garden party "outrageous", Maynard and Reid-Moir's actions "comic", and counselled Phillips to "Ignore the BBC or blackmail them" (Letter from Crawford to Phillips. 12 August 1939. PHILLIPS CORRESPONDENCE FILE 719/6. British Museum).

Reid-Moir wrote a letter of complaint to the Office of Works, stating that as a result of Phillips' behaviour the reputation of both the British Museum and the Office of Works was "as mud in these parts" (Markham 2002:42). This was a pertinent choice of phrase. Soil was the medium through and in which conflicts of archaeological status and identity were set out and battled over. The mounds on Edith Pretty's property had been known of—and for the most part largely ignored since the sixteenth century—but the excavation provided a moment of rupture where tensions between archaeological factions could come to the fore. The trench at Sutton Hoo was a declaration of presence on a sculptural scale—a monument to the seemingly foreign powers at work in Suffolk soil.

2.4 From Inscription to Incorporation

By 25th July 1939 the trench was no longer a narrow cut through the burial mound, but an imposing open space approaching 98 feet in length and 40 feet in width (Figure 2.44). On the north and south sides of the trench stepped terraces were cut, somewhere between chest and head height. The eastern end of the burial chamber was delineated by a wall of earth that rose to the knee (Figure 2.45), leading to a wide sandy platform used as a storage area. A ladder was used to descend from the lower terrace to the sandy platform (Figure 2.46). The western end of the chamber was accessed via a series of wooden planks forming makeshift steps (Figure 2.47). Though excavation might normally be associated with digging down into the soil hollowing out a negative space in the ground, these actions were accompanied by the building up of a complimentary system of walkways, steps and platforms around the outline of the ship.[219] The creation of this built environment is not the primary purpose of excavation, but arises out of archaeological labour all the same and its presence may also be felt in Crawford's photographs.

In moving and redistributing tons of earth archaeologists actively shape the stage upon which they perform their labour. Soil is not a medium that passively submits to archaeological ministrations; its material affordances constrain the ways that archaeologists can dig. A key example of this is the well documented number of landslides at the site. The risk was exacerbated by Brown's decision to pile spoil at both sides of his initial trench. When Phillips took control of the excavation, he noted that his options were limited by; "the very perishable indications of the form of the ship, the friable nature of the soil [and] the depth of the excavation [made by Brown]" (Phillips 1940:10). Consequently, much time was devoted to widening the trench in order to mitigate the risk of collapse. Making the

[219] In conceptualising the trench as a combination of positive and negative space, I draw on two ideas of Ingold's set twenty years apart. In 'The Temporality of Landscape', Ingold notes the "absurdity" of trying to establish a division between hills and valleys (1993:166). A hill cannot be a hill without a valley, and neither can a valley be a valley without a hill. In much the same way the excavated and built spaces of the Sutton Hoo trench are integral to each other. The second Ingoldian insight I draw on is his insistence that negative space must be considered as much a part of the built environment as more traditional forms of architecture (2011a:23-24).

site safe was not a simple task, on several occasions Phillips recorded in his excavation diary that areas of the site had to be quarantined off until they could "be approached with more ease and safety" (Phillips 1939b:738). The trench was complicit in its own creation. In making this case I draw on archaeologies of architecture which argue that structure "[emerges] out of the rhythm and tempo of occupation" (Baird and McFadyen 2014:27; Baird 2012; McFadyen and Vale 2014). Though the occupation of Sutton Hoo lasted for a few short weeks of excavation the same process is at work.

Despite the prevailing emphasis on the importance of order and structure in the planning and execution of an excavation, not all processes that contribute to the formation of a trench are planned.[220] The evolution of the site is evidenced in the contrast between Brown's early photographs of the trench, and those taken by Mercie Lack and Barbara Wagstaff at the tail end of the excavation in August 1939 (Figure 2.48, Figure 2.49 & Figure 2.50). In attending to the serial and sequential relationships between each photographic collection that makes up the official excavation archive—and not just to the relationships within Box Two—the changes wrought by the ongoing inhabitation of the site become apparent.[221] Though some of these interventions were conscious responses to challenges posed by the fragile sand others developed in line with the daily minutiae of moving around the site. Much like Richard Long's *A Line Made by Walking* (1967) (Figure 2.51) traces of repeated patterns of human movement can be found in Crawford's photographs of the entry points into the burial chamber at the west and east ends. Throughout the course of the week Crawford was present, these sections of the trench are captured by the camera becoming gradually compounded by each step in and out of the burial chamber.

The material structure of the trench reflected the needs and movements of the archaeologists as much as the demands of the archaeological record. Walkways developed to allow for paths through the site, spoil heaps grew out of the ministrations of bucket and wheelbarrow. Though the site arises out of archaeological labour, the movements of the archaeologists in turn arise out of the material conditions of the site. These movements are fundamentally constrained by the material properties of soil, a bucket cannot be lifted if it is overfilled, spoil heaps can only grow so tall before collapsing, thus excavator and excavated act upon each other. This process might best be described with reference to Ingold's definition of incorporation; "a movement wherein forms themselves are

[220] This bears a distinct similarity to the formation of 'desire paths'. See Chapter Four for Crawford's experiences of walking old ways and cattle tracks in southern England which "are not made or designed but *grow* in response to the need of going from one place to another" (Crawford 1953:60).
[221] Much like the way in which upon meeting someone for the first time in months it is easier to see how they've changed, the temporal gaps between these photographs make the changes to the trench easier to see (cf. Ingold and Hallam 2014).

generated" where the potential range of human movements develop in response to the constraints of their environment (1993:157). Though Riggs (2017) has characterised archaeological labour as collective effort, as yet there is little recognition of the role which the other-than-human might play during excavation and how traces of this other-than-human presence might also shape the formation of archaeological archives and photographs.[222]



Figure 2.44 The trench at Sutton Hoo. Collage made from Crawford's photographs by the author.

[222] Cf. recent literature in anthropology on non-human labour e.g., Besky and Blanchett 2018; Barua 2018.

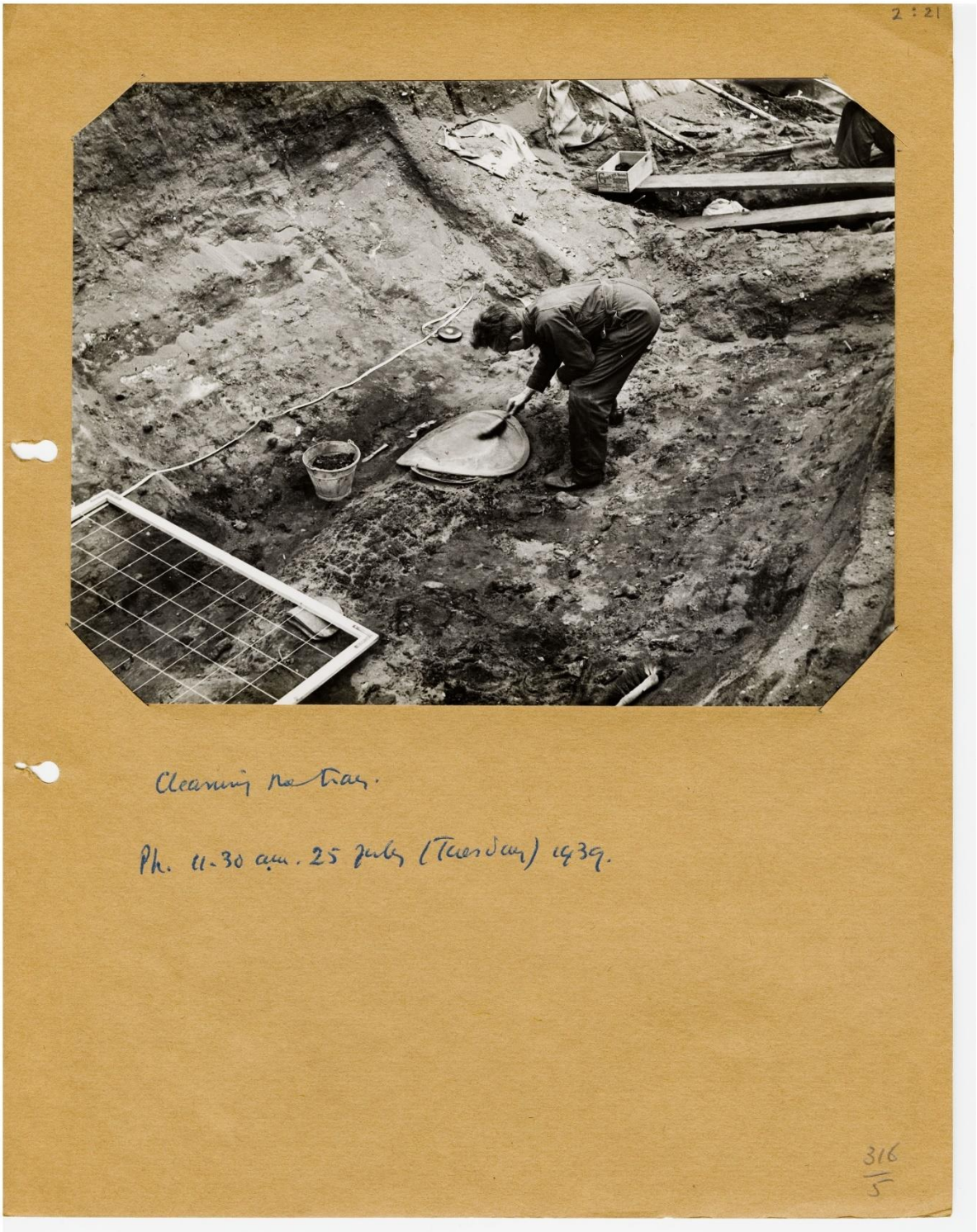


Figure 2.45 Eastern entrance to the burial chamber trampled down by footprints. Print 2.21.

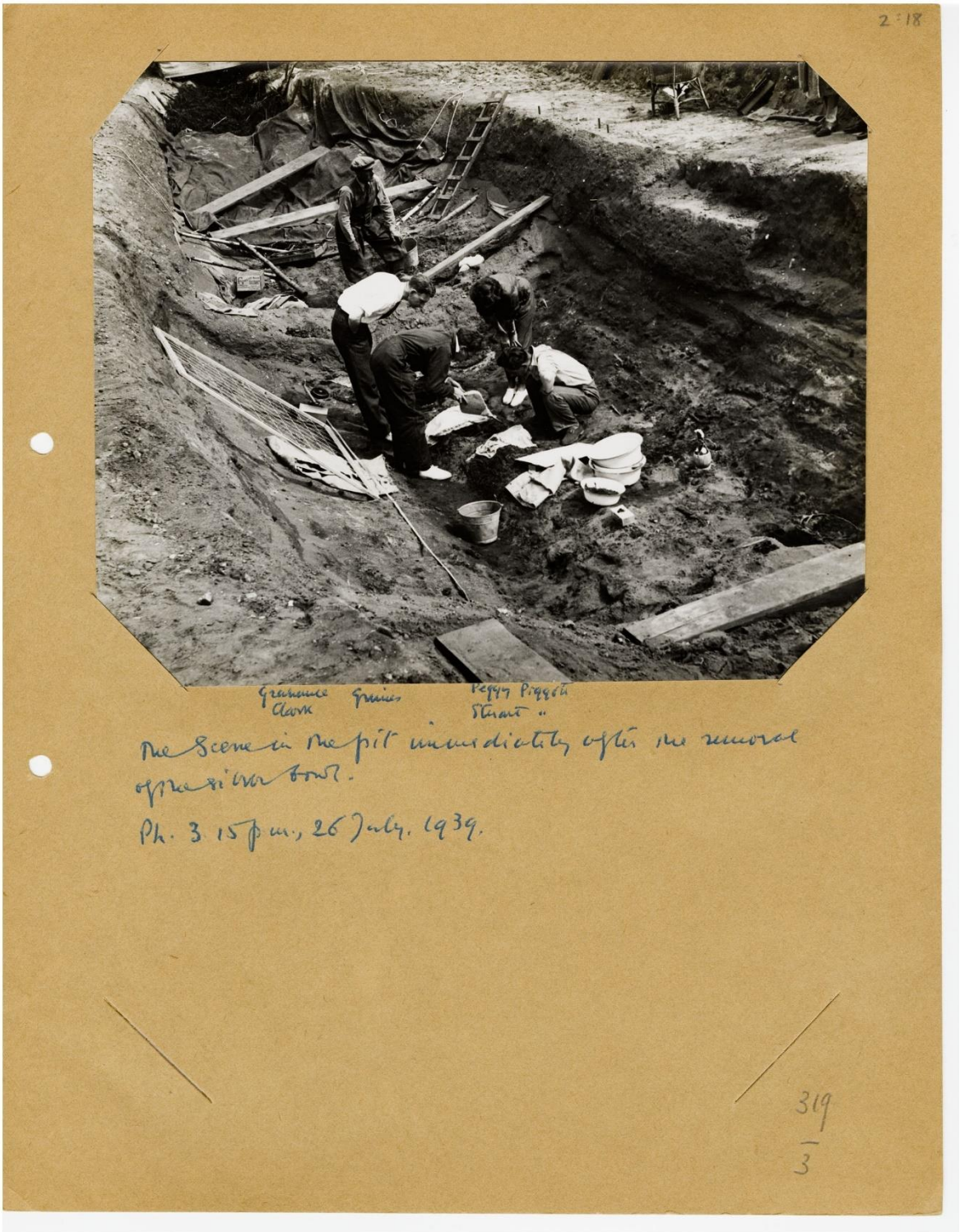


Figure 2.46 Ladder used for access. Print 2.18.

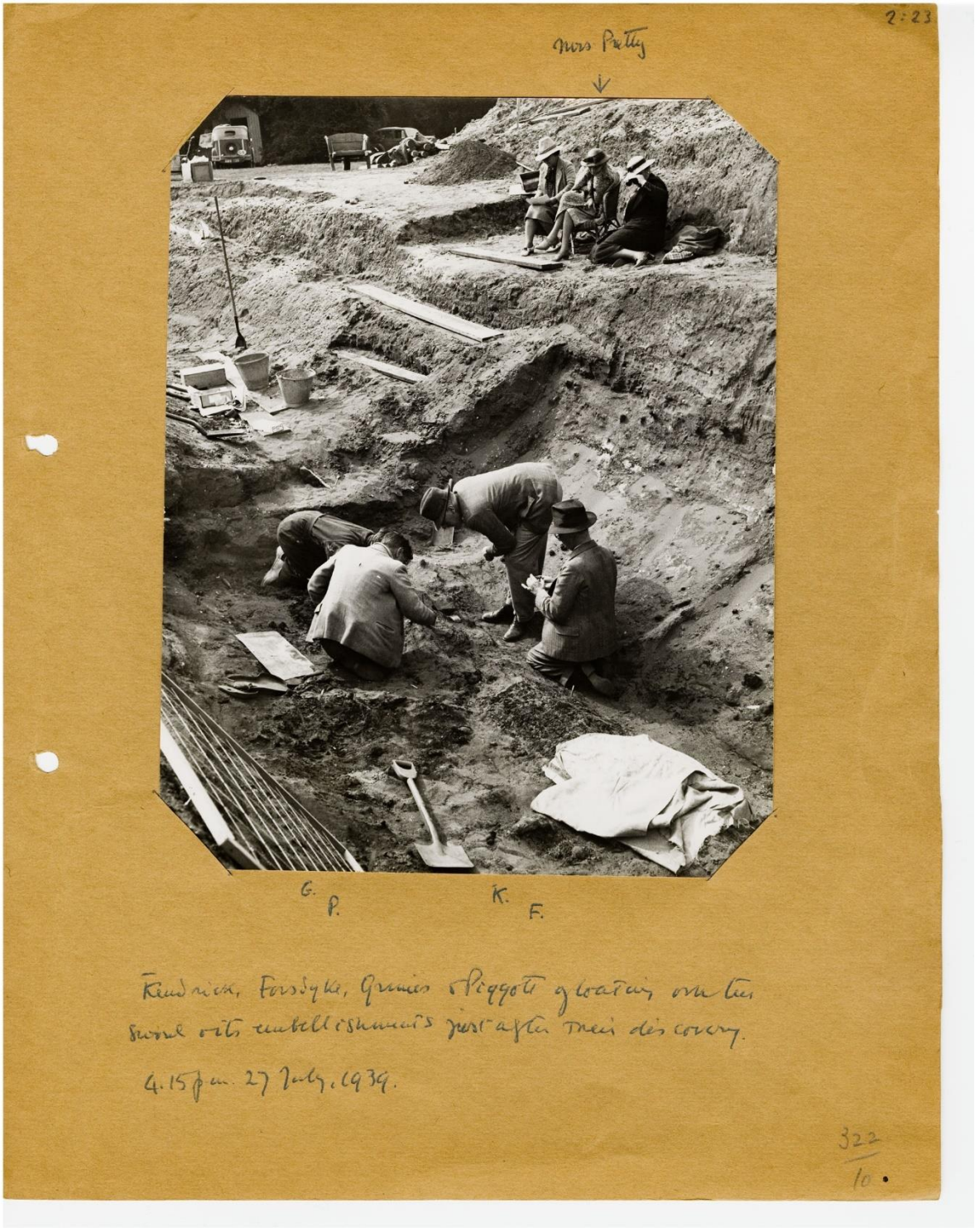


Figure 2.47 Steps down into the chamber. Print 2.23.



Figure 2.48 The trench early in the excavation. Print 32. Basil Brown Black Photo Album. British Museum.



Figure 2.49 The trench early in the excavation. Print 31. Basil Brown Black Photo Album. British Museum.



Figure 2.50 The trench in August. Photograph by Barbara Wagstaff. W 56/77. British Museum.



Figure 2.51 A Line Made by Walking (1967). Richard Long. TATE.

Crawford openly worked with the dramatic undulations in height across the site to compose photographs, using the spoil heaps and walkways to provide elevated views into the belly of the trench (Figure 2.52). At other times the material affordances of the trench may be felt in far more subtle ways. Rather than using a tripod, Crawford leant out over the edges of the burial chamber, to take vertical views of the finds in-situ which articulated the spatial relationships between the burial deposits. Though the elevated view of a site was a common compositional device in archaeological photography—see Plate 5 in Cookson (1954) as an example—in Print 2.19 Crawford reversed this perspective situating himself inside the trench and looking upwards to a gaggle of observers at the end of the ship (Figure 2.53). Though highly unusual for archaeological photography this perspective is reminiscent of that which the excavators themselves must have had as they worked—situated inside the trench in close proximity to the archaeological record looking upwards to spectators thronging the ground surface. There is a comic twist to the framing as well, the signpost between Phillips, Forsdyke and Kendrick was one of several erected warning the public to stay out of the trench due to a "Danger of Collapse" (Figure 2.54). Though the shifting nature of the Sutton Hoo soils were used to limit entry to the public, as well as restrict Brown's movements, Crawford was able to circumvent these prohibitions and insert himself into the centre of the excavation.

In each of these photographs the structure of the trench is a vital compositional element. When reviewing the spread of Crawford's photographs across the site and mapping these onto plans of both the burial deposit and onto the trench structure, it becomes clear that there are specific vantage points which Crawford used repeatedly across the five days (Figure 2.55). Within the burial chamber the areas which exhibit the highest concentrations of photographic activity are—unsurprisingly—points closest to the highest value finds.[226] But one third of Crawford's photographs are taken from vantage points outside of the burial chamber. In Section 2.2 I argued that the dimensions of the burial chamber contributed to the rhythms of archaeological activity; with Crawford and his colleagues taking it in turn to work with the finds. This distribution of photographs reveals the vantage points to which Crawford retreated while the excavators worked. These were more accommodating spaces for the photographer; places where the sand had been consolidated into wider walkways, steps or platforms. Crawford was not alone in choosing to observe the progress of the excavation from these locations. In Print 2.96 (Figure 2.56) three shadows fall across the foreground of the print, and in Print 2.68 (Figure 2.57) a shadow, a disembodied arm, and foot all creep into the frame. This impression is enhanced when bringing in examples from other

[226] 24 photographs—just over 19% of the total photographs taken across all five days—were taken in the vicinity of the Anastasias Dish and Horns complex.

photographic collections; one of Brown's photographs (Figure 2.58) is taken from an almost identical vantage point as Crawford's Print 2.51 (Figure 2.59), while another (Figure 2.60) depicts Lyons, Fuller, Spooner and Jacobs bunched together on one of the walkways observing the proceedings. Walkways and platforms around the burial chamber doubled as social spaces encouraging those present to gather together to observe the proceedings. This close proximity inevitably led to situations where the press of bodies become manifest in the frame. The resulting photographs reflect more than the agency of any single photographer, instead the social conditions of the excavation collide and collude with the material affordances of the trench; determining who and what end up inside the frame.

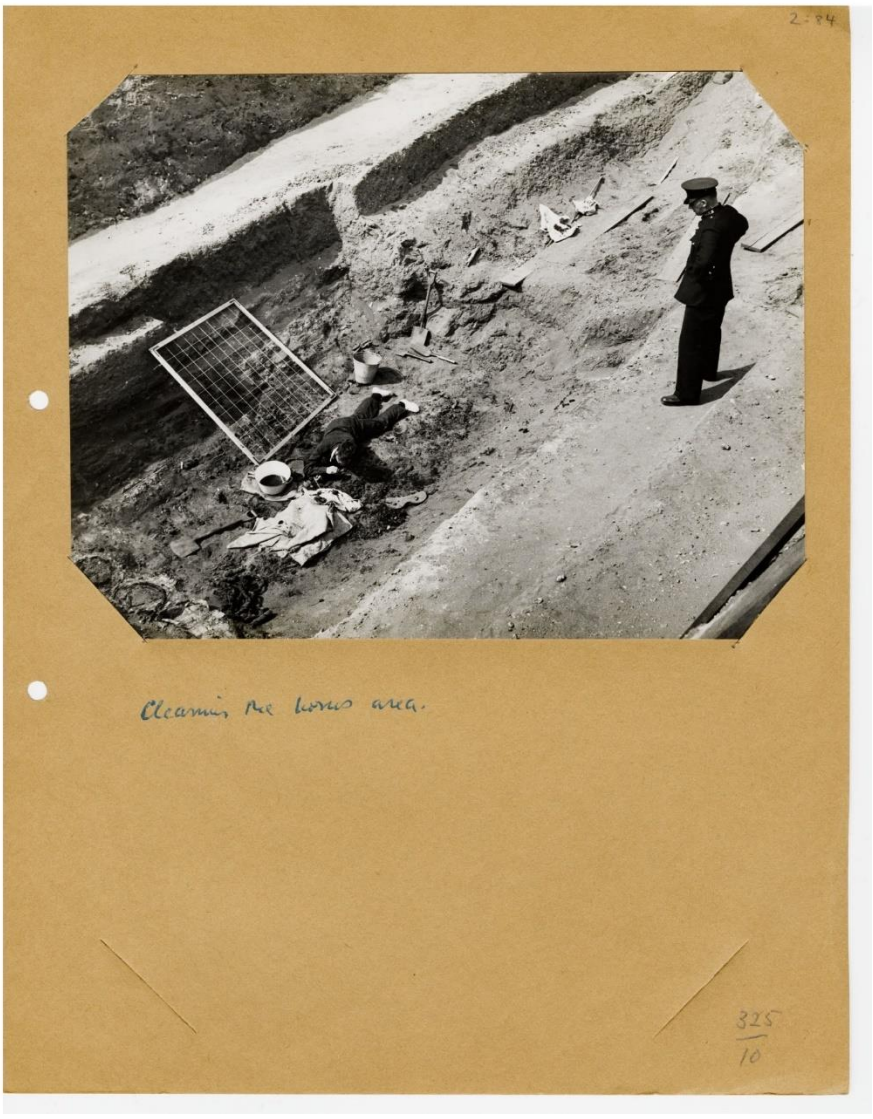


Figure 2.52 Looking down into the trench. Print 2.84.



Figure 2.53 Looking up out of the trench. Print 2.19.



Figure 2.54 Sign warning the public to keep out. Detail from Lack 5.10. British Museum.

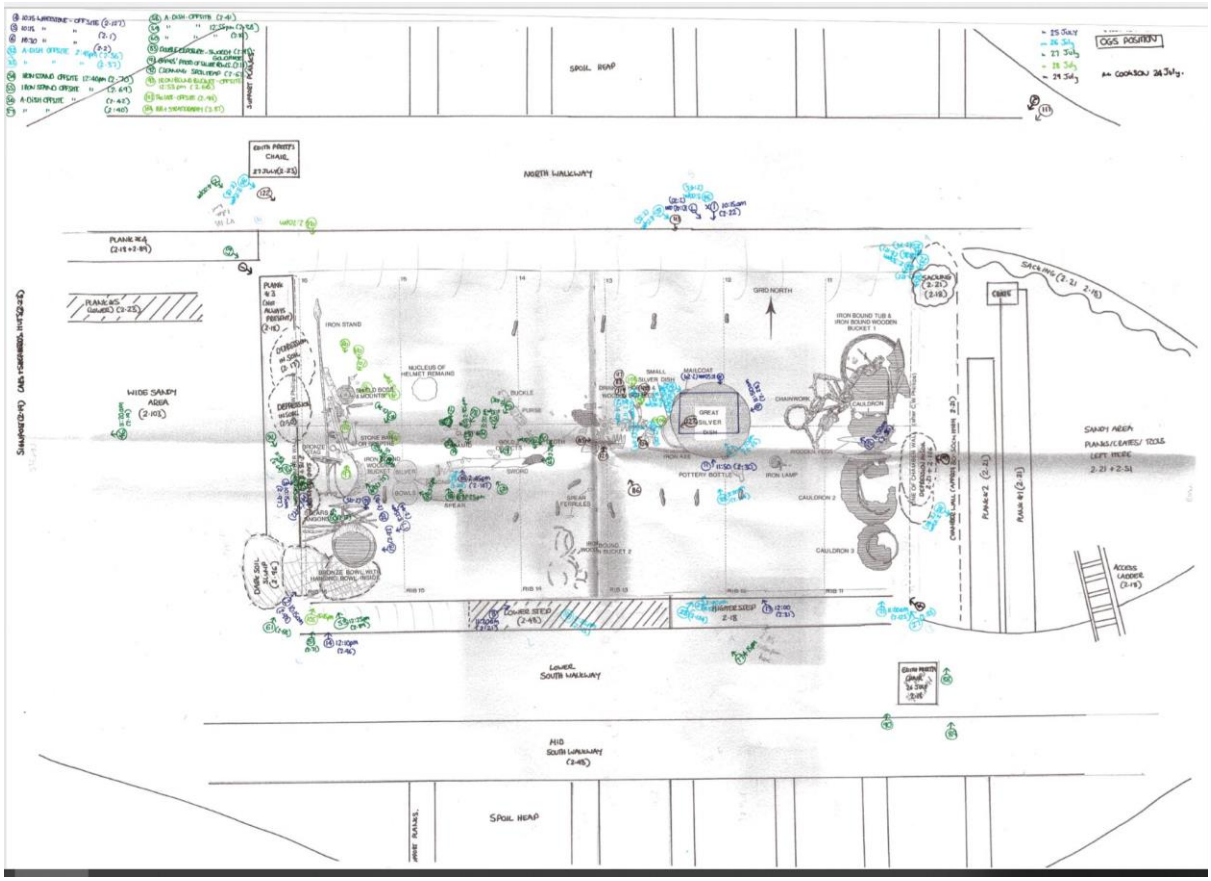


Figure 2.55 Crawford's approximate vantage points for each photograph. Diagram by the author.

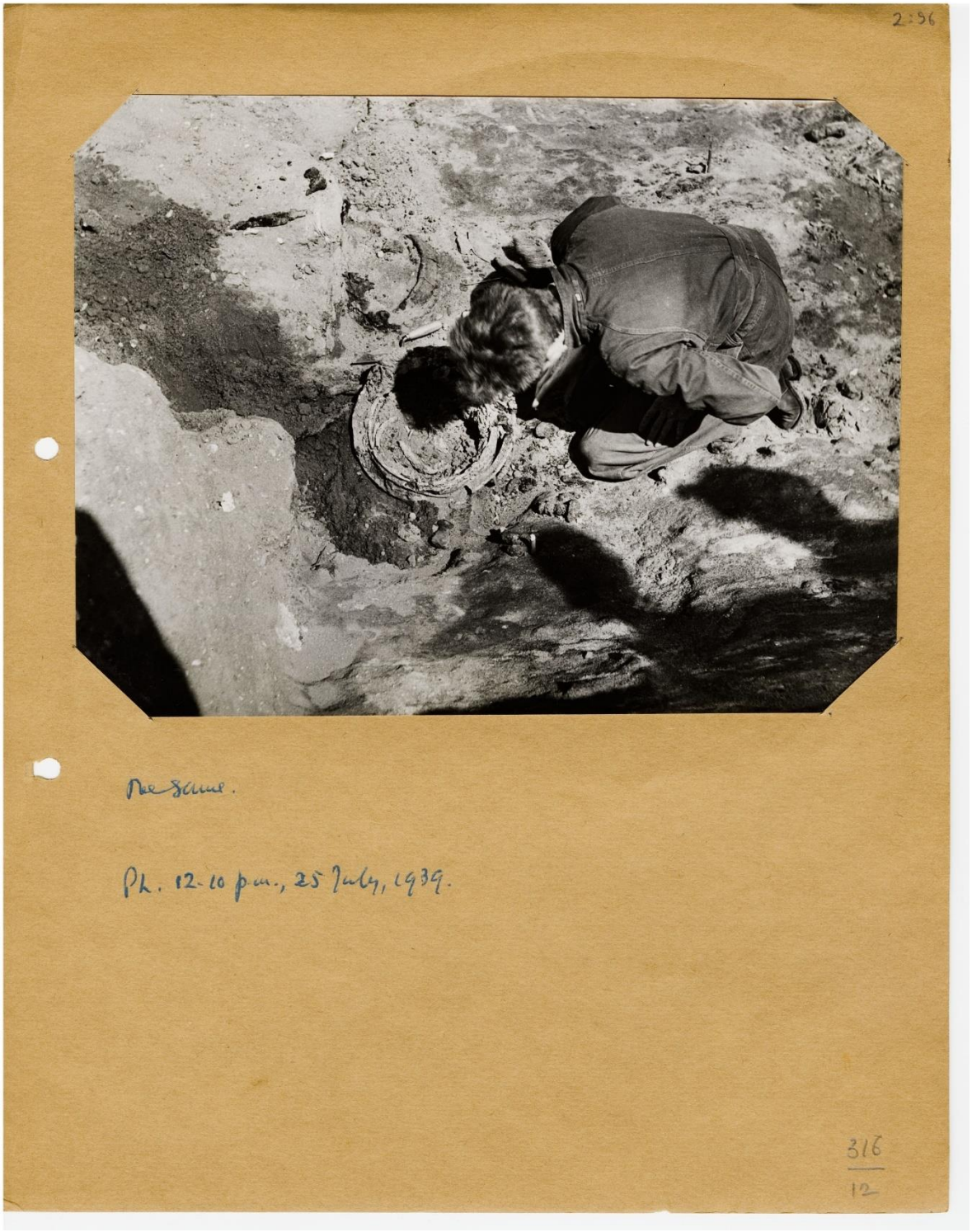


Figure 2.56 Shadows. Print 2.96.



Figure 2.57 Foot, arm and shadow. Print 2.68.

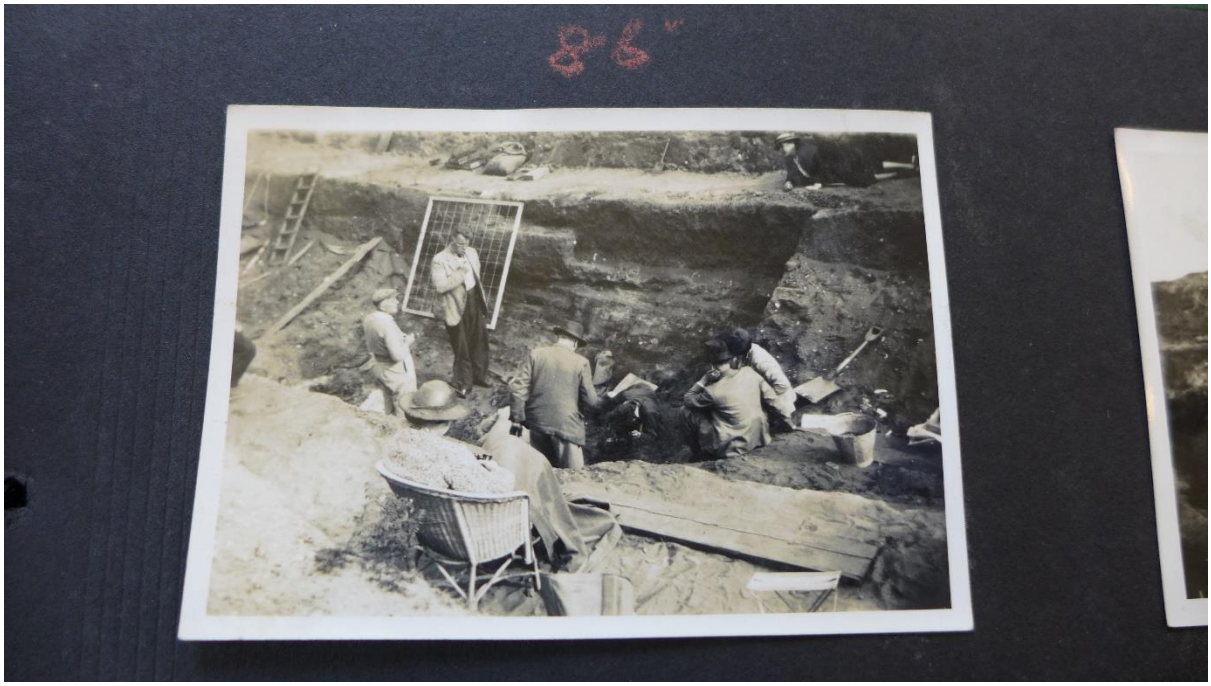


Figure 2.58 Basil Brown using the same vantage point as O.G.S. Crawford. Print 86. Basil Brown Black Photo Album. British Museum.

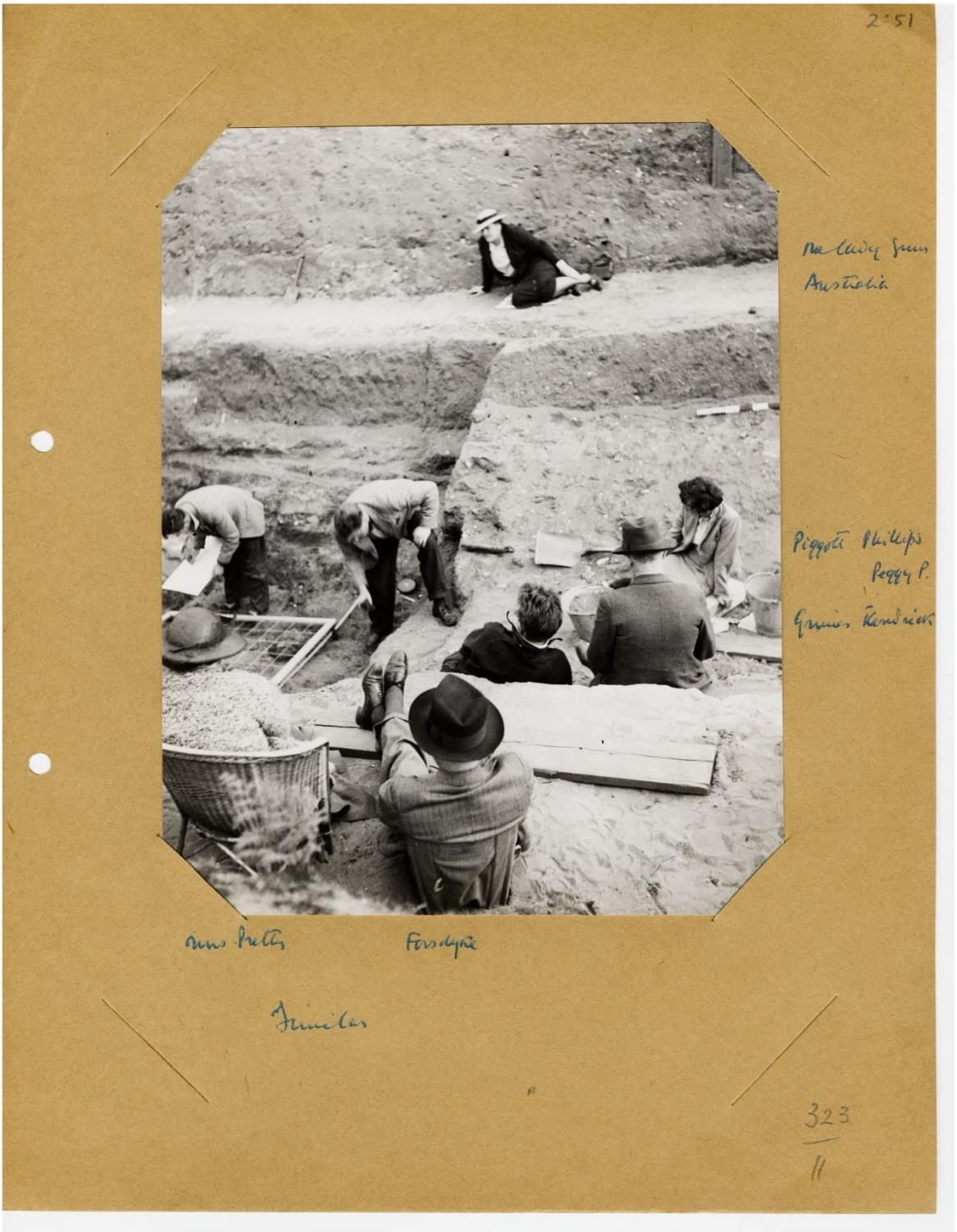


Figure 2.59 Crawford using the same vantage point as Basil Brown. Print 2.51.



Figure 2.60 Lyons, Fuller, Spooner and Jacobs observing from the walkway. Detail from unlabelled print. Basil Brown Black Photo Album. British Museum.

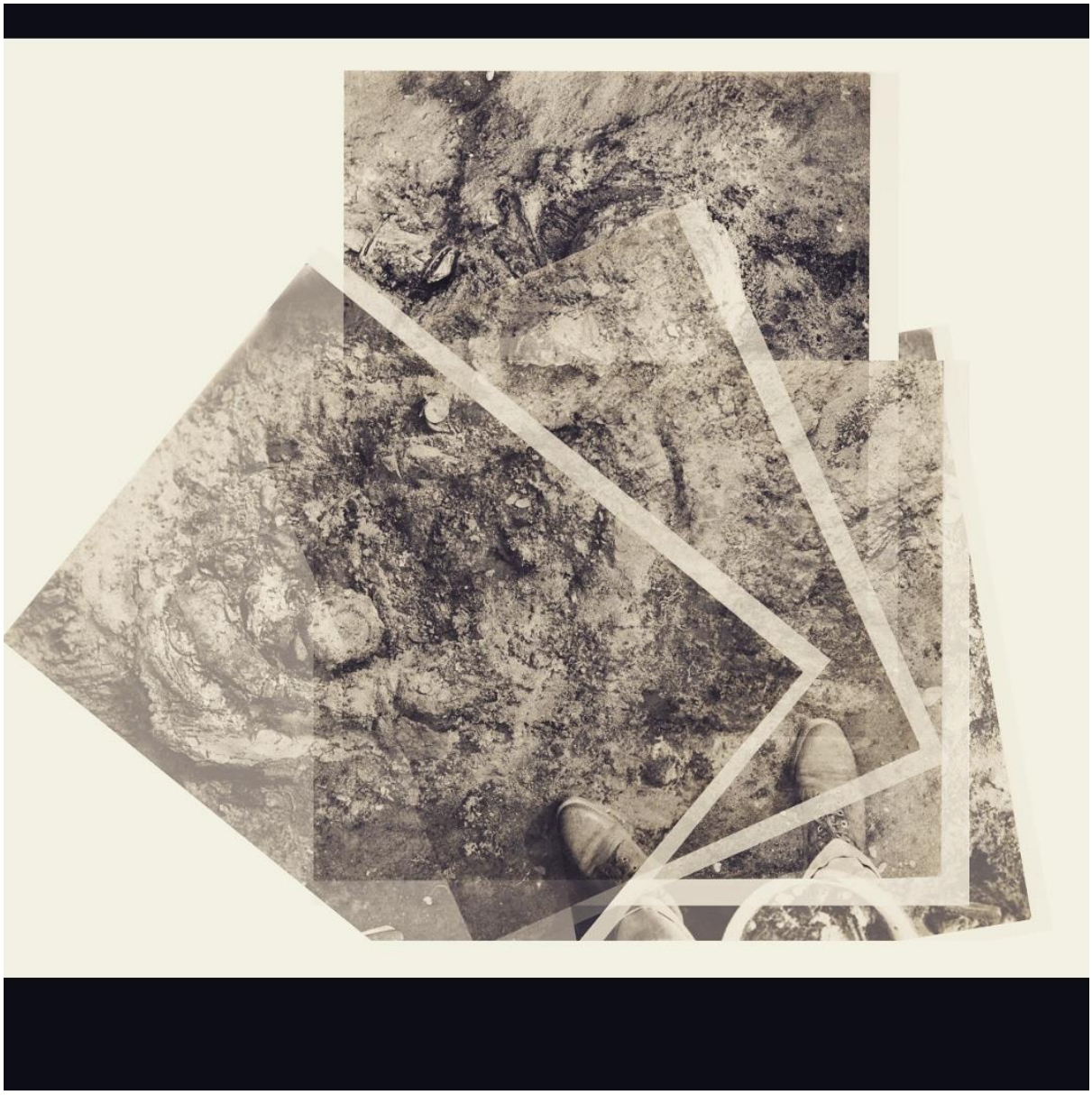


Figure 2.61 Crawford's Feet. Collage by the Author.

In eleven of the prints in Box Two it is Crawford's own feet which edge into the composition of his photographs (Figure 2.61). The presence of Crawford's feet can also be explained by the convergence of other-than-human actors; the arrangement of finds in the soil, the structure of the burial chamber and the technological limitations of his Rolleiflex camera. In his article on extracting the finds Grimes complained of "restricted conditions"; artefacts that had been laid against the burial chamber walls were accessible only from limited angles as evidenced by Crawford's occasional retreats to the trench walls in order to photograph them (1940:70). Others positioned more centrally in the chamber posed a different problem; as they clustered together limiting the places excavators could safely stand, as in a photograph of Grimes' foot edging dangerously close to the

iron lamp (Figure 2.21). In fact, M. Carver quotes Grimes admitting "I have no doubt that we did in fact stand on quite a number of the objects quite a number of times" (2017:21). Building on photogrammetry models (Figure 2.62) generated from Crawford's photographs of the burial chamber it seems likely that the floor level was uneven and would have required careful concentration to negotiate (Hodgett, Campbell, Dawson and Smith forthcoming). Crawford also had to navigate these crowded deposits. In one photograph (Figure 2.63) Crawford appears, awkwardly straddling a raised area of soil. Camera in hand, he was clearly inspecting the area prior to photographing it. To add to these challenges the tools of archaeological labour would also have taken up precious floor space; in Print 2.118 (Figure 2.64) one of Crawford's feet slips around the edge of a bucket. A combination of scattered delicate finds, friable and uneven soil, and the press of bodies and equipment would have necessitated a constant monitoring of one's own bodily positioning.

Time too would have complicated the process. Not only did the archaeologists have to rush on account of the coming war, and work in concert with the rest of the excavation team in highly cramped conditions, they also had to grapple with the challenges posed by a combination of fragile finds and the "hot drying sun" (Grimes 1940:70). On 26th July as the excavators cleared the area under the Anastasius Dish Crawford only had time to take two or three photographs of each find in case prolonged exposure to the sun damaged the objects. In four of the resulting seventeen photographs his feet creep into the frame.[229] This brings me back to Knight and McFadyen's (2019) work on duration and Baird's (2011, 2017) emphasis on the photographic process—underlying which is the decentring of vision and the recognition of the embodied nature of photography as a practice. Composing a photograph at Sutton Hoo was an experience that involved the contortion of the entire body. In several photographs just one of Crawford's feet is visible—as in Fig.3.4.22—suggesting that he was leaning forwards or stepping over some form of obstacle, bracing himself on the front foot in order to compose a shot. Elsewhere he adopts a variety of strange poses in pursuit of the best angle (Figure 2.65). Just as Crawford recorded the awkward postures adopted by his colleagues, his photographs archive traces of his own unorthodox—even acrobatic—movements. These movements are as much a part of the photographic process as Cookson's slow progression around the site and painstaking cleaning.

These contortions were in no small measure due to the technical demands of Crawford's Rolleiflex camera. The Rolleiflex had a minimum focal length of about one metre which meant that Crawford

[229] Prints 2.114, 2.117, 2.118, 2.12.

would have had to maintain this distance in order for the camera to focus correctly. [230] This resulted in Crawford often taking photographs at some distance from his subject matter, and later making enlargements from the negatives to create the final print (Figure 2.66 & Figure 2.67). Perhaps in these instances Crawford did not mind the intrusion of his feet, knowing that they would be removed at a later stage in the printing process. Or perhaps, he simply did not realise that they were there at all. Another factor in the camera's performance that may have contributed to the framing of his feet is phenomenon known as parallax error. The Rolleiflex used a twin-lens system, wherein the higher lens on the body of the camera projected an image onto the ground glass viewfinder, while the lower of the two lenses was used to expose the film (Figure 2.68). Due to the difference in position between the two lenses, the image that appeared on the ground glass was not an exact match to that 'seen' by the taking lens.[231] Consequently, Crawford could very well have composed a picture in which his feet were absent from the viewfinder but were still within the line of sight of the lower lens. This was further complicated by the fact that to take vertically angled photographs, Crawford would simply pre-focus the camera and then hold it out at arms-length with the lens pointing straight down (Crawford 1936d:489). In this scenario the composition of a photograph has far more to do with the embodied presence of the photographer and the affordances of the camera than the conventions of 'visual grammar'. Details like these—the material affordances of the trench shaping the movements of archaeologists, the technological limitations of the camera, traces of Crawford's embodied presence in the composition of his photographs—all promise avenues for speaking of archaeological photography in ways that reaffirm both the lived realities of archaeological excavation and the presence of archaeologists in the records they create.

[230] Though he sporadically used a Proxar lens for very close work.
[231] In his notes on photography in *Antiquity* Crawford seems ignorant of this phenomenon (Crawford 1936c & 1936d).

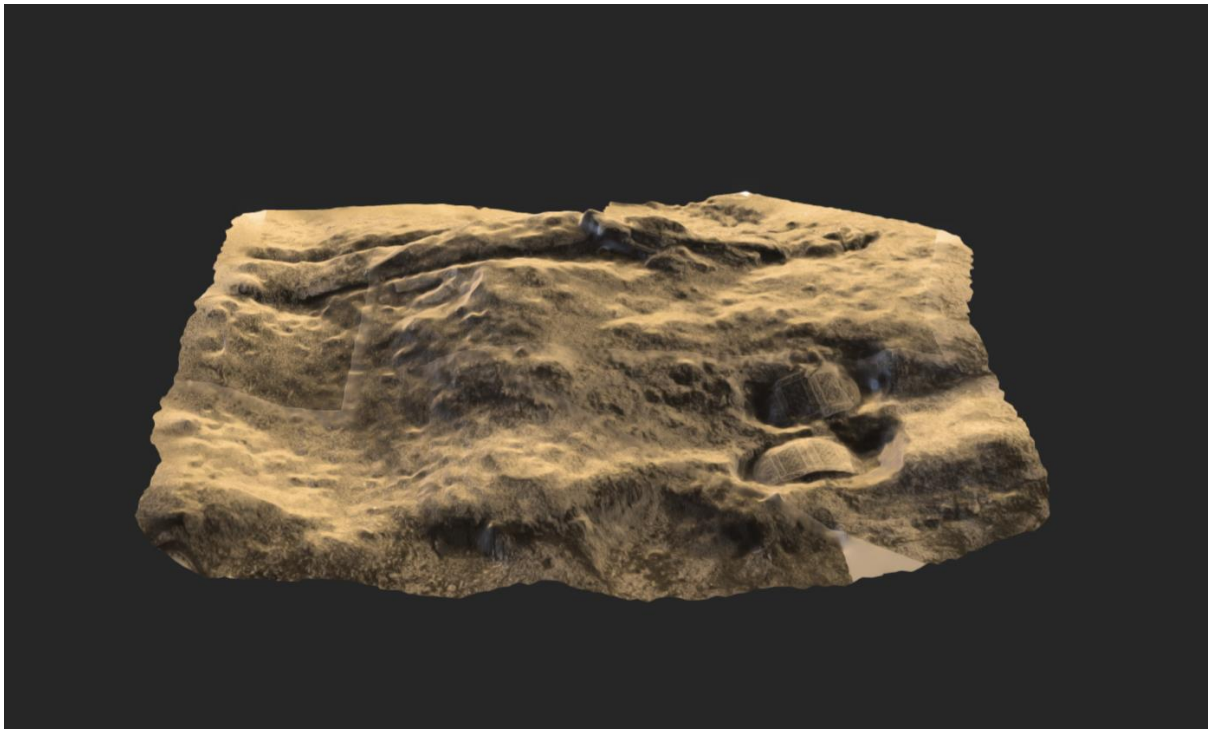


Figure 2.62 Photogrammetry Model of the Sword and Clasps Complex.



Figure 2.63 Straddling the soil. Print 79. Basil Brown Black Photo Album. British Museum.



Figure 2.64 Stepping around the bucket. Print 2.118.

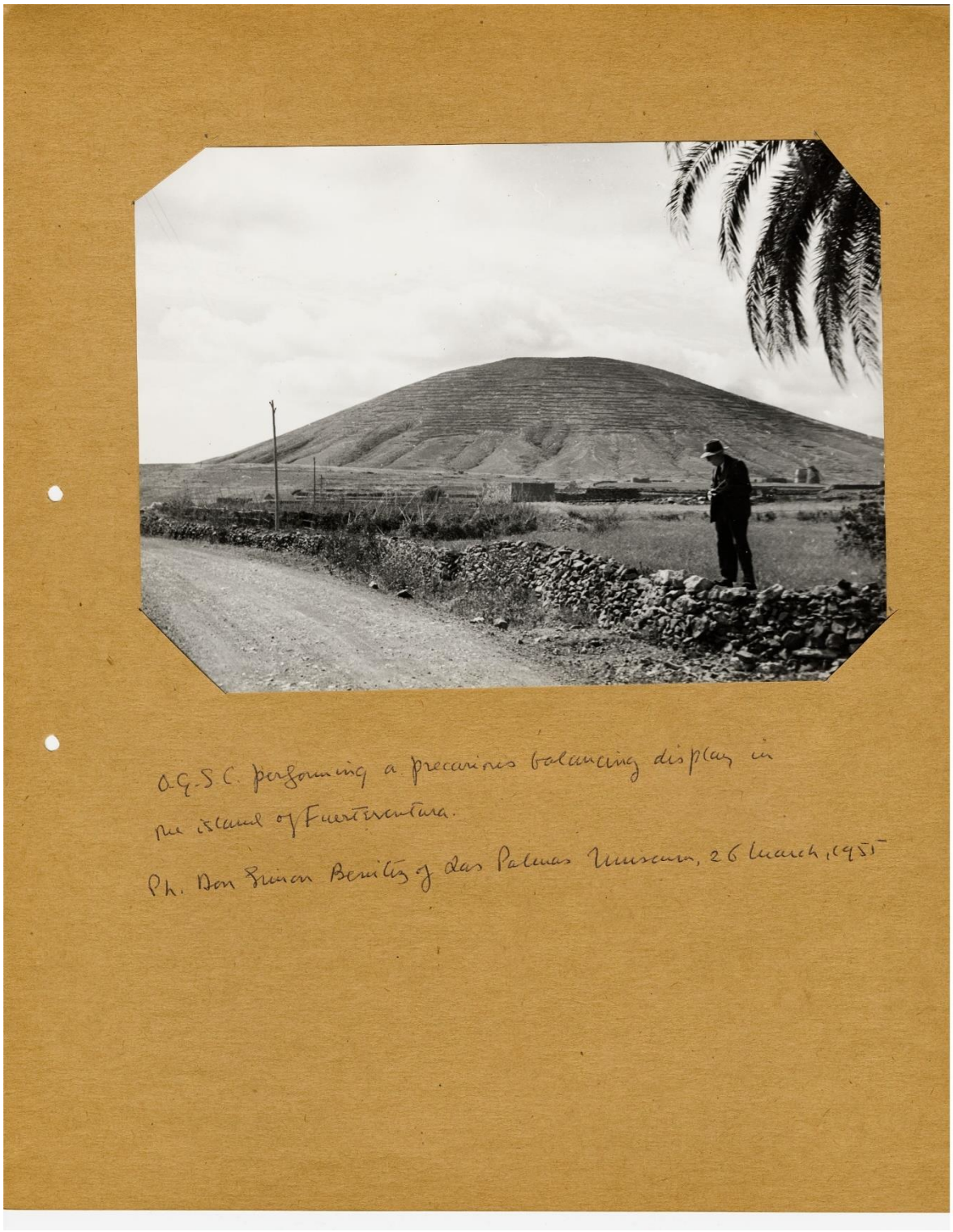


Figure 2.65 A "precarious balancing display". Print 41.8.

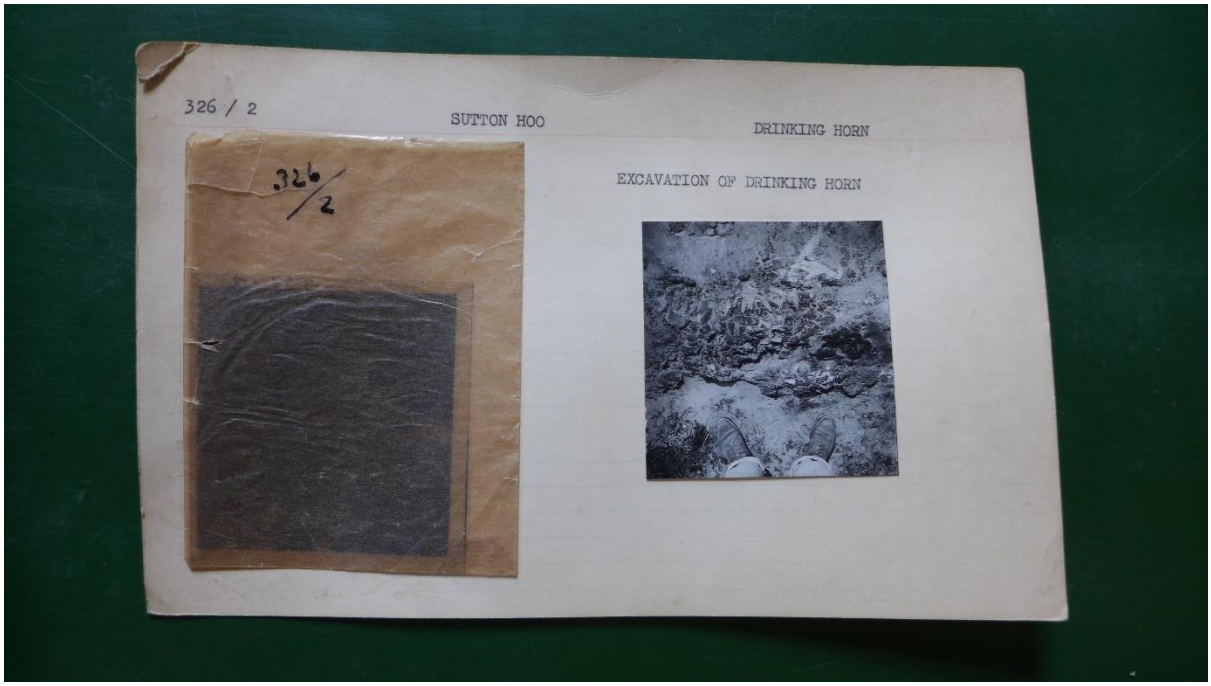


Figure 2.66 Contact print and Negative 326/2. O.G.S. Crawford Negative Collection. British Museum.



Figure 2.67 Print from negative 326/2 in Box Two. Print 2.57.

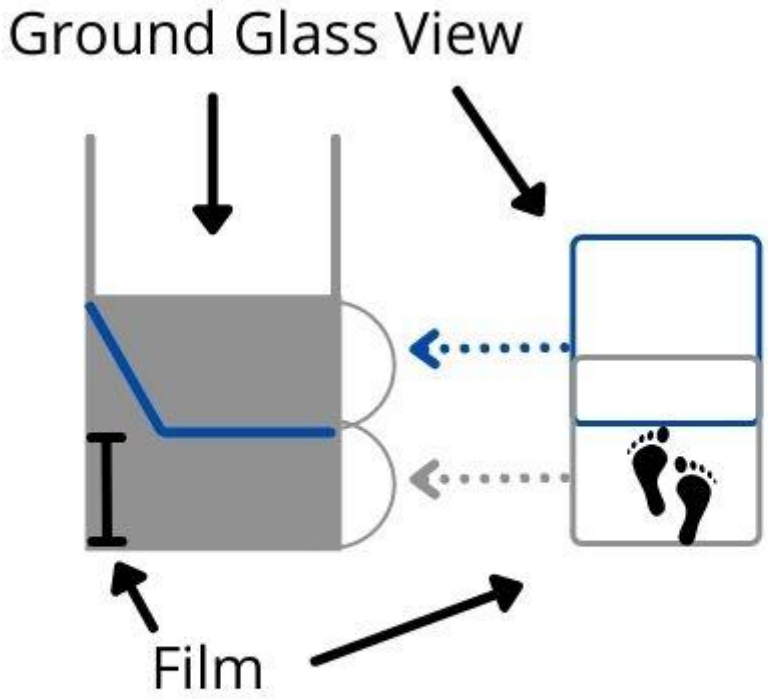


Figure 2.68 Parallax Error. Sketch by the Author.

2.5 Crawford at the British Museum

Crawford left Sutton Hoo on the evening of the 29th July 1939. A week later he wrote to Phillips with palpable excitement; the "first of the films has been developed" and the prints had "come out exceedingly well" (Letter from Crawford to Phillips. 4 August 1939. SH Photog-Excav I, 1939. British Museum). Crawford's excitement over the prints soon turned to ruminations about their future storage and anxieties over the impending war. In September, Crawford wrote again to Phillips, stating that he had prepared two identical sets of prints "of which the one I am retaining is an exact duplicate, down even to the marks on the back" (Letter from Crawford to Phillips. 27 September 1939, SH Photog-Excav I, 1939. British Museum). This precaution—Crawford wrote—would ensure that "should anything happen to you or me or the photographs there will be, at any rate we hope, one complete set" (Letter from Crawford to Phillips. 27 September 1939. SH Photog-Excav I, 1939. British Museum). In February 1940 Crawford sent Phillips his negatives from the excavation, suggesting that a central repository of photographs should be created (Letter from Crawford to Phillips. 7 February 1940. SH Photog-Excav I, 1939. British Museum). From Phillips, the assembled excavation archives passed to the British Museum.

In those early days, the finds and records from the excavation were incorporated into the department of 'British and Medieval Antiquities' (Phillips 1983:17). Just as the threat of impending war disrupted the normal rhythms of excavation, so too did the outbreak of the Second World War disrupt the processing of the finds. Between August 1939 and 1946 the Sutton Hoo artefacts were stored in a disused tube station (Care-Evans 1986:9; D. Wilson 1992:7). The curator Rupert Bruce-Mitford recalled that there was "not even a room in the department" to begin sorting through the finds (2004:27). By 1955 the Sutton Hoo archives were moved to the new sub-department of 'Celtic, Anglo-Saxon, Viking and Continental Germanic Collections' but it was not until 1960 that Bruce-Mitford was finally provisioned with a "house in Montague Street" and funding for a thirteen-person team to process the finds in earnest (Bruce-Mitford 2004:27).

Thus far my analysis has centred around the set of prints housed in Box Two of Crawford's photographic archive in the Institute of Archaeology in Oxford. Notably both my interest in the spatial, temporal and sequential relationships between the Crawford's photographs, and much of the evidence of Crawford's presence as a photographer has been drawn from the material presentation of the prints in this box—their chronological ordering and the personal annotations left by Crawford. But as evidenced in Crawford's letters to Phillips in September 1939 and February 1940, a second identical set of Crawford's prints along with his original negatives were gifted to the

British Museum.[232] It has long been recognised that the "material and presentational forms" which photographs take and the archival spaces in which they are encountered can radically change the meanings that arise out of such collections (E. Edwards 2002:67; Rose 2000). The existence of this second set of prints poses a challenging question: would I have come to the same understanding of Crawford's photographic practice if I had consulted this parallel set of photographs in the British Museum instead?[233] As I demonstrated in the previous chapter the formation of an archive does not come to an end with the deposition of material in an institution. The set of prints held by the British Museum have undergone a radically different formation process in the years since 1939, and have been set to very different purposes to those in Box Two. This alternative formation process has left its own physical traces. In this section I argue that if archaeological photographs seem to encapsulate themes of absence rather than presence this is the result of the ways such photographs are worked with and presented in institutional settings rather than an inherent feature of the photographs themselves.

The experience of viewing Crawford's photographs in the British Museum is one of cognitive dissonance. The photographic images are unchanged but as physical objects the prints are wildly different. The photographs are mounted on green card, and in landscape rather than portrait. Layers of annotations, from professional looking stamps and printing instructions (Figure 2.69) to decorative doodles adorn these mounts (Figure 2.70) speaking of a material history as rich as that of the archive in Oxford. But when I ask about the annotations, at first no-one can remember who was responsible for them or when they might have been made. On several occasions prints are reproduced on different scales (Figure 2.71); enlarged to many times their original size or cropped to focus on a single object. The prints are glued rather than slotted into their cardboard mounts, making it impossible to confirm the presence of Crawford's annotations on the reverse of the prints. The glue has caused other problems too; causing the mounts to warp and bend, and seeping out from under the prints leaving discoloured stains. Many of the prints exhibit discolouration (Figure 2.72), rusted pin marks (Figure 2.73) or trailing lines of distortion indicating damage or degradation of the parent negative (Figure 2.74). Highlighting these details is not levelled as a critique of the present custodianship of the British Museum; these marks speak to a long history of active and engaged scholarship with a collection housed in a much larger institution without the personal oversight of a guardian with a vested interest in Crawford. I raise this as a precursor to exploring

[232] Today the collection falls under the jurisdiction of the Department of Britain, Europe and Prehistory under curator Sue Brunning.

[233] It is notable that there are marked differences in the social histories of the excavation written by Durrant (2004) and Markham (2002) who draw on Brown's archives and those of the Ipswich Museum, and those written by Carver who works predominately on Phillips' archive.

how this very different management of Crawford's photographs has drastically changed the subsequent meanings taken from the collection.

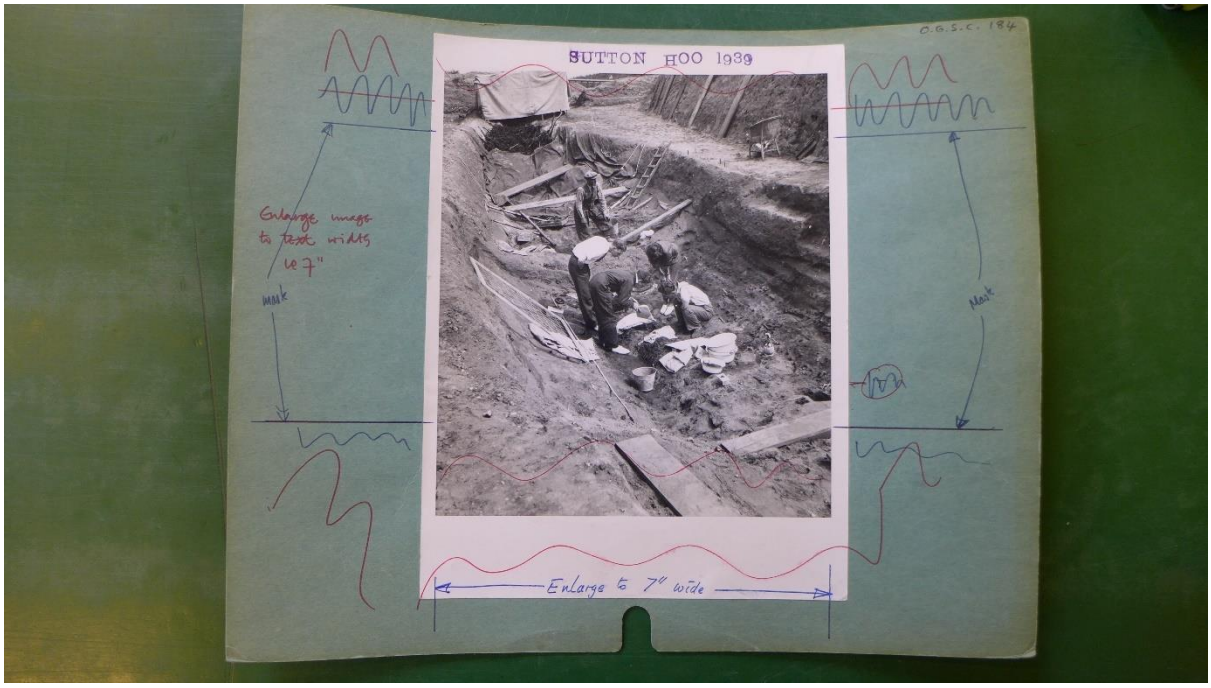


Figure 2.69 Printers instructions. O.G.S.C 184. British Museum.

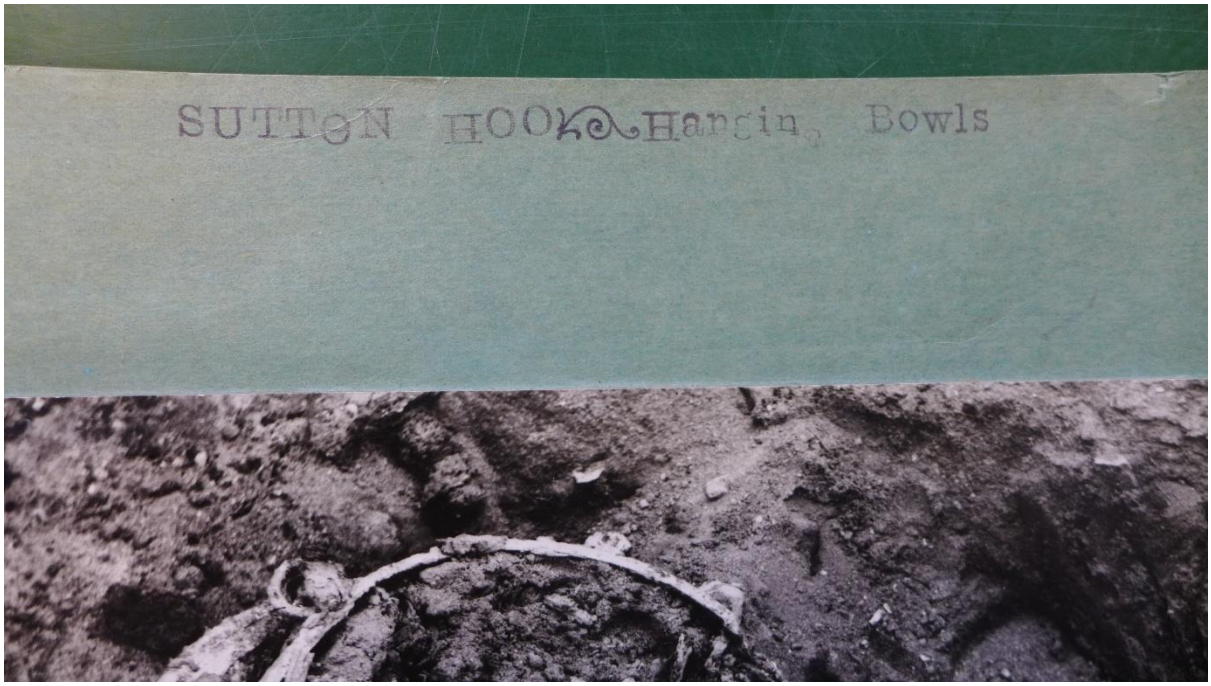


Figure 2.70 Doodles on the Cardboard Mounts. O.G.S.C 317/7. British Museum.

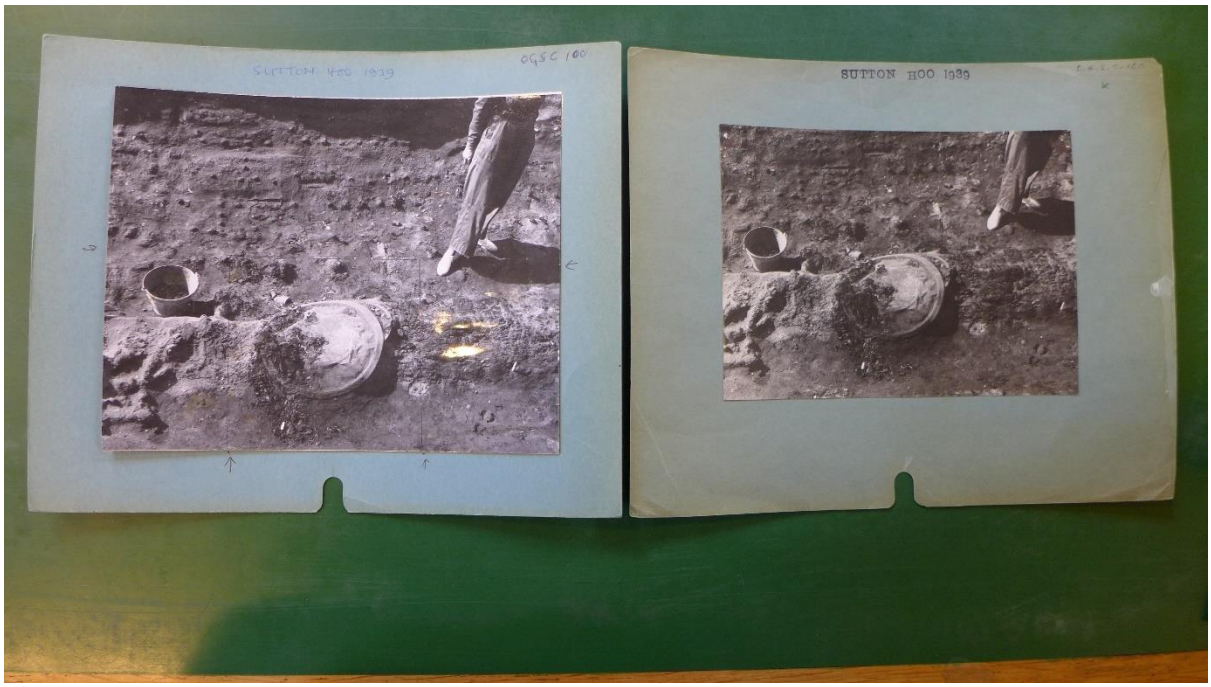


Figure 2.71 Multiple prints in the archive. O.G.S.C 100. British Museum.

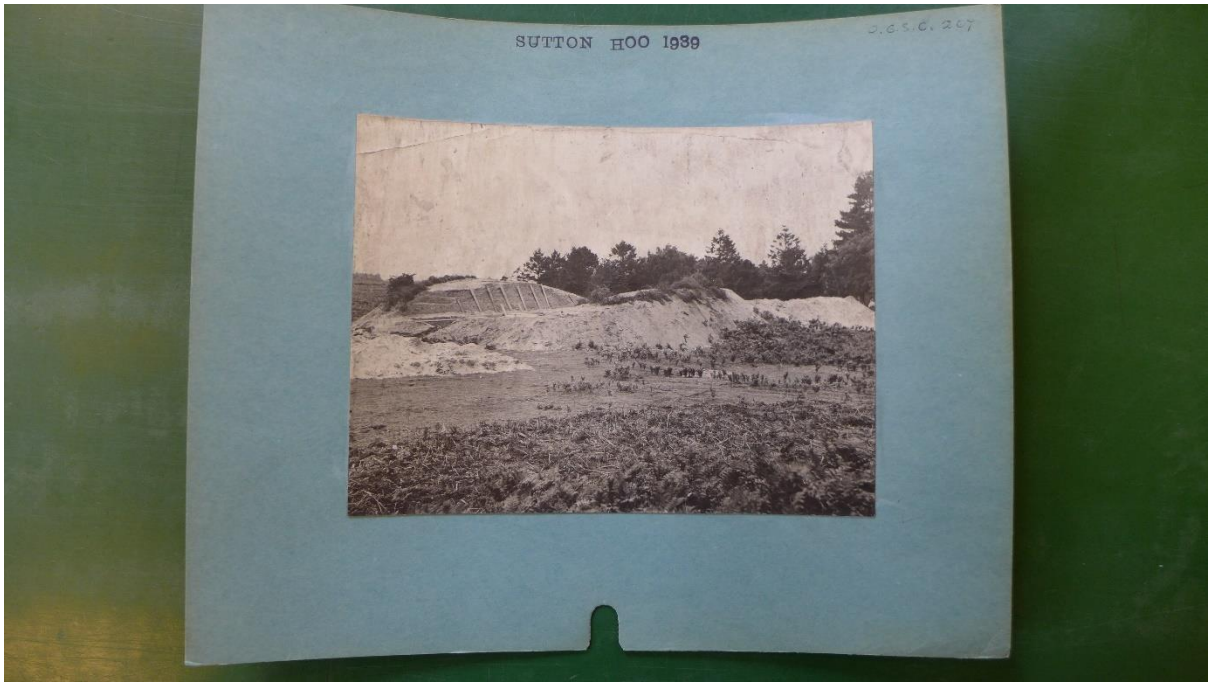


Figure 2.72 Discolouration and damage to prints. O.G.S.C 207. British Museum.

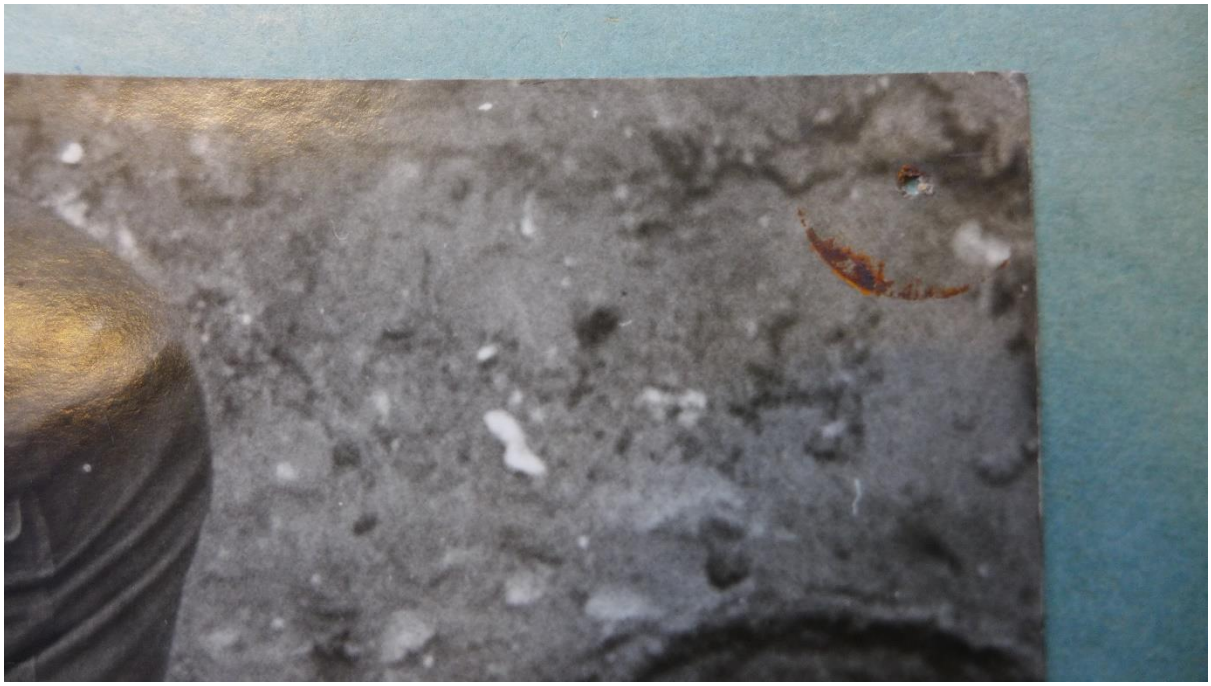


Figure 2.73 Rusted Pin Holes. O.G.S.C 108. British Museum.



Figure 2.74 Chemical Damage. O.G.S.C 160. British Museum.

If Crawford's photographs in the Institute of Archaeology occupy the position of an 'almost-collection' in E. Edwards' (2016c) hierarchy—recognised as a distinctive collection with historic associations but still ultimately used extractively—then the prints in the British Museum sit firmly between the category of 'information archives' and 'non collections'. The prints are presented loosely stacked in a plastic tub with no contextual information about how they are stored or otherwise ordered. The markings on the prints and mounts make it clear that they have been *looked through* rather than at as objects in their own right (cf. Shanks 1997). This brings me back to the pervasive assumption that archaeological photographs and archives act as objective records from which 'facts' can be extracted. In the following pages I argue that these assumptions have conditioned the manner in which previous generations of scholars have approached the photographs; applying what Bohrer (2011) has described as a 'forensic' inspection of details in the photographic image. These techniques of looking at and forensically interrogating photographic images have left their own traces on the collection which in turn has acted to reinforce the perspective that archaeological photographs are the depersonalised carriers of 'facts'.[236]

Both Bruce-Mitford (1975) and M. Carver (2011) have highlighted a series of gaps in the 1939 excavation record; with crucial plans being lost during the war, and others marred with inconsistent recording techniques. A review of Stuart Piggott's plans of the burial deposit revealed that Piggott regularly swapped between using numerical and alphabetical designations for sections, and that his use of terminology to refer to finds was equally inconsistent (Bruce-Mitford 1975:140).[237] Bruce-Mitford has also criticised Brown's notes and plans as "not…adequately or reliably measured" (1975:100). In 1939 Lieutenant-Col Hutchinson of the Science Museum took responsibility for mapping the imprint of the ship left in the sands, but died during the war leaving behind no useable notes on his explorations of the ship (Phillips 1983:17).[238] Consequently, Bruce-Mitford was faced with a plan of the burial chamber that was "floating…not related to the boat" (Bruce-Mitford 1975:143).

It was at this stage that Crawford's photographs began to play an active role in Bruce-Mitford's team's investigation into the relationship between boat and burial chamber. Several of the prints feature annotations in a distinctive red marker pen that can be traced across Bruce-Mitford's team's

[236] I develop this argument out of literature which explores the production of the 'museum object' (e.g., Alpers 1991; Kirschenblatt-Gimblett 1991) and E. Edwards' (2002) work on the role which circulation and consumption plays in making photographs 'ethnographic'.

[237] Some of these inconsistencies can also be noted in Crawford's labelling of the finds in his prints and negative register.

[238] Crawford noted that the plans held by the Science Museum were "defective". (Letter from Crawford to Phillips. 9 January 1940. PHILLIPS CORRESPONDENCE FILE 719/6 BM. British Museum).

notes (Sue Brunning, Pers.Comm.). These annotations bear material witness to Crawford's images being drawn into a very particular regime of attention. In the place of Crawford's personalised notes that tell the human story of the excavation, are notations relating to the context of particular artefacts, or features that gesture towards the relationship between plan and ship. For example, in Crawford's archive Print 2.64 (Figure 2.20) is annotated as showing "Grimes cleaning the Iron Standard looking peeved at someone". The equivalent print OGSC 198 (Figure 2.75) in the British Museum archive is titled "STANDARD IN SITU [sic]" and two further notes are added; "Stake 1-2" and "M seems to have moved". Both are accompanied by arrows drawing attention to tiny details in the background and far right of the print. Grimes and his "peeved" expression go unacknowledged. The shift in emphasis from an expression of Grimes' personal agency in working on the site, along with Crawford's personal and humorous insight into his friend's emotions, to the label "STANDARD IN SITU [sic]" radically changes the meaning of the photograph, downplaying the presence of both Grimes and Crawford. Likewise, in print OGSC 139 (Figure 2.76 & Figure 2.77) neither Forsdyke, Grimes or Piggott are named, a number of annotations, including the line "Seems to be SP's 15" peg on his baseline" draw the viewer's attention to a plethora of small details in the soil, away from the presence of the archaeologists. One can almost imagine Bruce-Mitford and team scrutinising each print, perhaps even pinning up Crawford's photographs next to plans of the excavation trying to tease out tiny clues to help them spatially relate the burial deposit to its wider context. This approach was not always successful, and sometimes threw up additional problems; Bruce-Mitford recalls that objects would appear in the photographs which were not alluded to on any of the existing plans (1975:143), as is the case in O.G.S.C 113 (Figure 2.78) where one such "mystery object" is labelled.

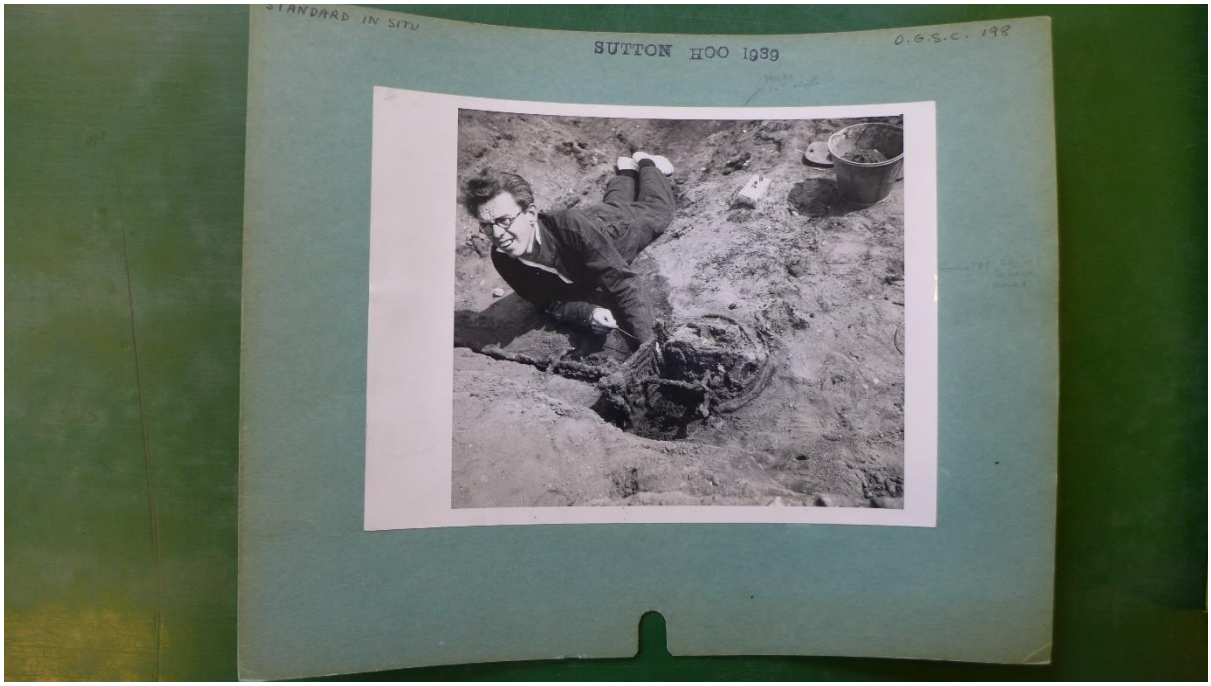


Figure 2.75 "The Standard in Situ". O.G.S.C 198. British Museum.

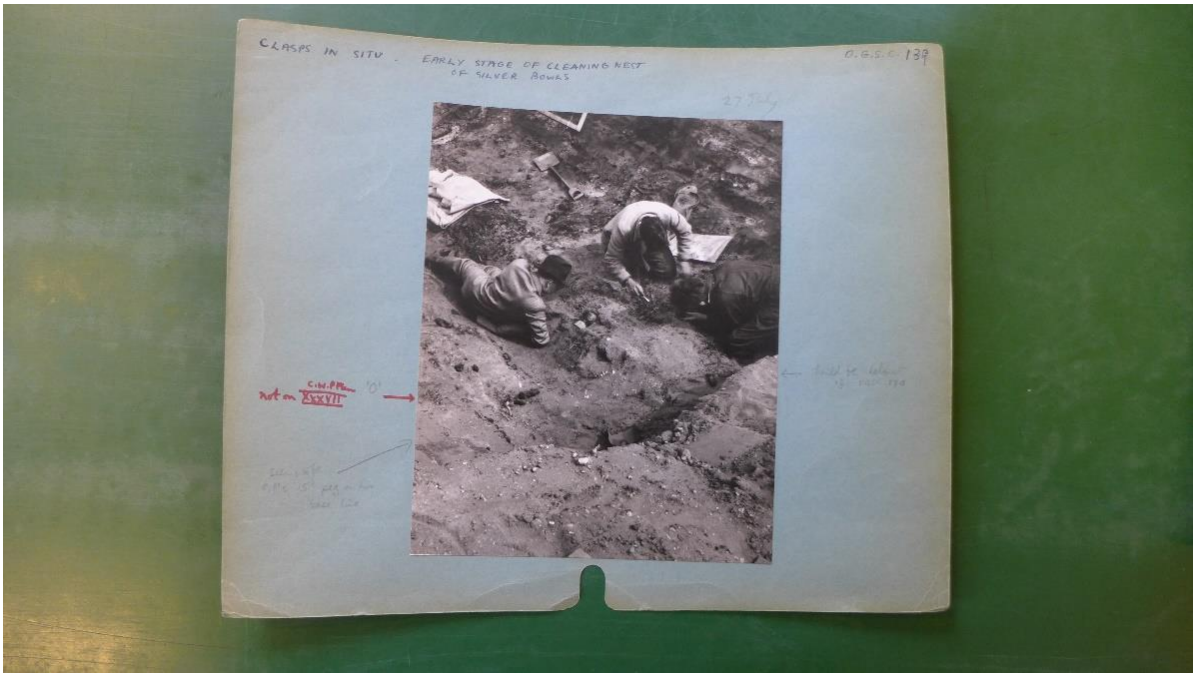


Figure 2.76 "S.P's 15" peg on baseline". OGSC 139. British Museum.

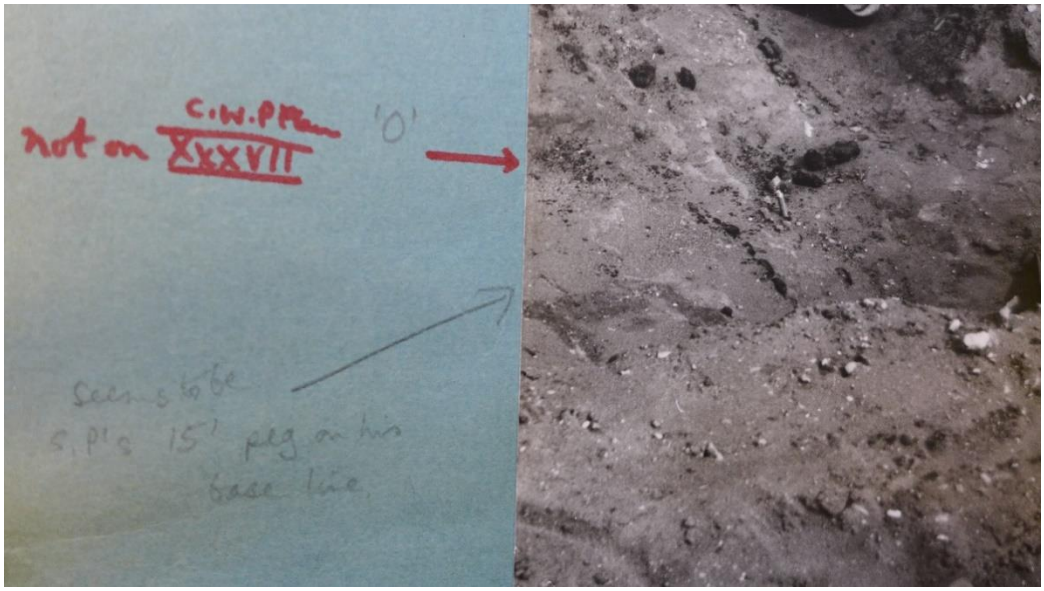


Figure 2.77 Detail. O.G.S.C 139. British Museum.

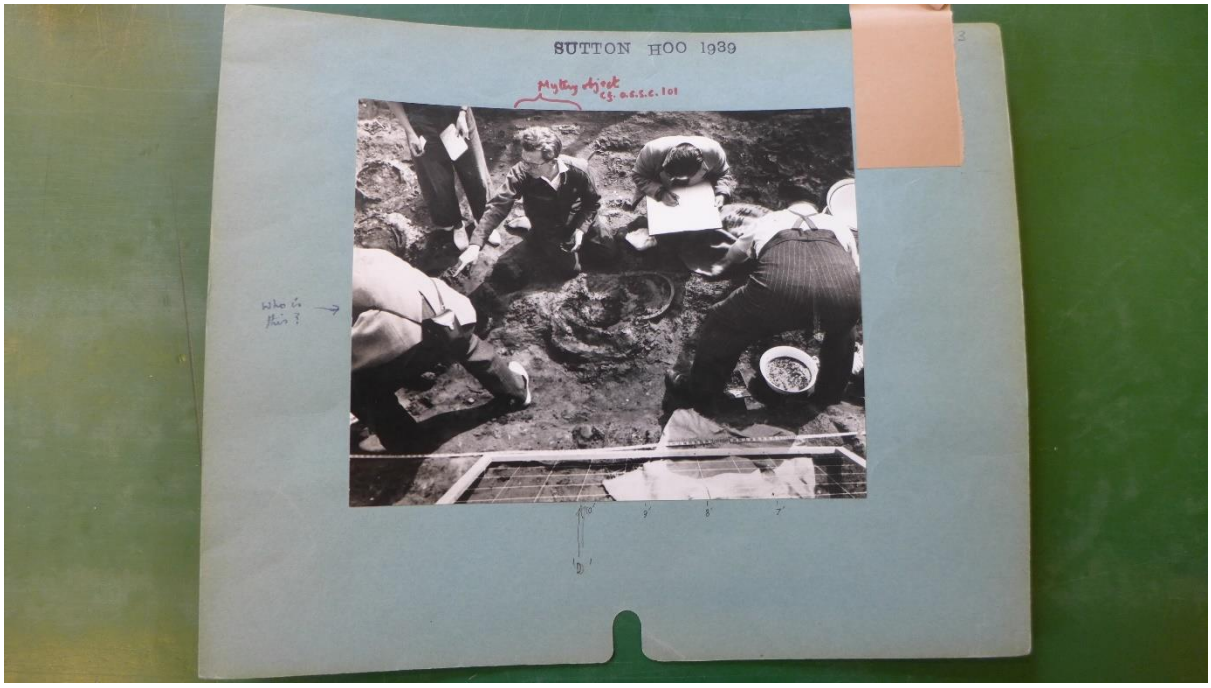


Figure 2.78 Mystery Object. O.G.S.C 113. British Museum.

These techniques of looking are just as encultured and deeply ingrained as the movement of archaeologists around an excavation site. Baird has argued that "Photography's evidentiary quality…almost always overrides its visual qualities, at least when archaeologists are the ones looking" (Baird 2017:168). These techniques of looking at photographs often cross over into physical manipulation of the prints themselves, and when coupled with the act of bringing pen or pencil to annotate the mount of a print, fundamentally change the meaning of the photographic image (cf. E. Edwards 2002). Just as Carter (2015) argues that the positioning of a rod-scale in a photograph could be the defining factor in an image being read as archaeological in nature, rather than a tourist snapshot, so too do these material interventions instruct the viewer on how to engage with the prints. At times, the human aspects of Crawford's photographs are quite literally cut away. In O.G.S.C 114 Crawford's photograph of Grimes triumphantly carrying away the small 'Vicky Dish' is cropped dramatically removing almost all trace of Grimes himself (Figure 2.79).[240] Though a handwritten note at the top of the cardboard mount records that this is a detail, the parent print does not feature in the collection. The removal of this smaller silver dish was a deeply emotional moment, for it was the positioning of this object—peeking out from under the larger Anastasius dish—that led Grimes to write of the "tantalising" prospect of more treasure to come (1940:69). The full image, which appears as Print 2.8 in Box Two annotated "Grimes carrying away the Silver Bowl" has all the connotations of this triumphal procession.

Though the cropping of a print may seem an extreme example, even seemingly benign archival practices like pasting a print to a mount can also have serious consequences; as is the case for print OGSC 113 (Figure 2.78) where a figure with his back to the camera is labelled "Who is this?". It is only through a comparison with annotations left by Crawford on Prints 2.43 and 2.18 in Box Two, that the figure can be decisively identified as Grahame Clark. It is not clear whether prints like OGSC 113 are part of the original set which Crawford carefully labelled before gifting to Charles Phillips, or whether they are later prints made from his negatives. If the former, then pasting the prints onto the cardboard mounts has acted to permanently obscure the annotations left by Crawford which might have aided in the identification of Clark. If the latter, the decision to not transcribe Crawford's annotations from the original print speaks to the assumption that the value of the photograph lay in the photographic image rather than the combination of image and text presented by Crawford.

[240] A similar divestment can be found in the case of O.G.S.C 100, which bears the marking up for cropping the image; effectively removing Peggy Piggott's presence.

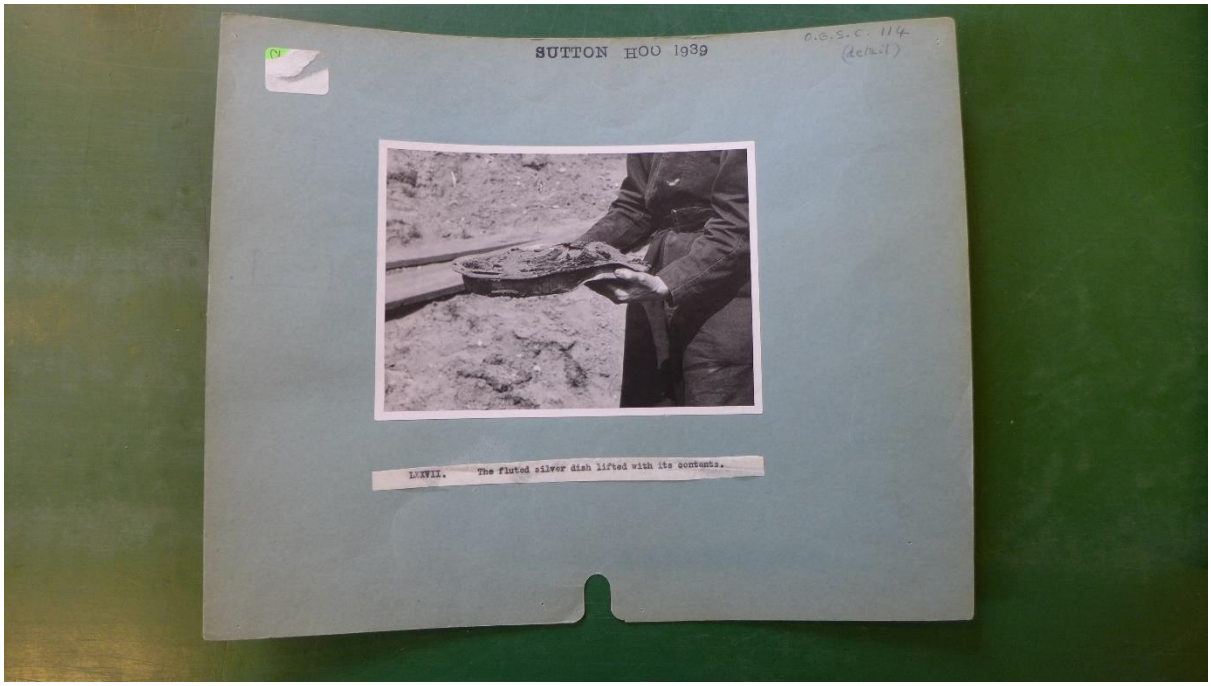


Figure 2.79 Cropping out Grimes. O.G.S.C 114. British Museum.

Labelling practices can gnaw away at the conceptual unity between images, threatening to uncouple photographs from their relationships within an archival assemblage. Crawford's negatives have also been the subject of much confusion in the British Museum. The negatives are wrapped in paper sleeves mounted on index cards which also bear contact prints from each negative. One index card in the middle of the pile lists missing negatives (Figure 2.80), a second lists a number of otherwise unidentified negatives that are assumed to be Crawford's.[241] Most of the negatives have been re-labelled with the British Museum's own internal numbering system, and so many of Crawford's own negative numbers have been replaced or erased (cf. Riggs 2016; Baird and McFadyen 2014). One such negative, labelled O.G.S.C 120, depicts the whetstone resting in a crate (Figure 2.81). On the reverse of the index card, confusion is expressed over the date this photograph was taken (Figure 2.82) as the whetstone was removed from the chamber on the 23rd July, yet Crawford did not arrive on site until the 25th. Though a print from this negative does not appear in Box Two, I suspect that this is negative 316/5 which is listed in Crawford's negative register as a "general view" of the whetstone, taken at 10:30am on the morning of the 25th July. The confusion over the sequencing of Crawford's photographs is taken to the extreme in Bruce-Mitford's erroneous assertion that Crawford "spent three working days at the site (25th-27th)" taking 64 photographs of the excavation

[241] A brief inspection makes me think that these are more likely to be photographs taken by Lack, Wagstaff or possibly Brown based on the subject matter and level of technical competence displayed.

(1975:137).[242] In both cases, if Crawford's original negative numbers had been retained, these could have been cross-referenced with Crawford's negative register, or even with Crawford's own annotations of the dates to clarify these claims.

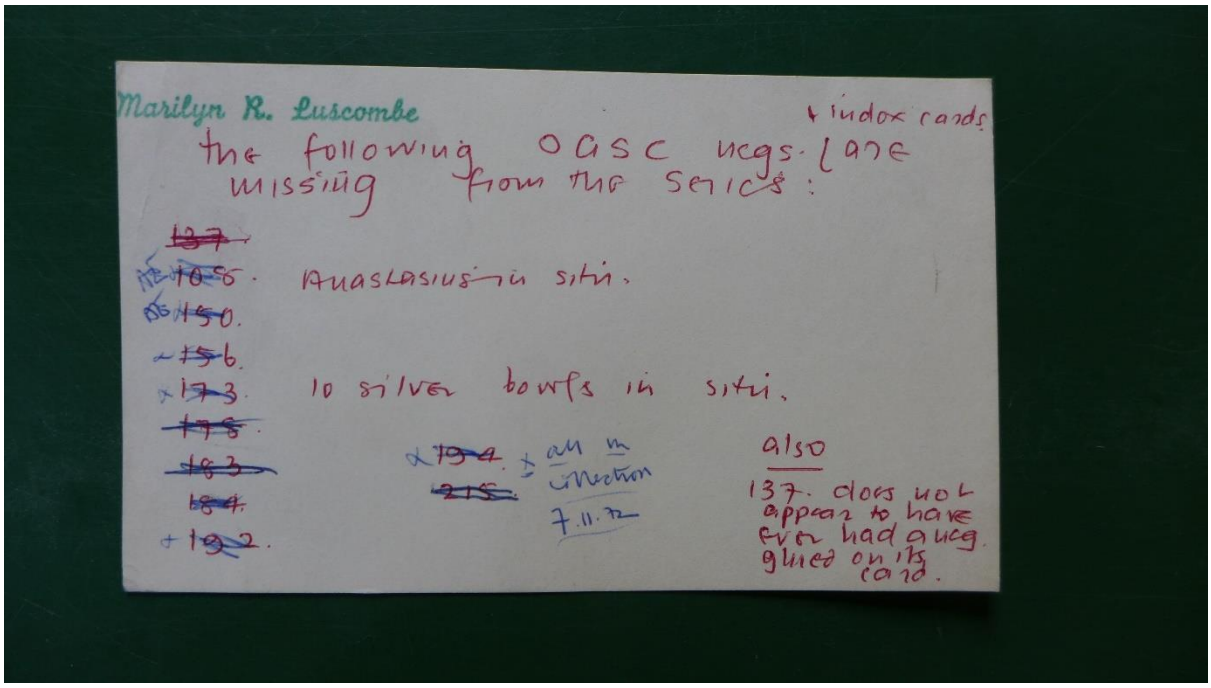


Figure 2.80 List of missing negatives. O.G.S.C Negative Index Cards. British Museum.

[242] Crawford was present from 25th-29th July, and his negative register records 137 exposures made during this time. A copy of Crawford's negative register was presented to the British Museum in 1971.

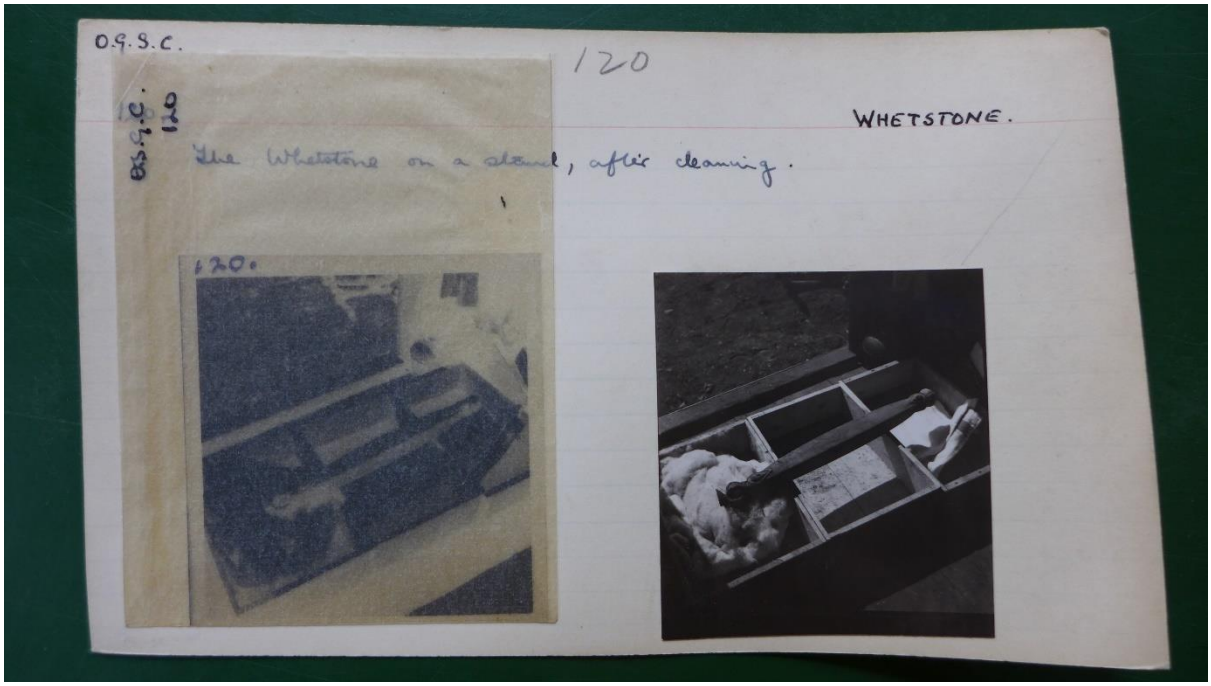


Figure 2.81 Front view. O.G.S.C 120. British Museum.

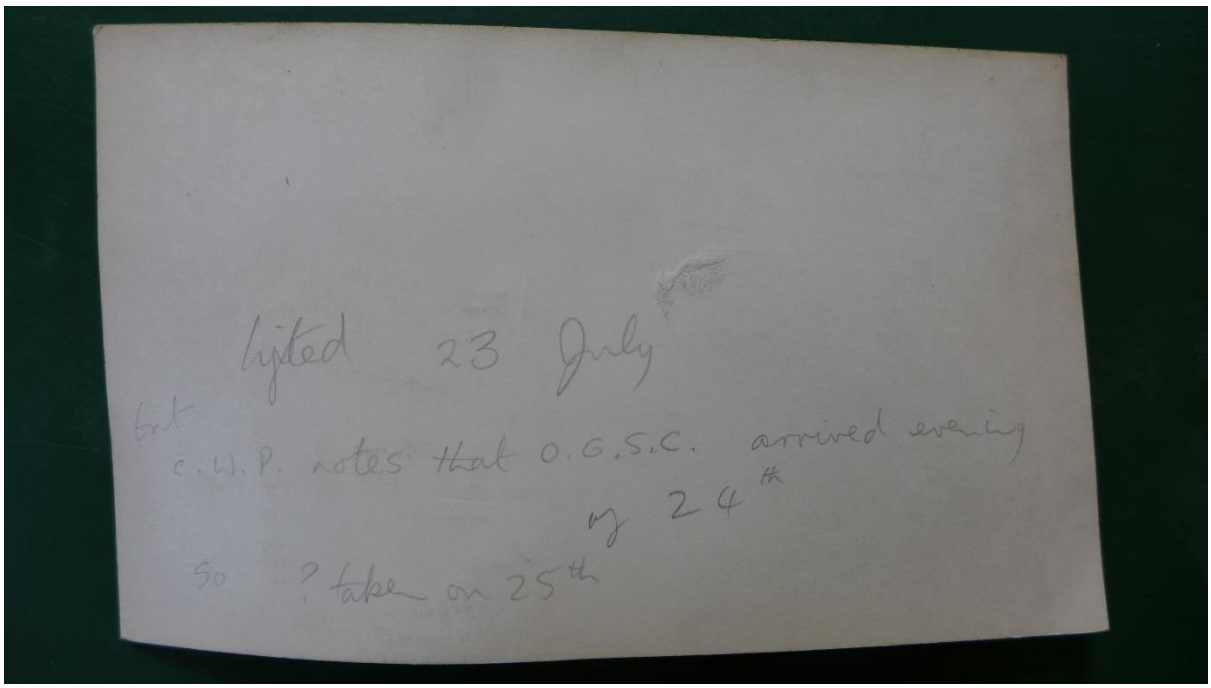


Figure 2.82 Confusion over the whetstone. Reverse of O.G.S.C 120. British Museum.

Confusion over the dates and times of events have implications that extend beyond the archive. During the 80th anniversary celebrations of the excavation the National Trust's Twitter account tweeted a photograph of "Cookson 1.4" (Figure 2.7) along with the claim that the photograph was taken on 17th July (Figure 2.83). Given that the first of the artefacts from the burial chamber were unearthed on the 21st July, and that these objects were considerably higher in the stratigraphy than the Anastasius Dish pictured in the photograph, it seems highly likely that the archival confusion has struck again. In fact, Bruce-Mitford reports that Cookson only arrived at Sutton Hoo on the 24th July (1975: 738). A comparison of Cookson's photograph with the first photograph of the Anastasius dish taken by Crawford on the morning of the 25th July (Figure 2.10) demonstrates that Cookson's print pre-dates Crawford's; the Dish is notably more submerged in the soil in Cookson's print, and so I would suggest that this photograph was taken either on the 24th July or early morning on the 25th.

Seemingly pragmatic decisions like renumbering a series of negatives to align them with existing documentation can thus have far reaching effects. In the case of the negative of the whetstone, removing Crawford's negative number effectively separates the negative from the chronological sequence of events, obfuscating Crawford's presence at the site, and obscuring essential information about the chronology of the removal of individual finds. In the case of the social media push surrounding the 80th anniversary of the dig, this led to false information being presented to the public.[243] As each of the examples above demonstrates though these strategies of working with archival photographs were intended to extract information, they have ironically resulted in the loss of information. The pruning of personal and affective annotations and the overemphasis upon details contained in individual photographic images at the expense of seeing larger patterns in the photographic record, has limited the kinds of knowledge that can be drawn from the photographic collection.

[243] A similar video about the excavation produced by the British Museum and tweeted in July 2018 was viewed over 5000 times in a single day (British Museum 2018).



Figure 2.83 Confusion over dates. Screenshot from the National Trust Twitter Account. 17th July 2019.

2.6 Conclusions

I began this chapter, and have elsewhere suggested (Hodgett 2019) that as an archaeological photographer Crawford is an absent-presence in contemporary accounts of Sutton Hoo. His photographs are still in circulation in the present—a vindication of his claim to be the official photographer of the excavation—yet these photographs are routinely decoupled from any acknowledgement of his presence as a photographer.[244] Pervasive accounts of archaeological photography which frame photographic practice as detached from social interaction or personal subjectivity coupled with methodological approaches to archaeological archives which seek to extract information and treat photographs as individual images divorced from their material form or archival context have only acted to further obscure Crawford's presence. Yet in Box Two both the content of the photographs and Crawford's annotations and labels, present a clear vision of a highly personal, affective experience of the excavation. Crawford's presence as a photographer who—far

[244] Most recently being featured on the cover of the August 2019 issue of *Antiquity* and in the documentary "Raiders of the Lost Past: The Sutton Hoo Hoard" screened on BBC 4 on 4th September 2019. I played a small role both in the selection of the cover photograph and advising on photographs for the documentary.

from acting as a disengaged technician—actively participated in the social landscape of the excavation, is clear in his lightly humorous touch in presenting his fellow archaeologists, and his commitment to archiving not only pragmatic details, but also personal reminiscences and anecdotes. Photographs that have been used as records of excavation may have many more complex resonances; as markers of individual and group identity, personal mementos, playful in-jokes between friends. The lines between professional practice and personal experience are sometimes highly blurred. These details combine to present a vision of archaeology as a lived practice that is far more nuanced, complex, and fundamentally human than the visions of archaeological excavation propagated by the uncritical circulation of individual images which conform to scientific visual conventions, or studies of photography which explore only the devout adherence to the 'visual grammar' of archaeological photography.

The tension between the lived experience of excavation and the staged vision of archaeology as a discipline is felt in the management of the set of prints and negatives in the British Museum as those details that speak to the haptic and affective are pruned out. The presentation of archaeological excavation as a scientific and systematic practice is not limited to the 'field' as it has traditionally been understood, but extends into the ongoing management of the archive and the questions which researchers bring to archaeological photographs. There are implications here for archival, exhibition and publication practices; as the manner in which archival photographs are treated in each of these forums acts to perpetuate assumptions about the practice of archaeological photography as detached and depersonalised and can constrain possible future avenues of enquiry. I felt this most keenly when after having an article on the materiality of Crawford's photographs accepted for publication, I was informed that the mounts of the prints would not be included in the published figures on the basis that they represented too much 'empty space'. As long as archaeologists refuse to wholeheartedly engage with the theoretical and practical implications of the materiality of photographic collections and the role which the archive plays in meaning making then other crucial stories from the history of the discipline will remain obscured. Rejecting the language of 'absence' and scientific detachment is one of the first steps towards encouraging techniques of working with archival collections as material traces of events which reflect the situated presence of archaeologists.

In working between the parallel archives of the British Museum and the collection housed in the Institute of Archaeology, and highlighting the divergent formation processes at play in these collections I have begun the process of re-emphasising Crawford's presence in the British Museum collection. Taking an assemblage approach makes it possible to weave the history of this connected archive back into the wider story of the formation of Crawford's archives. I have already approached

the British Museum to lobby for some kind of acknowledgement of Crawford to be incorporated into the existing display in gallery 41, as well as furnishing them with information regarding the dating and mis-labelling of several photographs. Another possible pathway would be the exchange of a digitised set of the Institute's prints with the British Museum, enabling a comparison between the negatives and subsequent family trees of prints.[246] But re-establishing Crawford's presence does not simply have to be an exercise confined to the exchange of archival material behind institutional doors. The light-hearted and humorous aspects of Box Two have led me to experiment with my own playful interactions with the archive. On 25th July 2019 as part of a social media takeover run with *Antiquity* I live-tweeted each of Crawford's photographs at the exact time he would have taken them. In doing so encouraging followers to begin to think about what the temporal relationships between the photographs could reveal about Crawford's behaviour.

I also began to make gifs of Crawford's photographs, using technology to animate sequences of images of individual finds. The jerky repositioning that takes place in the transition between the frames goes a long way towards foregrounding the movements Crawford would have made to transition between taking each photograph. I then began to make collages of Crawford's photographs, layering multiple images together. These collages have been reproduced in this chapter as Figure 2.44 and Figure 2.61. Making a collage of the trench developed my thinking in several ways. As Crawford's photographs rarely captured the trench in its entirety, the collage was a useful visual aid in thinking through the spatial layout and material affordances of the site. In layering photographs together, it was possible to juxtapose multiple visions of archaeological labour (and rest), bringing together in a single image the diverse range of ways the excavators inhabited the site throughout the week. The resulting trench scene is crowded, overflowing with the presence of the excavators, who sometimes appear in several locations within the collage, thus intimating at ghostly trails of movement.

The collages were inspired by the presence in both Crawford and Brown's photographs of the excavation of double exposures (Figure 2.84 & Figure 2.85). Though Crawford dismissed double exposures as a technical failure, such images excel at making prominent both the serial and temporal connections between photographs, literally combining points in time and space into a single image.[247] The chronological relationship between the two exposed scenes is unclear, thus seriality (the order in which they were exposed) becomes less vital in understanding these images than the

[246] See Edwards and Morton (2015) and Riggs (2019) for a discussion on family trees in photography.
[247] "Only one double exposure, and that fortunately quite unimportant" (Letter from Crawford to Phillips. 4 August 1939. SH-PHOTOG_EXCAV I, 1939. British Museum). Interestingly the double exposure Crawford references in this letter, is not the double exposure printed in his archive in the Institute.

recognition of the durational flow of time between the two. Any series of photographs taken will be temporally linked, but it is only in the case of the double exposure that this link is manifested so clearly. Each form of playful intervention highlights the potential for work with archives that extends beyond more traditional forms of archival research.[248]



Figure 2.84 Double exposure in Brown's Photo Album. Print 64. Basil Brown Black Photo Album. British Museum.

[248] Inspired by the social media work of Adam Koszary for the Museum of English Rural Life.



Figure 2.85 Double exposure in Box Two. Print 2.45

In the previous chapter I argued that the archival formation process was not completed within Crawford's lifetime, but was an ongoing process driven by a number of actors. In this chapter I have continued to demonstrate on a micro-scale that Crawford's photographs came-into-being through extended assemblages of people, places and things. Crawford did not work in a vacuum. His relationships with the other excavators, the technology of his camera, the shifting surface of the soil, even the weather all played roles in determining the kinds of photographs taken at Sutton Hoo. Revealing each of these presences in the archive has required a combination of methodological approaches; from working with details contained within individual photographic images, or the material presentation of photographic prints, responding to the spatial, temporal and sequential relationships between the photographs in Box Two, to bringing photographic collections dispersed across institutions into dialogue with each other. Conducting an archaeology of archives requires adapting each of these methodological approaches, and working across these scales of enquiry. Moreover, an archaeology of photographic archives must be premised on the presence of these multiple actors, and must be conscious of which presences are foregrounded in histories of archaeology and which are overlooked or actively erased—a theme I pick up in the following chapter.

3 ‘Our Footsteps in these Sands of Time’

3.1 Our Footsteps in these Sands of Time

On 19 January 1952 Crawford scrambled up the side of a sand dune, leaving behind him a trail of footprints as he planned the extent of a ruined fort on the banks of the Sudanese Nile. Before he did so, he paused briefly—“chiefly because of the beauty of the sand-drift”—and photographed the patterns the wind had made in the sand (Figure 3.1). Later that day he mused in his diary “The sand dunes are very beautiful…I took some views…before we began to walk over them (as we were obligated to)…Our footsteps in these sands of time will be obliterated by a few strong winds” (MS Crawford 130.88). From Sudan, let us travel back to Crawford’s archive to consider a second print (Figure 3.2). The photograph is of Crawford’s father’s grave. What little Crawford knew of his parents—both of whom died before Crawford reached the age of eight—he heard through the filter of the memories of his aunt Dora, who “had a complete knowledge of family relationships” (Crawford 1955:12). In the present, the print is entangled within its own set of relationships within the archive. The photograph of the grave sits in Box 39 which mixes formal posed photographs of Crawford as a child, group photographs of Crawford as an adult attending various society gatherings, interspersed with more informal snapshots of archaeological colleagues, and photographs taken by Crawford of his aunts. Print 39.86 bears a physical weight that matches its psychological heft; the gilt-edged card barely flexes enough to thread through the slots cut into the brown card mount. There is something jarring about this photograph, mounted like one of Crawford’s archaeological studies of grave-stones, mixed in with photographs of Crawford’s living family and colleagues. The inclusion of the print in this box attempts to force—much like Crawford forced the stiff cardboard corners of the print into the brown mount—a relationship between Crawford and his father. It is a relationship forged, not from hours spent together or ties of affection and memory, but through the arrangement of photographs and paper in the archive.[251]

Both the photograph of the sand dune, and the photograph of the grave appeal to a sense of genealogical lineage. If the photograph of the grave refers to Crawford’s biological family structure, Print 17.86 is also an attempt to articulate something akin to a familial relationship between Crawford and a previous generation of archaeologists and ‘explorers’. Crawford lifted the phrase

[251] The print is not the only example of Crawford attempting to archive his family history. Print 39.50 is a photograph of a painting of Crawford’s great-grandfather Admiral Sir Edward Foote, alongside a miniature painting of Crawford’s grand-mother. Print 39.57 is a photographic reproduction of a sketch of Crawford’s great-grandmother Dorothy Elizabeth Crawford. Crawford preserved family papers in his archive (MS Crawford 102, 114, 115,117 & 118) and attempted to chronicle his family history in his autobiography, a rough draft of which can be found in MS Crawford 107.62-76, but this was rejected by his editors at Weidenfeld and Nicholson (MS Crawford 107.94).

"our footsteps in these sands of time" from the poem *A Psalm of Life* written in 1838 by the poet Henry Wadsworth Longfellow. The poem exhorts its—presumably white European male—readers to draw inspiration from 'great men' in history and leave their own tangible mark on the world to inspire future generations. As I noted in the introduction, histories of archaeology are too often framed in terms of the successive accomplishments of individual 'great men' forming a canon resembling a genealogical structure. I have already noted Crawford's interest in these canons, and his reverence for figures like Flinders Petrie, George Andrew Reisner and General Henry Lane Fox Pitt Rivers. It is this materialisation—through photography and the archive—of a relationship between Crawford and the so-called 'great-men' in the history of archaeology and Sudan that is the focus of this chapter. I argue that contrary to his aerial reputation in the present, there is a strong case to be made that Crawford hoped that it would be his work in Sudan that would cement his legacy. To this end I explore over 500 photographs taken by Crawford at sites spread across Sudan in the years between 1950 and 1952. In the present these photographs may be found in Boxes 14, 16, 17, 27, and 37 of Crawford's photographic archive, while relevant written papers may be found in Boxes 91, 95, 129 and 130 of the Weston Library.[252] In focusing on this particular sub-collection of photographs and archival material, I want to highlight an aspect of Crawford's legacy that has not previously been given the acknowledgment it requires; his relationship to Empire.

[252] There is also correspondence in the British Academy archives between Crawford and Mortimer Wheeler in regards to the British Academy Grant which he received for his 1951-2 expedition.

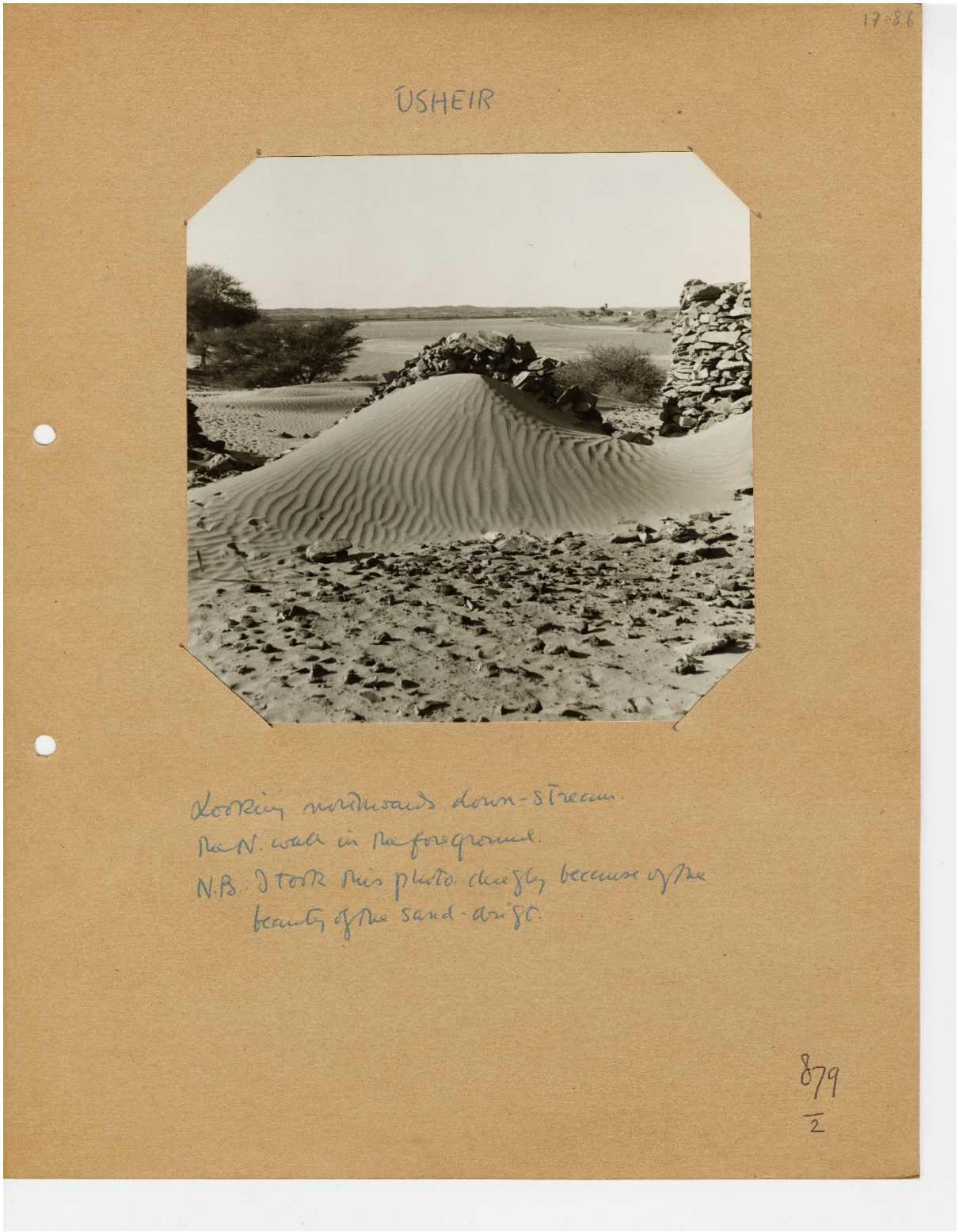


Figure 3.1 The beauty of the sand drift. Print 17.86.



Figure 3.2 Crawford's father's grave. Print 39.86.

Empire had never been far from Crawford's life. He was born in Mumbai, the son of a British Civil Servant.[255] As a schoolboy he was plied with copies of the *Daily Graphic* which touted picture updates of "scenes at the front" from Africa (Crawford 1955:23). Several key moments in Crawford's early years can be understood through the lens of Empire; the folk revival movement so encouraged by Crawford's early mentors Carlie and Harold Peake was a reaction to racial anxieties bought about by the exposures of Empire, and the geography diploma which Crawford undertook at Oxford was designed "very much with the practical needs of Empire in mind" (Hauser 2008:8-11). His second qualification—a diploma in anthropology from the Pitt Rivers Museum—was also well attended by those who were preparing to enter the Sudanese civil service (Crawford 1955:79). It was not just these specific courses which primed young men for civil service roles overseas, as institutions both Oxford and Cambridge functioned as "incubators" for the colonial service (Deslandes 2005:37).[256] It should come as no shock that with these early influences priming him Crawford should have taken so well to work in Sudan.

And yet, despite the fact that Crawford's Sudanese material comprises a substantial portion of his archive, Sudan is almost totally absent from discussions of Crawford. In Hauser's biography of Crawford, his time in Sudan occupies a total of five pages (2008:24-25, 253-255). The most sympathetic and detailed reviews of Crawford's work in Sudan come from those working in the field of Sudanese archaeology themselves; D.N. Edwards describes Crawford as a "notable champion" of Sudanese archaeology devoid of "Egyptocentrism" (2004:7-8). Rączkowski and Drzewiecki describe Crawford's work as "monumental" and hail him as the first archaeologist to demonstrate an interest in the Middle Nile Region (2008:2). Yet even in these accounts, Crawford's work is referenced in introductions, never entering into extended discussions in the main body of the texts. As with so much of Crawford's life and work, those aspects which cannot be directly related to his aerial legacy have been overlooked.[258]

This erasure of the presence of Sudan in Crawford's life and work alludes to the arguments of Moro-Abadía that the internalist approach favoured in most histories of archaeology mean that

[255] In official record Charles Edward Gordon Crawford is remembered as serving as a judge in Ratnagiri, India but Kulkarni (2010) has demonstrated that C.E.G. Crawford had an alternative legacy as the founder of a naturalist club known as 'The Fellowship of the Naked'. Many thanks to Martyn Barber for bringing this reference to my attention.

[256] Brown notes that between 1899 and 1956 of nearly 400 men who joined the Sudan Political Service 285 were Oxbridge graduates (2017:24).

[258] Crawford's aerial legacy also ties him to the field of British prehistory, as in the following comment by Daniel; "We associate Crawford's name among other things with the great air discoveries of the twenties—the Celtic fields, the Stonehenge Avenue, Woodhenge, Little Woodbury, to mention a few". (Review of *Archaeology in the Field* by Glyn Daniel dated 26 March 1953. Newspaper clipping in British Academy Archives MWA/6/1).

archaeologists have "traditionally omitted the political implications of their science" failing to acknowledge the extent to which archaeology as a discipline was deeply implicated in the colonial project (2006:10). Brusius (2017) and Riggs (2019) have noted the resistance that is often faced when such links are spoken of and Quirke argues that studies of "colonised terrain" are neglected "because the observable history exposes too painfully the barbarism of colonising Europeans" (2010:5). On a more anecdotal level, this reticence to approach Crawford's Sudanese photographs seems to stem from the enduring affectionate vision of Crawford as a charming eccentric, whose worst character traits extend only as far as scandalising local archaeological associations (e.g., Figure 1.10). Dan Hicks (2018) has characterised this as a "Monty Python Moment" in the process of writing disciplinary histories, where ripping yarns of hijinks, eccentricity and 'derring-do' are used as a means of brushing over the uncomfortable legacies of the discipline.[259] To look—to really look—at Crawford's work in Sudan is to see this comfortable illusion shatter.

And so, my second task in this chapter is to explore for the first time the legacy of Crawford's work in Sudan and to make explicit the colonial framing of his archaeological and photographic work in this context. I turn to theories of the temporal as a mechanism for approaching this reassessment of Crawford's photographic practice. Far from the suggestion that archaeological photography freezes a single moment in time, throughout this chapter I demonstrate that it is the temporal complexity of photography that underlies Crawford's photographic practice in Sudan, and also provides the key to reading against the archival grain. Though my aim is to demonstrate that archaeological theories of time—and in particular the concepts of duration and return—can work towards shining a spotlight on Crawford's participation in racist and colonial theories and practices and in doing so disrupt the comfortable illusion that he was somehow exempt from these ideas, this must be qualified by the recognition that the temporal work of photography and archaeology have historically been leveraged in support of white supremacist theories of race and have directly contributed to colonial expansion (Fabian 1983). As I demonstrate in Section 3.2 these power dynamics manifested in the intensely personal and visceral politics of bodily control during excavation. At the same time—as I noted in the introduction—to recognise the power dynamics at play in archaeological photography should not elide a consideration of the situated presence of the individual behind the camera. While working within the broader colonial frameworks common to archaeology at the time, Crawford's

[259] As an example, Bohrer's (2011) *Archaeology and Photography* has an entire chapter titled 'Travel, or Presence' which does not at any point mention colonialism. Indeed, it takes over 32 pages before Bohrer even admits that the interpretation and depiction of sites in colonised countries might have been spurred on by "ethnocentric, if not racist" speculation (2011:101).

experiences in Sudan held for him very personal resonances, and his presence and priorities as an individual photographer can be detected throughout his photographic practice.

In the previous chapter I spoke of how examining Crawford's movements around the burial chamber at Sutton Hoo, and the temporal and spatial relationships between his photographs could reveal Crawford's presence behind the camera. Here I use similar techniques to reflect on Crawford's photographic practice in Sudan and the significance which Sudan held for Crawford, but doing so invites the consideration of extended temporal and spatial scales at play in the photographic process; a shift from a consideration of days to decades, from just over a hundred photographs to hundreds, and from movements of meters to many hundreds of miles. Moreover, this requires considering how archives form over extended periods of time and at different stages in Crawford's life, and how this ongoing work on Sudan might speak to Crawford's personal motivations. In particular I come back to the concept of 'Return' which I developed in the introduction, and the suggestion that photographs have the potential to gather within themselves references to multiple temporal events. These temporal references may be manifest in the content of the photographic image, in the presentation of the photograph as a physical object, or in the process of taking the photograph. Throughout this chapter I explore examples of Crawford using this multi-temporal potential of photography to not only enact symbolic acts of return to moments from his own life, but to retrace the steps of a previous generation of archaeologists, anthropologists and colonial 'explorers' in Sudan whom he sought to emulate.

Consequently Section 3.2 sets out Crawford's introduction to Sudan in 1913, and explores the longer-term historical context for archaeological involvement in the region. Section 3.3 examines examples of photographs taken by Crawford in the 1950s and seeks to relate them, not only to the photographs immediately preceding and following them, as I did in Chapter Two, but to a much broader range of references across Crawford's lifetime, demonstrating that in taking these photographs Crawford used photography to symbolically return to his experiences in 1913 and to relate his work to a range of literature on Sudan which he consumed between 1913 and 1950. Section 3.4 expands this consideration of return, and argues that Crawford's second return to Sudan with the 1951-52 British Academy expedition was explicitly framed as the recreation of the kind of journey made by European 'explorers' in Sudan in the 19th and early 20th century.

3.2 Sudan 1913-1914

3.2.1 Jebel Moya

In 1913 Crawford was at a loss. He had spent 1912 gaining a Diploma in Anthropology in order to join the Mana expedition to Rapa Nui organised by Katherine and William Routledge (Figure 1.19). But the expedition turned into "a fiasco"; Crawford made it only a few months before abandoning ship following a clash of personalities with the Routledge's (Crawford 1955:89).[262] He returned home to his aunts at the age of 27 in dire need of employment.[263] Then an advert in *The Times* sparked the beginning of a new obsession: the pharmaceuticals giant Henry Wellcome was looking for an archaeologist to assist with annual excavations at Jebel Moya in Sudan (Arkell 1959:232).[264] As Crawford took pains to point out in his autobiography, paid jobs in archaeology were few and far in between—the opportunity was too good to be missed (1955:74). Though Crawford had dabbled in excavation prior to 1913, it was decided that he would benefit from additional tutelage under the watchful eye of George Andrew Reisner before travelling on to join Wellcome at Jebel Moya (Crawford 1955:91).[265] Jebel Moya is situated in the Gezira plain, about 250km south of Khartoum (Figure 3.3). The programme of excavations were some of the largest ever attempted across Africa, unearthing nearly 3000 graves over four seasons (Brass 2009:120). I do not want to dwell overlong on the historical details of Crawford's time in Sudan in 1913, as there are a number of publications which discuss his role in the Wellcome excavation, including several accounts written first hand by Crawford (1950c, 1951a, 1955; Crawford and Addison 1951). Moreover, as part of a restrictive contract signed with Wellcome, Crawford was not allowed to take any photographs himself, instead being forced to call upon the services of the official excavation photographer, Arthur Barrett (Crawford and Addison 1951:4; Crawford 1955:101).[267] However, in a chapter that takes as one of its main theoretical considerations the role of duration and the power dynamics manifest in the extended temporal circumstances surrounding the taking of photographs, to understand the significance of Wellcome's—and by extension Crawford's—presence in Sudan some broader

[262] See Van Tilberg (2002) on the Rapa Nui expedition. To hear Crawford tell it, he was not the only one to find working with the Routledges challenging, in a letter to Gordon Childe he complained that a colleague on the Mana would often go ashore whenever possible just to "get away from the Routledges" (Print 12.118).
[263] Crawford was to describe his younger years as "practically penniless" (1955:89). This was not strictly true. He had been living on a pension paid out to orphans of employees the civil service along with a sum of £500 left to him by his father. The pension stopped paying out by the time he turned 21 in 1907, and the £500 was all but spent, but Crawford was able to borrow money from the Peakes. Many thanks to Helen Wickstead for suggesting I look more closely into Crawford's finances.
[264] Later Sir Henry Wellcome. Wellcome had made his fortune as the co-founder of the Burroughs, Wellcome and Co. pharmaceuticals company in 1880.
[265] The influence of Reisner on the organisation of Crawford's photographic archive has been discussed in Chapter One.
[267] Both Crawford and Reisner bemoaned Wellcome's guarded nature (MS Crawford 95.84).

historical context is necessary. And so, we must go back to 1881, five years before Crawford was born.



Figure 3.3 Jebel Moya and Abu Geili. Fig. 1 in Brass and Schwenniger (2013).

1881 was the year in which Muhammad Ahmed, declared himself al-Mahdi al-Muntázar (a long expected eschatological figure in Islam) and roused the Sudanese population in rebellion against the deeply unpopular Ottoman-Egyptian rule (Nicoll 2004:25). The Mahdist rebellion swept across Sudan, and surrounded the last stronghold of Anglo-Egyptian troops in Khartoum. Ignoring orders, General Charles Gordon refused to withdraw and was subsequently locked into a year-long siege. British relief efforts were slow to mobilise, at times it seemed that the very land itself resisted them; the Atbara River dried up so that it was impossible to travel down it by boat, the route across the desert from Suakin could not provide enough watering spots for all the soldiers, and a proposed route from Wadi Halfa required a march of over 400 miles (Colville 1889:28-32). When the relief effort did eventually reach Khartoum, they were two days too late. Despite the Mahdi's repeated attempts to encourage Gordon to surrender, and his explicit instructions that Gordon was not to be

harmed, Gordon was killed when the city fell on the 26th January 1885 (Nicoll 2004:221).[268] Gordon became a tragic-martyr figure in the British consciousness. For years following the defeat, authors like Rudyard Kipling, Arthur Conan Doyle and A.E.W. Mason painted the Mahdist state as an unrivalled threat to the British Empire and the Mahdi's supporters as dangerous extremists who left a trail of destruction in their wake (Glazzard 2017). As a schoolboy at Marlborough college, Crawford's education was suffused with the voices of these authors and he fell quickly "under the spell of Ruskin and Kipling" (MS Crawford 107.18, 36, 166).[269]

The Mahdi did not live long to capitalise on his victory, dying in June 1885, leaving his successor Abdallahi ibn Muhammad—known as the Khalifa—to rule from the newly established capital at Omdurman (Reid 1938:210). Historian Florian Krobb has characterised the Mahdist rule as "the fiercest, most successful and longest instance of resistance against European domination by an indigenous African population", but this resistance was sorely tested (2012:143). Anglo-Egyptian troops returned to Sudan in 1896 led by Sir Herbert Kitchener (1840-1916). The Anglo-Egyptian force assembled in 1896 had learnt the lessons of the siege of Khartoum, and the re-invasion was preceded by the construction of 760 miles of railway line (Nicoll 2004:238). Retribution for Gordon's death and the need to 'rescue' the Sudanese people from the Islamist state were publicly touted as the prime motivation for the military campaign (Urban 2005:194; D. Hicks 2020:81).[270] When Kitchener's troops finally clashed with those of the Khalifa near Omdurman in 1898, 12,000 of the Mahdi's soldiers were killed, alongside a series of punitive acts; the sacking of the Mahdi's tomb, the desecration of the Mahdi's remains, and the murder of the Khalifa's wounded followers (D.Hicks 2020:124; Karsanī and Hassan 2002:12).[272] The massacre marked the beginning of a process which would culminate in the Anglo-Egyptian Condominium agreement of 1899, which informally bought

[268] The Mahdi's instructions in this regard are attested to by Budge (1905:707).

[269] "We knew all the chief characters…and used to wear buttons with photographs of the faces of generals- Buller, Sir George White, Methuen, Roberts and Kitchener." The literary influence lasted well into adulthood, as Crawford numbered both Kipling and Conan Doyle amongst his favourite authors in his autobiography (Crawford 1955:310).

[270] These justifications fit a broader pattern identified by D. Hicks as preceding British punitive expeditions; the evocation of a "crisis" requiring any means necessary to remedy, followed by demands for retribution in response to a perceived slight (2020:50). Hicks also notes the significance of the diamond jubilee of Queen Victoria in 1897 as precipitating military campaigns across Africa (2020:51).

[272] The military historian Urban attempts to relive Kitchener from blame by arguing that he only exhorted his troops to "remember Gordon" (2005:194). But it is clear that several commentators present at the time, among them Winston Churchill, held Kitchener directly responsible for these atrocities. Dangling the memory of Gordon in front of troops, was nothing less than an incentive to a level of violence that shocked even Churchill, who wrote of the "inhuman slaughter of the wounded" (cited in Urban 2005:193-194). Those who escaped this slaughter were conscripted into labour gangs (Brown 2017:21). See Gordon (2019) for analysis of the role of photography in the massacre—though note that this article reproduces a number of photographs of dead and dying Mahdist soldiers, a decision I find to be highly ethically questionable.

Sudan into the British Empire.[274] Beyond this political enfolding, Sudan was brought back to Britain through the extraction of objects; weapons plundered from the bodies of the Khalifa's massacred army were collected as 'souvenirs' and many found their way into private residences and museum collections. [275]

Despite the shocking level of violence, well into the twentieth century Kitchener's campaign—as with many other acts of imperial and colonial expansion—was framed by historical commentators as necessary to rescue "the hapless Sudanese" from the "brutal tyranny" of the Khalifa (e.g.,Theobold 1950:254; cf. Ruibal 2010:41).[276] Once the Anglo-Egyptian Condominium agreement was in place Kitchener—then Governor-General of Khartoum—personally invited Wellcome to develop a number of initiatives in Sudan to "acquire the confidence of the people, to develop their resources and to raise them to a higher level…*for…moral and industrial regeneration*" (Kitchener cited in Karsanī and Hassan 2002:13, cf. Brass 2009:120).[277] Wellcomes' early attempts at winning hearts and minds were explicitly focused on medicine, founding the Tropical Research Laboratories in Khartoum in 1901 and the Wellcome Medical Hospital Dispensary in Uganda in 1905 (Adeel 2013:88). But by 1911 he began to develop a new approach: excavation. Excavation functioned as a tool of colonial control just as efficiently as military occupation.

Jebel Moya was organised in a military fashion complete with a Camp Commandant and armed guards (Crawford 1950:207).[278] Wellcome's avowed goal was to employ as many members of the local population as possible regardless of the actual demands of the work itself, by the close of the 1913-1914 season counting close to 4000 people in his employ (Brass 2009:120). Such was the surplus of labour that men hired to excavate were instead set to side projects—like the construction of the House of Boulders—simply to occupy their time (Adeel 2013:89).[280] Crawford wrote "All who applied for work were taken on… [a]s may be imagined, the archaeological work suffered" (1950c:207; cf. MS Crawford 95.82). Money was no object. Wellcome was far more concerned with

[274] The condominium arrangement lasted until 1st January 1956 (Karsanī and Hassan 2002:11). See Trout Powell (2003) for a discussion of the layers of colonialism and racism at play in the Anglo-Egyptian rule of Sudan, Brown (2017) on the questionable legality of the condominium arrangement, and Hicks and Mallet (2019) and D. Hicks (2020:55, 81) questioning the extent to which indirect rule or 'informal empire' can actually be considered indirect.

[275] See for example Pitt Rivers Museum database entry 1917.25.29.1-25.29.2 for a sword with a provenance history given as "from the battle of Omdurman".

[276] In 1905 Reginald Wingate estimated that 75 % of the Sudanese population died between 1881 and 1898 (Budge 1905:675). The *Cook Handbook for Egypt and the Sudan* (1905) featured a table listing population numbers with a separate column headed "Loss under Dervish Rule" (1905:675)

[277] My emphasis.

[278] See Chadha (2002) and Baird (2017) on similarities between the organisation of dig sites and military encampments.

[280] See Plate 5 in *Said and Done* (1955).

moral currency. He withheld wages as a means of controlling the spending of his employees (Adeel 2013:91) and expected absolute teetotalism, awarding membership to the "Order of the Peacock" for any employee who remained sober for more than six weeks (Crawford 1955:98).[281] Wellcome wrote to Crawford that he implemented this programme because his Sudanese employees "have not yet developed the sense of honour and self-respect which one expects from Europeans"(Letter from Wellcome to Crawford. 4 December 1915. WA/HMM/CO/Ear/311. Wellcome Collection). Adeel has demonstrated that these measures were taken to such an extreme that Wellcome was cautioned by his peers that his practices left him open to accusations of abuse (2013:92-95). Crawford himself recalled "the long-suffering villagers" and Wellcome's "very severe written contract" (1950c:207).

It is vital to acknowledge that the presence of archaeologists like Crawford in Sudan was made possible through acts of colonial violence; as Professor of Archaeology John Garstang wrote; "The pacification of the Sudan…opened up a new field for the spade" (cited in Opper 2014:9). Archaeologists not only benefitted from colonial expansion but actively upheld its power structures. Wellcome's provision of mass employment through excavation acted to legitimate the British state's claim that military intervention was to the benefit of the Sudanese people. The moralising and paternalistic tone to Wellcome's attempts to control the freedoms of his excavators—even outside the bounds of their work—stemmed from deep-seated assumptions of British racial, moral and cultural superiority over their Sudanese counterparts. Crawford's own reflections demonstrate Wellcome's organisation of the excavation at Jebel Moya went well beyond measures required to maintain contemporary standards for 'scientific' excavation. As Brown writes in her study of body-politics, "the experience of empire was intimately expressed on and through Sudanese bodies. Imperialism was immensely personal—a visceral reality as much as a political system" (2017:6).

Archaeological photography was a key tool in these politics of bodily control. In Chapter Two I argued that developing conventions for site photography had multiple functions, acting not only as a record of excavation and to impress upon the viewer the scientific credentials of the excavator, but also working in a didactic sense to prescribe sanctioned ways of moving around an archaeological site. I am reminded of Mortimer Wheeler's photograph of 'Chaos' and 'Discipline' (Figure 3.4) which I introduced in Chapter Two (Figure 2.35) as illustrative of this point. To look at the image again through the lens of empire is to understand that chaos is visually defined by the unregulated movement of people of colour, and order is demonstrated by disciplining those same bodies. As

[281] Members of the Order were presented with a peacock's feather from birds specially shipped over from England to form a makeshift menagerie in camp; a "magnificent absurdity" (Crawford 1955:98). Though Wellcome's European employees were also expected to maintain these standards, Crawford recalls that they often snuck off to indulge in the odd tipple (1955:100).

Chadha notes, the subtext of Wheeler's image is clear; chaos stems from "an incapable colonial administrator who cannot control the natives" (2002:385). The elaborate posing of local archaeologists in such photographs had nothing at all to do with the demands of archaeological excavation or the effectiveness of the resulting image in communicating archaeological knowledge, and everything to do with enabling and representing subjugation (cf. Chadha 2002). Crawford was not exempt from participating in these strategies of control and domination, as we shall see these broader entanglements between archaeology, photography and colonialism can be detected in his photographic and archival practices across his lifetime.



Figure 3.4 Chaos and Discipline. Wheeler (1954).

3.2.2 Abu Geili

Just as during the Rapa Nui expedition, Crawford found himself in conflict with other members of the excavation at Jebel Moya. A key antagonist was James Dixon, who was openly critical of the methods of Crawford's mentor Reisner (Crawford 1955:96). Reisner's approach—though detailed—was painstakingly slow and clearly at odds with Wellcome's avowed aims of simply employing as many people in manual labour as possible. Crawford was a staunch defender of Reisner calling him "an excavator of the first rank" and comparing him to his archaeological hero Pitt Rivers (1955:91, 1950c:208).[283] Crawford—who could never overlook a perceived slight and had an uncanny aptitude for making a bad situation worse—recalls in his autobiography "I was something of a fanatic then, and apt to be difficult in consequence" (1955:96).[284] And so shortly after arriving at Jebel Moya Crawford was packed off to manage a secondary excavation at Abu Geili.

At Abu Geili Crawford's team of excavators uncovered a Meroitic Settlement, alongside a later Funj cemetery.[285] The creation of archaeological knowledge, Riggs argues, is at once a "collective" yet "inherently unequal endeavour" involving the "social stratification" of those involved (2019:3, 171). At Sutton Hoo a clear hierarchy of excavators emerged in Crawford's photographic and archival practices. At Abu Geili Crawford also 'socially stratified' his fellow excavators; setting the local Sudanese workers he believed to be least skilled to dig test pits around the site while assigning a larger team—comprised of the more skilled Sudanese workers supervised by Egyptian *ruasa*—to work on the Meroitic settlement (MS Crawford 95.87).[286] The Egyptian *ruasa* had trained with Reisner; Crawford recalled both their "great skill in detecting differences in soil" and their warmth towards Reisner (MS Crawford 95.85-86; Crawford 1955:94). But unlike the circumstances of Sutton Hoo, Crawford demonstrated little rapport with his fellow excavators; he and Said Osman—the lead *reis*—clashed on several occasions.[287] Decades later Crawford clung to this grudge, characterising Osman as "surly" and "untrustworthy" (Crawford and Addison 1951:6). This public slander of Osman

[283] "[T]he man who did for Egypt what Pitt Rivers did for Britain" (Crawford 1950c:208).

[284] Among Crawford's papers is an extremely detailed proposal to update Wellcome's recording system. Crawford suggests increasing the recording sheet size, specifies exact measurements for margins and paper thickness, proposes a new system for perforating the paper, and spends almost an entire page debating the relative merits of different brands of carbon paper (MS Crawford 95.45-47). Given Wellcome's priorities, Crawford's input is likely to have hindered rather than helped. This would not be the only time that Crawford took well-intentioned initiatives that were not well received. At the Ordnance Survey Crawford's original work on the period maps of England were done without permission and during the First World War Crawford pioneered a map of the trench layouts which was swiftly confiscated by his superiors as a security risk (Crawford 1955:119).

[285] The Meroitic Period spanned the 4th Century BCE to the 4th Century CE. The Funj Sultinate existed between the 16th and 19th century. Note Crawford uses the spelling 'Fung'.

[286] The test pits were "regarded by the Egyptians as places of exile" (Crawford and Addison 1951:8).

[287] Crawford does not explain the exact source of the tension, but elsewhere mentions that several of the graves in the Funj cemetery were Islamic and that their excavation caused much distress to the Muslim *ruasa*.

in a forum where he was unable to defend himself speaks volumes of the power imbalances of the era, as well as giving air to racist stereotypes.

The complexity of this uneven balance of power is demonstrated most conclusively in one particular episode; Crawford attempted to plan the levels of the Meroitic settlement, using a notch cut into a tebeldi tree as a bench mark (Crawford and Addison 1951:3). But he encountered a set-back. Though the *ruasa* could easily differentiate between different floor levels in the settlement, Crawford could not. Archaeologists often speak of the process of acclimatisation upon reaching a new site that must be undergone before it is possible to detect with confidence the subtle changes in colour, texture and sounds made by the soil between each stratigraphic level. The inability to perceive what is obvious to others during this process is often a shameful experience (Van Reybrouck and Jacobs 2006). A recently promoted Sudanese foreman attempted to explain the floor levels to Crawford, but Crawford's response was not to question his own archaeological credentials, but the truthfulness of the Egyptian and Sudanese archaeologists around him—though he eventually concluded that they had no reason to lie (Crawford and Addison 1951:8).[288] Expressions of trust—or the lack thereof—Quirke has argued, were another of the ways in which European excavators expressed difference from local archaeologists; fellow Europeans could be implicitly trusted while the testimony of local excavators was always to be questioned (2010:45; cf. Riggs 2017).[289]

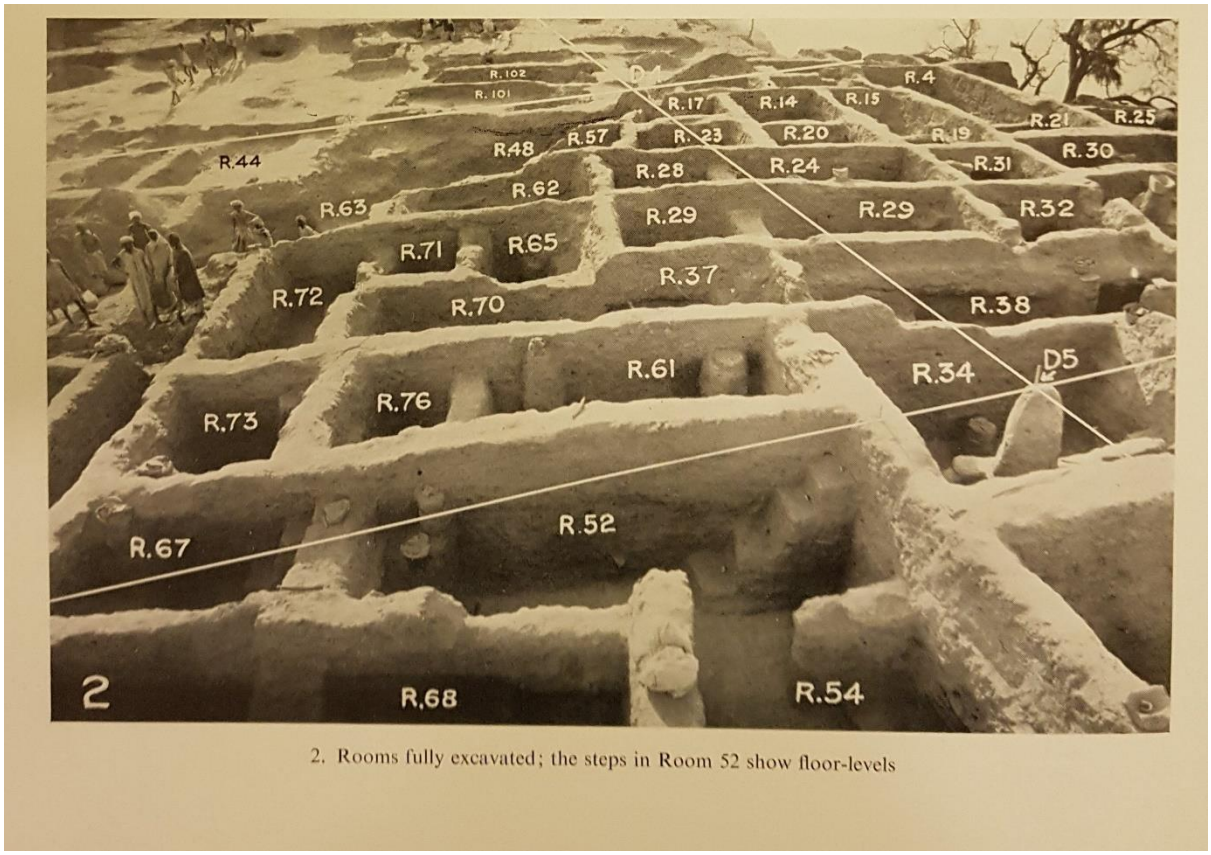
In a manner reminiscent of Crawford's incorporation of Atkinson's interpretation of the carved cup-marks at Stonehenge into his archive (Figure 1.13), Barrett and his camera were called upon to bear witness to Crawford's eventual acceptance of the interpretation of the Sudanese foreman. The lower segment of Plate VIII in the *Abu Geili* publication depicts the exposed settlement, and in the foreground a series of steps excavated in the corner of room 52 mark each identified floor level (Figure 3.5). Unlike Hauser (2007, 2008) and Bohrer's (2011) suggestion that archaeological photography is an attempt to mediate between the aspects of the archaeological record which do not survive into the present and the archaeologist's acute awareness of what would have existed in the past; here Crawford was ostensibly instructing Barrett to photograph part of the archaeological record that was tangibly present but which Crawford could not see. Far from the reassurance of the scientific credentials of the excavator which archaeological photography was meant to provide and the totalising certainty of the archaeological record, the ability of the camera to capture an

[288] In Crawford's notes he reports that the *ruasa* would recommend skilled Sudanese excavators for promotion to the rank of foreman (MS Crawford 95.86).
[289] See for example Wheeler's suggestion that "workmen…must be carefully teamed, to prevent the bad from corrupting the good" (1954:175). Though Flinders Petrie asserted that an inexperienced Englishman on excavation could not afford to "disregard the judgement of a well-trained digger" (1904:22). Cf. Mickel 2021.

'abundance' of detail acted to obfuscate Crawford's limited experience as an excavator (cf. E. Edwards 2015). Crawford did not need to be able to see the floor layers himself, he simply needed to direct a camera in the right general direction and trust to the skills of those around him to excavate down to the correct levels. The performance of preparing a site for photography was an opportunity for archaeologists to inscribe their credentials into the soil, and here—as at Sutton Hoo—it is essential to recognise who reaps the recognition for these skilled movements. In Plate VIII the elevated view which spans the site is that of Crawford as site-director and Barrett as photographer, while the men on the ground who whose knowledge and skill made the excavation possible crowd together in the upper left-hand corner, divorced from the results of their labour and from any expression of "individual identity" (Bohrer 201:73).[290]

The presentation of archaeological sites in this manner has given rise to the suggestion that archaeological photography can be framed through the metaphor of 'absence'. Though I sympathise that scholars who use this terminology are trying to express the lack of representation of archaeologists in front of the camera, my concern is that to speak of 'absence' is to imply that this lack is somehow incidental—that archaeologists simply were not present when photographs were taken. It is essential to recognise that the illusion of the de-populated site in archaeological photography does not appear by accident; it is a deliberately crafted vision of archaeology as a disciplinary practice and a means of emphasising the scientific credentials of a select few archaeologists while purposefully obscuring the contributions of others. This is not absence; it is the *erasure* of the presence of specific archaeologists.

[290] See Çelik (2016:137), Riggs (2019:143) and Baird (2017) for further examples of this visual trope.



2. Rooms fully excavated; the steps in Room 52 show floor-levels

Figure 3.5 Floor Levels at Abu Geili. Detail from Plate VIII in Crawford and Addison (1951).

Though in Figure 3.5 Crawford's distinction from the *ruasa* is articulated spatially; via the physical distance and elevated view looking over the expanse of the site, Crawford also believed that what separated him from the unnamed Sudanese foreman was temporal distance. Crawford wrote that the man's ability to see the floor levels was because "being himself closer to the primitive conditions we were revealing, he could understand them much better that I did" (Crawford and Addison 1951:8). This observation is accompanied by a reference to Plate VI, which depicts the foreman in question (Figure 3.6). The photograph is a three-quarter profile shot, which primarily focuses upon the man's face and upper body, and strongly echoes the racial type photographs favoured by anthropologists of the era (cf. Maxwell 2008).

The suggestion that the Sudanese foreman had more in common with past being revealed in the archaeological record than with Crawford is a racist pseudo-scientific trope common in both archaeological and anthropological theories of human evolution in the early twentieth century (Fabian 1983). While the earliest theories of evolution imagined all of humanity evolving along a single trajectory with different cultural groups at various stages in this process, in the mid-nineteenth century the prominent belief was that ethnic and racial groups exhibited "differing and

unequal talents and potentialities" for human progression (Trigger 1994:325). Racial theorists began to propose a "natural but static chain of excellence in human kind" (E. Edwards 1990:236). These theories led to the formation of models of racial hierarchy, where white Europeans positioned themselves at the pinnacle of capability and located Black Africans as occupying the lowest position on this imagined ladder of potential (Trigger 1994:326-327). These white supremacist theories of race were in turn used to justify violent colonial expansion, as the peoples being colonised were represented by race 'science' as inferior and thus incapable of self-rule (Trigger 1984:363; Moro-Abadía 2006:12; Maxwell 2008:4). Racial type photographs played a key role in these racist classificatory schemes, manufacturing the idea that a person's intelligence, moral capacity or level of 'civilisation' could be deduced from their physical appearance (Ewing 1994:112; Maxwell 2008).

Crawford had been introduced to these theories at the Pitt Rivers Museum; "The picture it painted of human society was that of a continuum in time and space consisting of peoples at varying stages of culture, from the Stone Age onwards…the acquisition of this way of looking at the world is one of the most valuable things I got from Oxford" (Crawford 1953:33-34). Crawford proposed his own variation on this model, drawing on a mixture of theories from Flinders Petrie, E.B. Tylor and Pitt Rivers in an article entitled 'Historical Cycles', in which he argued that human progress could be visualised as an ascending spiral (Crawford 1931). While most cultural groups followed the upwards trajectory of the spiral drawing ever closer to a higher "universal state", others branched off and remained frozen at the point of divergence, or even regressed (Crawford 1931:16). Thus, Crawford cheerfully informed readers of *Antiquity* "One of the best ways of conjuring up the past is to go there for a holiday. No time machine is required for the journey" (Crawford 1928a:3; cf. Crawford 1953:17).[292]

Baird argues that photographs like that of the unnamed archaeologist in Plate VI, manipulate the ability of photography to 'laminate' together multiple temporalities; simultaneously suggesting the extension of the past into the present through the 'survivals' of material culture and people (the there-then becomes the here-now), but also teasing the possibility of looking back through time, to

[292] There was an urgency underlying Crawford's call for archaeologists to time-travel in this manner. Crawford wrote that contact between "a higher (or more advanced) culture" with a "lower" culture, would result in the extermination of the latter; "Thus the Roman invasion killed late Celtic art in Britain, and Western civilisation has proved fatal to many primitive races" (1931:9). But unlike the Roman Empire, Crawford noted that the British Empire was bent to the task of recording details about the lives of those peoples which were dying out. The irony being—as art historian Nochlin points out "The same society that was engaged in wiping out local customs and traditional practices was also avid to preserve them in the form of records" (1991:67). Thus, Crawford's photographs take on a future trajectory too, looking ahead to an assumed future where all that remains of the people of Sudan and traditional ways of life are his photographs.

see in the modern world what would have been in the past (the here-now becomes the there-then) (2017:169; cf. Barthes 1977:44).[293] People like the unnamed archaeologist are caught in this 'lamination' of time, simultaneously presented as relics or survivals of the ancient world but disassociated from engaging with this heritage as archaeologists (Baird 2019:80).[294]

In drafting this chapter, the decision of whether to reproduce the photograph of the unnamed archaeologist is one that I have agonised over. In a chapter that takes as its topic some of the subtle and often unacknowledged ways in which racial violence has been enacted through archaeological photography, I cannot fail to acknowledge that the uncritical reproduction of photographs taken for racist purposes can actively extend the harm done by such photographs.[295] This harm is in addition to the ongoing legacies of colonialism in archaeology, the effects of which are still felt in the present. My decision to reproduce the photograph on the following page is predicated on two factors. Firstly, given that Crawford's archival and publishing practices have stripped the archaeologist of his name and credentials, I hope to at least join together some comment on the man's skilled expertise with the possibility of identifying him in the future.[296] Second, I have chosen to do so because of a detail in the image itself. On his wrist the unnamed archaeologist wears what appears to be a watch—here the combination of a device used for working with time and the ability of the camera to capture an 'abundance' of unintentional details combine to disrupt the fantasy of timelessness which the photograph was intended to create (cf. E. Edwards 2015; Baird 2019).

[293] In *Archaeology in the Field* Crawford recounted a conversation he had with a man using a rotary quern in Algeria; "It was almost as if I had been able to see and converse with an ancient Briton" (1954:141).

[294] Notably Plate VI appears in the publication alongside photographs of the site and samples of the finds from the cemetery and settlement, in an extension of the practice noted by Baird (2011, 2017, 2019) and Guha (2012) of posing living excavators with the material culture of the past.

[295] This argument has been made most prominently in the recent legal action bought against Harvard University by Tamara Lanier, for the rights of ownership over racial type photographs taken of Lanier's ancestors in 1850 (Hartocollis 2021). In the lawsuit, Lanier argued that by reproducing one of the photographs as the cover image for a conference programme, the university was directly profiting from slavery and denying agency to those pictured; "Their images, like their bodies before, remain subject to control and appropriation by the powerful, and their familial identities are denied to them" (cited in M.S. Schwartz 2019). Moreover, the suggestion that white academics often disproportionately gain social currency by working with colonial collections has been raised by Dr Hanin Hannouch during open discussion at the Photographic History Research Centre conference, "Photography and its Many Colours: Innovations, Emotions and Activism". 14-15th June 2021.

[296] Though—as Riggs cautions—simply adding names to historic photographs is not equivalent to addressing the deeper historiographic barriers to moving towards a truly decolonial or anti-racist discipline.



2. One of the Sudanese foremen employed on the site
See p. 6

Figure 3.6 The unnamed archaeologist. Detail of Plate VI in Crawford and Addison (1951).

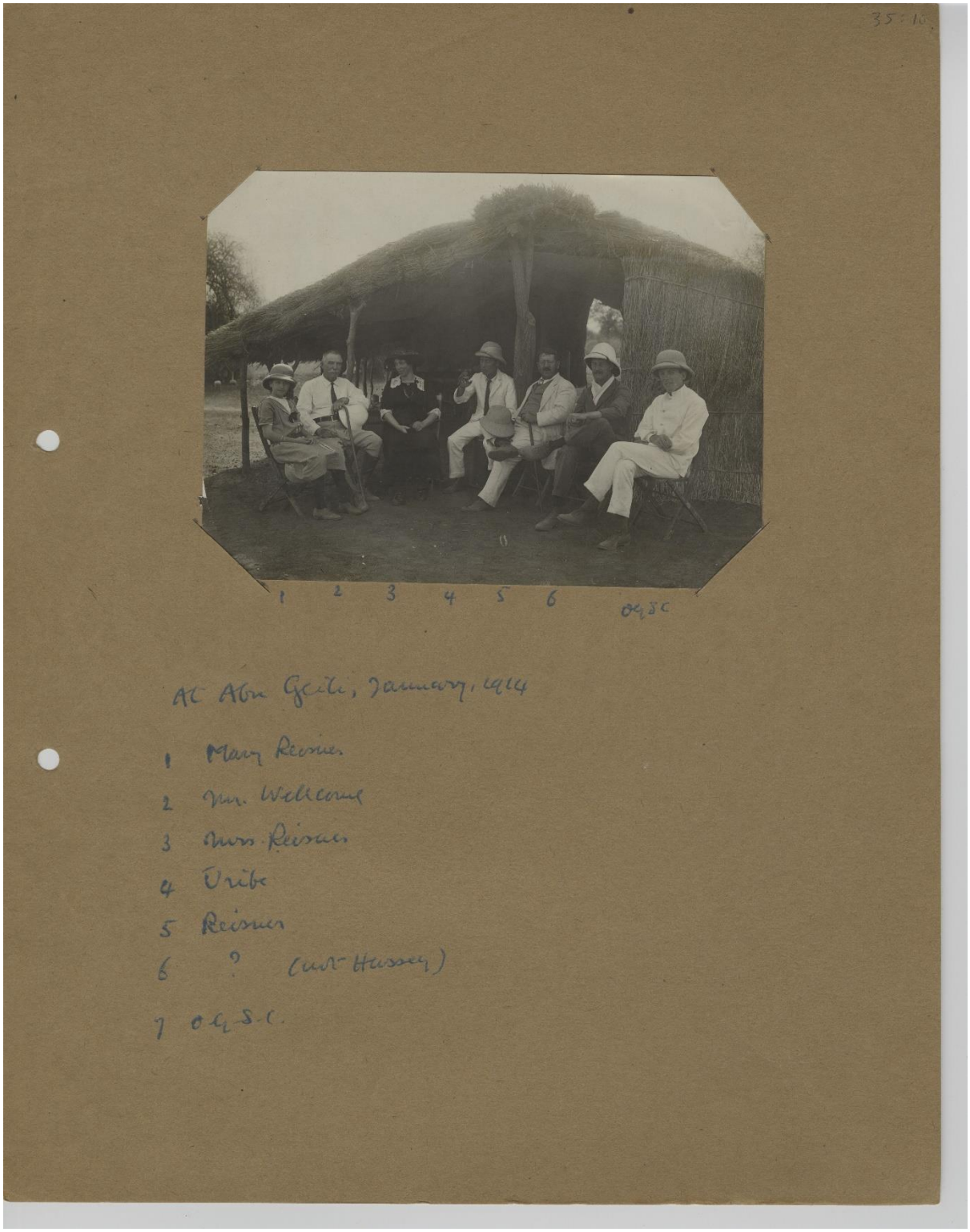


Figure 3.7 'Pomp and ceremony' at Abu Geili. Print 35.10.

If Crawford used photography to articulate distance between himself and the local archaeologists around him, then the few photographs in his archive which depict European and American archaeologists at Abu Geili and Jebel Moya attempt the exact opposite. Print 35.10 shows Crawford sitting with Wellcome, Uribe, the Reisner's and an un-named government official (Figure 3.7). The photograph was taken to mark a visit paid by Reisner and his family; an occasion Crawford described as "akin to a state visit" and thus the cause of much "pomp and ceremony" (1955:103).[297] This pomp and ceremony manifests visually; unlike the spontaneous snapshots which Crawford took of archaeological labour at Sutton Hoo, the photograph is a formal one, with the subjects arranged in a semi-circle and semi-posed. Formality manifests materially too; Crawford numbers each person depicted and then lists their names, a technique he elsewhere employed in labelling the group portraits he took as an official photographer in the First World War (Figure 4.6).[298] There is a marked contrast between Crawford's careful inscription of this print, his indifference to recording the name of the Sudanese foreman in the incident noted above, and the jocular familiarity with which he labelled his colleagues at Sutton Hoo (e.g., Figure 2.23). Each annotative form speaks to a very different social relationship between Crawford and the persons depicted in each photograph.

Crawford's attempt to articulate a formal relationship to the other archaeologists in Print 35.10 is also symbolised by his adoption of a pith helmet. The pith helmet has come to stand visually as a symbol of colonial domination, but as an item of clothing it holds distinct archaeological resonances too.[299] Wheeler wrote that the pith helmets—or "sun-helmets" as he called them—served to visually distinguish site supervisors making them both easy to identify and clearly distinct from 'labourers' (1954:80). The pale linens and beiges worn by the men in Print 35.10 also speak to this division of archaeological labour; crisp white suits are not at all suited to digging in the dirt. Crawford himself (at the far right of the image) is almost unrecognisable; there is not a single hint that this smartly dressed and clean-shaven young professional is the same 'unmentionable apostate' who just a few years later would scandalise the Cambrian Archaeological Association by choosing to greet them in shorts (Figure *1.10*). Clothes, Crawford wrote are an "extension" of the personality and one of the factors by which "we form our opinion of a man" (1921:18). In adopting the garb of the men around him Crawford positioned himself within an existing hierarchy of archaeologists, marked as one of the group by the combination of his dress and the company which he kept. Though his position on the extreme right of the group, echoing Mary Reisner's position on the extreme left, hints his junior role

[297] The photographer was presumably Barrett.
[298] See Chapter Four.
[299] See Chadha 2002 and Baird 2017 on archaeology's visual appeals to military order as part of the performance of 'scientific' discipline. Given these associations there is something deeply chilling in the casualness with which young Mary Reisner dons Wellcome's helmet.

in such a gathering. The positioning of the print in the archive in the present day also serves to enhance this impression of collective belonging. Box 35 is labelled "OGSC, members of his family & other associates and colleagues" and is one of three boxes devoted to photographs of Crawford, his family and peers.[300] The placement of print 35.10 alongside photographs of Crawford's beloved aunts and close friends articulates a far more intimate connection between Crawford and those posed around him. Crawford sits among those whose footsteps in the sand left a trail he wished to follow.

By 30th April 1914 the excavations at Abu Geili were all but wrapped up. Crawford returned home, initially hopeful that he would return the following season. But the outbreak of the First World War changed those plans; he would not see Sudan again for almost 40 years. Crawford clung to the idea of Sudan throughout the First World War; he maintained a constant stream of correspondence ostensibly aimed at Wellcome, but more often than not dealt with by Wellcome's aides. It was these assistants who, when Crawford was a prisoner of war at Holzminden, supplied him with books like Joseph Ohrwalder's *Ten Years' Captivity in the Mahdi's Camp* (1892) and E.A. Budge's *The Egyptian Sudan* (1907) (Letter from Crawford to Smith. 18 September 1918. WA/HMM/CO/Ear/311. Wellcome Collection). In Crawford's written papers from this time are draft letters full of furious scribbled amendments, a testament to Crawford's nervous energy:

"Are there any other travellers or historian ~~whose works~~ [sic] who describe the Sennar region and who should be examined or perhaps extracted and translated? Unfortunately, I cannot read Arabic myself… I am anxious to get as much hack-work as possible done this winter and next year that…the problems may be simplified for myself or my successor. Also, I may by going to the front any day. I hope you will ~~forgive~~ [sic] not mind me troubling you…I am anxious to get the research work upon a [illegible] basis, whatever may happen" (MS Crawford 95.70). [302]

I wonder how much of Crawford's attempts to establish his own legacy through the management of his archive stems from the experience of living through two World Wars and their brutal demonstrations of the fragility and impermanence of the human body. In such circumstances the impulse to leave some kind of trace of oneself behind must have been overwhelming. I explore Crawford's experiences of war in the following chapter, rather in the remainder of this chapter I consider the ways in which Crawford continued to establish connections between himself and his archaeological predecessors, and how he used his photographic and archival practices to symbolically and temporally navigate two return journeys to Sudan; the first at the behest of the

[300] See also Boxes 39 and 41.
[302] Crawford begins the letter with the phrase "last year when I was digging" leading to a likely date of this letter between 1914 and 1915.

Commissioner for Archaeology Peter Shinnie between January and April 1950, and the second an expedition funded by the British Academy between December 1951 and March 1952.

3.3 'Beginning Again': 1950[303]

Archives, by their very nature invite acts of return. From the deposition of artefacts, photographic prints or letters, the ordering and boxing of material, to the creation of finding aids and catalogues each act holds within it the conviction that someone in the future will seek out the traces of the past. But so too—argue Baird and McFadyen (2014)—do archives hold the promise of 'future trajectories' (cf. Derrida 1996). In the following sections I consider how Crawford's encounter with a series of archival collections in the years between 1913 and 1950 not only played an active role in the formation process of Crawford's archival assemblage, but also shaped the future trajectory of Crawford's life.

While the outbreak of the First World War disrupted Crawford's plans to return to Sudan, he "never quite lost touch" in the intervening years; continuing to monitor publications like the journal *Sudan Notes and Records,* and keeping up a steady stream of news snippets and editorial notes on the region in *Antiquity* (Crawford 1955:278).[304] There are also scattered traces throughout his archives that suggest that Sudan maintained a presence much closer to home in the form of his avid collection of decorative trays, baskets, cigarette holders, shoes, carpets and even rock samples from the region.[305] As noted in Chapter One domestic acts of accumulation leave only the faintest of traces in Crawford's archives yet provide important context for recognising the blurred lines between Crawford's professional practice and personal life; here these wider collecting and publishing practices reflect a sustained interest in Sudan that spanned Crawford's lifetime. In the years between 1914 and Crawford's return to a more sustained programme of research in the 1940s Sudan was—if not upmost in his mind—at least a constant background presence.

By the 1940s Crawford was no longer a young aspiring archaeologist, but had settled into an established role as an "Uncle to British Archaeology" (Stout 2008:21).[306] The bombing of the

[303] The chapter in Crawford's autobiography that covers this time in his life is also titled "Beginning Again".
[304] A review of *Antiquity* between 1927-1949 reveals 37 editorial notes, articles and news snippets covering Sudan during this period. Material on subjects outside of British Prehistory was not always popular with *Antiquity*'s subscribers. In a letter to Mortimer Wheeler Crawford bemoaned the fact that he had received several letters complaining that there was "not enough about British Archaeology in *Antiquity*" (Letter from Crawford to Wheeler. 30 December 1950. British Academy Archives MWA/6/1).
[305] E.g., MS Crawford 90.14; MS Crawford 95.52; MS Crawford 129.9; Crawford 1958:170. In his auto-biography Crawford argued "The slippers of North Africa and the Sudan are the best in the world" (1955:255).
[306] See MS Crawford 74.209: a copy of the 1953 Oxford Diploma and Certificate in Anthropology exam. One question reads "Analyse briefly the contribution to archaeology of one of the following: General Pitt Rivers; O.G.S. Crawford; the Abbe Breuil". In his excitement at his name appearing in association with the two older archaeologists Crawford has added several exclamation marks by his name.

Ordnance Survey offices in 1940 obliterated much of Crawford's work from the previous two decades, and in his demoralised state Crawford retreated to the subjects that held his interest as a young man. Significantly, 1946 marked the year of his retirement and with it the free time necessary for "the writing of books" (Crawford 1955:277).[307] The Wellcome Trust had approached an associate of Crawford's—Frank Addison—to ask if he would be prepared to write up the results of Wellcome's excavations at Jebel Moya and Abu Geili.[308] Addison turned to Crawford for assistance and in 1943 they began to work through the archives and artefacts from the excavations that had been bought back from Sudan before the First World War, finally publishing *Abu Geili, Saqadi & Dar el Mek* in 1951 (Crawford and Addison 1951:vi).[309] Drafts of this publication can be found in MS Crawford 95 written on paper impressed with a letterhead reading "House of Boulders, Jebel Moya" (Figure 3.8). Similarly, several sheets of Crawford's negative register are held together by the remains of a dark blue cloth book cover bearing a sticker with faded ink reading "Prize Book. Gebel Moya 1913". It seems that Crawford retained mementoes of his time in Sudan and then symbolically re-incorporated these objects into his later work, making materially manifest the symbolic trajectory between his hopes for the future as a young man and his newfound freedom as a retiree. Crawford was not blind to the significance of the timing; very explicitly framing his scholarship on Sudan in the years during and immediately following the Second World War as "a return to the work interrupted by war in 1914" (Crawford 1955:278).[310]

[307] Crawford's other key photographic project during this time was the photography of Southampton which—as I argue in Chapter Four—also represents a return to the interests of his youth.
[308] See Crawford and Addison (1951) for an account of the research for the project and Arkell (1959) for an account of Crawford's return to active scholarship on Sudan.
[309] Their ability to complete this project was of course made possible by the systematic extraction of artefacts from their countries of origin (cf. Stevenson 2019). Addison later arranged for the transfer of the paper archives to the Griffith Institute in Oxford, and for the partage of the finds between museums (Francisco Bosch-Puche, Pers.Comm)
[310] Crawford was delighted to find that his memory of those past years was "still quite vivid" (Crawford 1955:279).

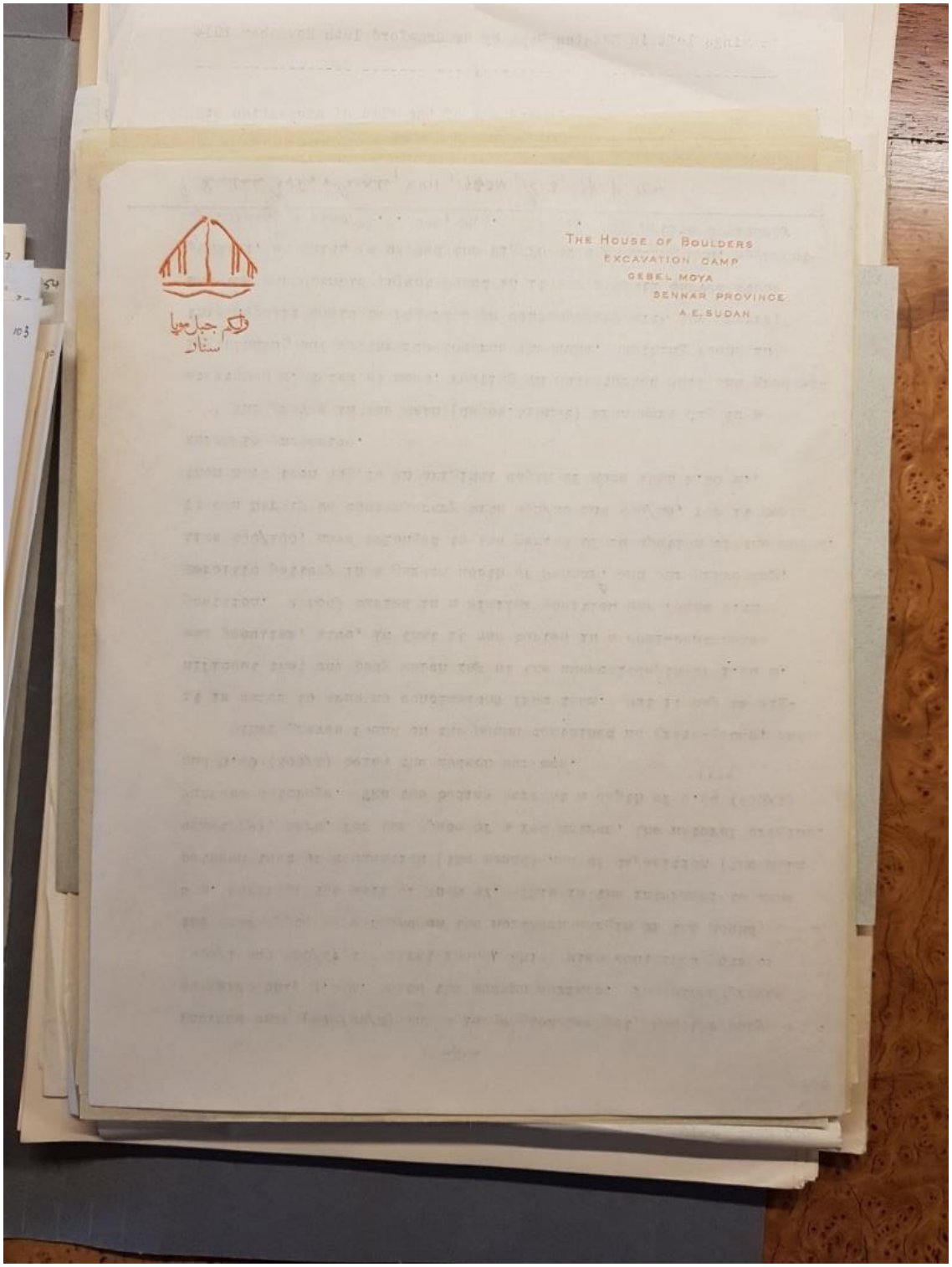


Figure 3.8 Reincorporating material in the archive. MS Crawford 95.100

As Crawford and Addison reviewed the material from Abu Geili, a note published in *Sudan Notes and Records* (Corkill 1945) sent Crawford scrambling to revisit the tales of 'exploration' and colonial conquest that he read as a schoolboy and as a prisoner of war—eventually leading him down a rabbit hole of research that would manifest in a second publication; *The Fung Kingdom of Sennar* (1951a) (Crawford 1955:278).[311] Crawford was heavily dependent on these travellers' tales; in part because of his distaste for the 'Egyptocentrism' that pervaded much inter-war archaeological scholarship on Sudan (cf. D.N. Edwards 2004).[312] But so too did these tales have an emotional hold over Crawford; blended into his research was a series of nostalgic references to his experiences as a young man, which became indelibly enmeshed with these earlier accounts; "Sitting…with a map before me, reading all that had been written by travellers and residents, recalling memories of 1913-14" (Crawford 1955:280). Then in 1949 Crawford received an invitation he couldn't refuse: Peter Shinnie—acting in his official capacity as Commissioner for Archaeology in the Anglo-Egyptian Sudan—offered to cover the cost of travel to Sudan (Crawford 1955:279). And so, in January 1950—after almost 40 years—Crawford sunk into an armchair in Khartoum feeling utterly content;

> I would sit on the veranda in the finest armchair I have ever subsided into, listening to the birds, looking at the flowers, and laughing at the misprints in the local newspaper. Being here at all was the realization of a dream, for I had been living here in imagination for years past (1955:280).

In the following sections I explore how Crawford's affective archival research process in the 1940s translated into his subsequent photographic practice in Sudan in 1950.

---

[311] Stylistically the publication marked a step away from Crawford's usual journalist style and a return to the drier academic tone he adopted in early publications (e.g., Crawford 1922) which is discussed in Chapter Four. Crawford specified that his intended audience was "those who know the Sudan, to whom its people and places are familiar" (1951a: xix). Around this time Crawford also began to self-style himself "Editor of Antiquity *and author of numerous works on the archaeology of Europe and Africa*".

[312] An analysis of the bibliography of *The Fung Kingdom* demonstrates that Crawford cited only 37 articles and books on Sudan published after 1900. In the nineteenth and twentieth centuries cultural diffusionists argued that 'civilisation' spread from Egypt to Greece and Rome and into Europe, manifesting finally in the modern-day European culture. This possessiveness over Egypt as a precursor to modern 'civilisation', coupled with an interest in Egypt as one of the lands of the Bible, and the highly publicised excavations of the 1920s fermented a longstanding European obsession (Trigger 1994; Riggs 2019). When Egyptian regulations regarding the export of antiquities tightened after the First World War, Sudan became a popular alternative destination with archaeologists treating Sudan as a proxy for Egypt (D.N. Edwards 2004:7; Goode 2007:1; Stevenson 2019:199). Crawford was openly mocking of the deficiencies he saw in such approaches, such as a "professor of Egyptology" who published a report of an excavation in Nubia without being able to accurately locate the site on a map (1953:40). Crawford's interest in Sudan for its own sake—and in particular the much later Funj period—made him something of an archaeological oddity. In a letter to Wheeler Crawford bemoaned the scarcity of potential reviewers for the book on Abu Geili; writing of one potential candidate "He doesn't know anything…but who does?" (Letter from Crawford to Wheeler. 6 May 1954. MWA/6/1. British Academy Archives).

3.3.1 'Rubbernecking Round Ruins'

The 332 photographs which Crawford took between his arrival in Khartoum in January 1950 and his departure in March that same year can be found in Boxes 27 and 37 of the photographic archive, while a series of prints relating to *The Fung Kingdom* can be found in Box 14. Though Crawford's expressed aim for his return to Sudan in 1950 was to visit and photograph sites of relevance to *The Fung Kingdom,* a closer assessment of his photographic activity reveals an ulterior motive: Crawford seems to have made pilgrimage-like visits to sites (and sights) connected with figures from the more recent history of the Anglo-Egyptian Sudan. In photographing these sites, Crawford went beyond documenting features of archaeological interest, but instead used photography to explore his own proximity to key events and figures in the history of Sudan.

Print 27.2 (Figure 3.9), taken on the 27th January 1950, is in many ways reminiscent of Crawford's photographs of Sutton Hoo. Like the photographs of the 1939 excavation, when examined in isolation the print appears a simple record shot of an architectural detail. But by turning again to Antonia Thomas' (2019) work on duration and attending to the temporal resonances in the print and the context of its production, multiple interwoven events from throughout the history of Sudan emerge. The large bricks which caught Crawford's attention are recorded as 'allegedly' from Soba. Soba was the capital of the Kingdom of Alodia, located 14 miles south-east of Khartoum, which had fallen into decline as the Funj Sultanate rose to ascension, and by the 1950s few archaeological traces of it remained (Crawford 1951a:25-28; D.N. Edwards 2004:253). The dimensions of the bricks, jotted by Crawford on the mount, mark them as most likely produced in the pre-Islamic period (Shinnie and Din Mohammed 1955:118; D.N. Edwards 2004:221). Once again Crawford's feet nudge their way into the frame, disrupting the tendency to look through the photograph to a medieval past, interjecting a clear reminder of Crawford's presence as photographer. In 1950, Soba was not just a site of archaeological interest to Crawford but was made personal through his connection to Margaret and Peter Shinnie who acted as his hosts.[314] Crawford was taken on several tours of work undertaken by Shinnie's department, including a trip to the excavations which Shinnie was overseeing at Soba on March 1st 1950.[315]

But Crawford's annotation "in the Khalifa's house" introduces another distinct temporal reference.

[314] Margaret Shinnie was a prodigious scholar and archaeologist of Sudan, who published among other works *A Short History of the Sudan* (1954) and a transcription of Linant de Bellefond's *Journal d'un Voyage à Méroé…* (1958). Peter Shinnie was a fellow Scotsman, a H.G. Wells fan and a member of the Chelsea branch of the communist party (David 2008:125-126). It's clear from Crawford's diary that both Margaret and Peter Shinnie were instrumental in facilitating Crawford's excursions in 1950.

[315] See Prints 27.120 and 27.121. See also Shinnie (1955) and D.N. Edwards (2004) for an account of the Soba excavations.

In the years following Kitchener's massacre Omdurman became a European tourist destination. The infrastructure that accompanied colonial military expansion encouraged and enabled tourism to flourish; the thousands of miles of railway laid for Kitchener's invasion in 1898 could also ferry tourists to and from Khartoum, or transport photographic film back to development labs in Britain (P. Fox 2018; cf. Riggs 2019). Colonial violence itself became a subject of touristic and photographic interest.[316] Guidebooks to Sudan produced after the establishment of the Condominium Agreement took on a distinct flavour of dark tourism, blending sightseeing with accounts of death and destruction under the Mahdist rule (Figure 3.9).[317] *Cook's Handbook for Egypt and Sudan* gives an extended and gruesome account of Gordon's death in Khartoum, before pointing out buildings from the Mahdist period which may be of interest to the visitor (Budge 1905:706-707). Chillingly, the book notes that visitors to Kerreri—seven miles to the north—might be able to collect "weapons and small objects" belonging to those who died in the battle for Omdurman (Budge 1905:711). The history of the Khalifa's house reflects this growing tourism industry; having been converted into a museum of Mahdism (MS Crawford 129.6). Visitors could gaze upon a bath and carriage reputed to have been used by the Khalifa, and see the first motor car used by Sir Reginald Wingate (MS Crawford 129.7). The Khalifa's bath was an especially significant display of plunder, as it was rumoured that the Khalifa had taken its brass taps from Gordon's bathroom following his death in Khartoum (Budge 1905:708).[318]

[316] See Gordon (2019) and P. Fox (2018) on the use of photography during the massacre at Omdurman. See Tuttle (2019) for a discussion of how British administrators used tourism as a method of intimidating Sudanese leaders.

[317] Crawford certainly owned at least one Baedecker guide (Crawford 1955:47).

[318] A note published in *Sudan Notes and Records* in 1925 lists a number of other 'relics' that could be found on display in the museum (G—W—G 1925).

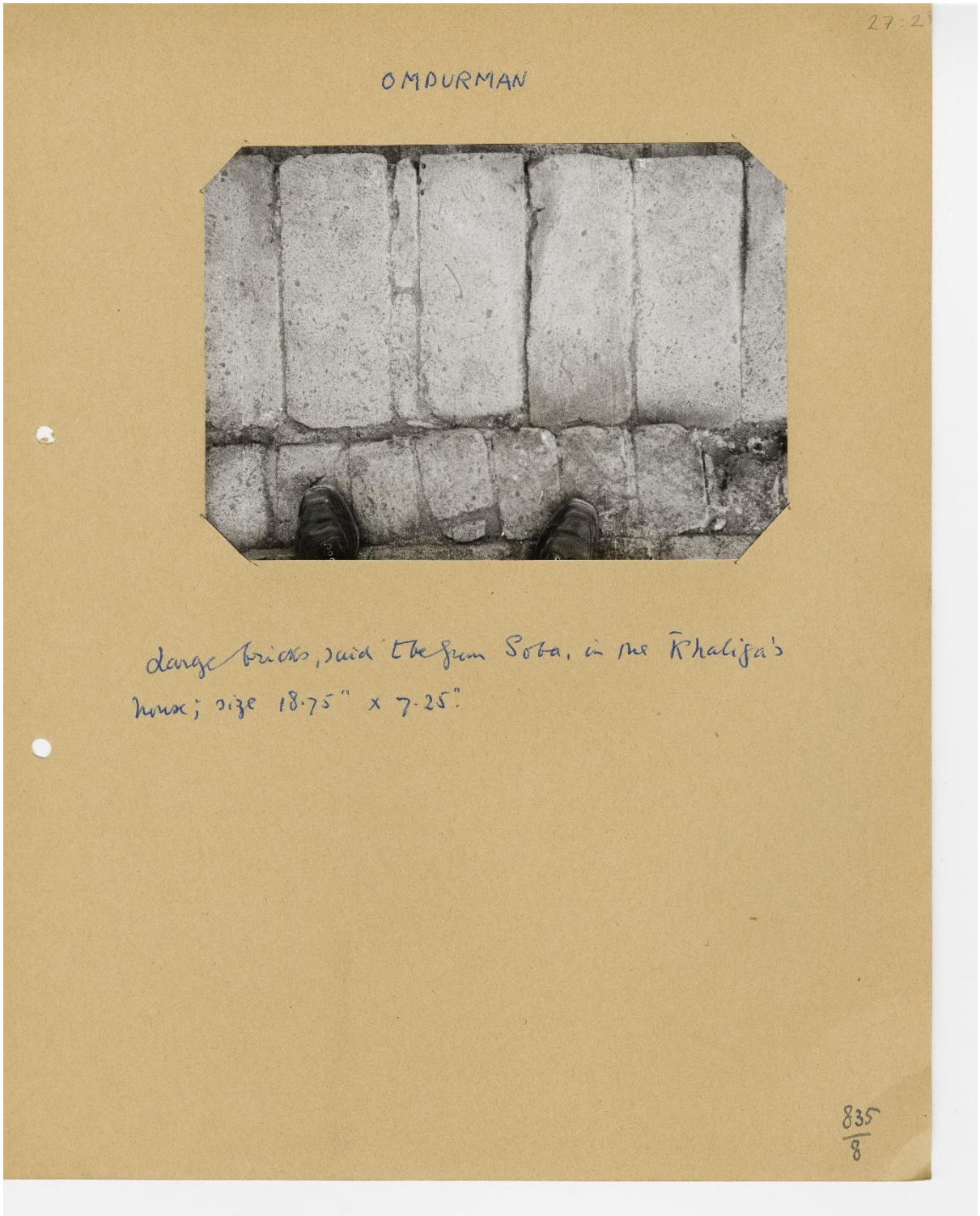
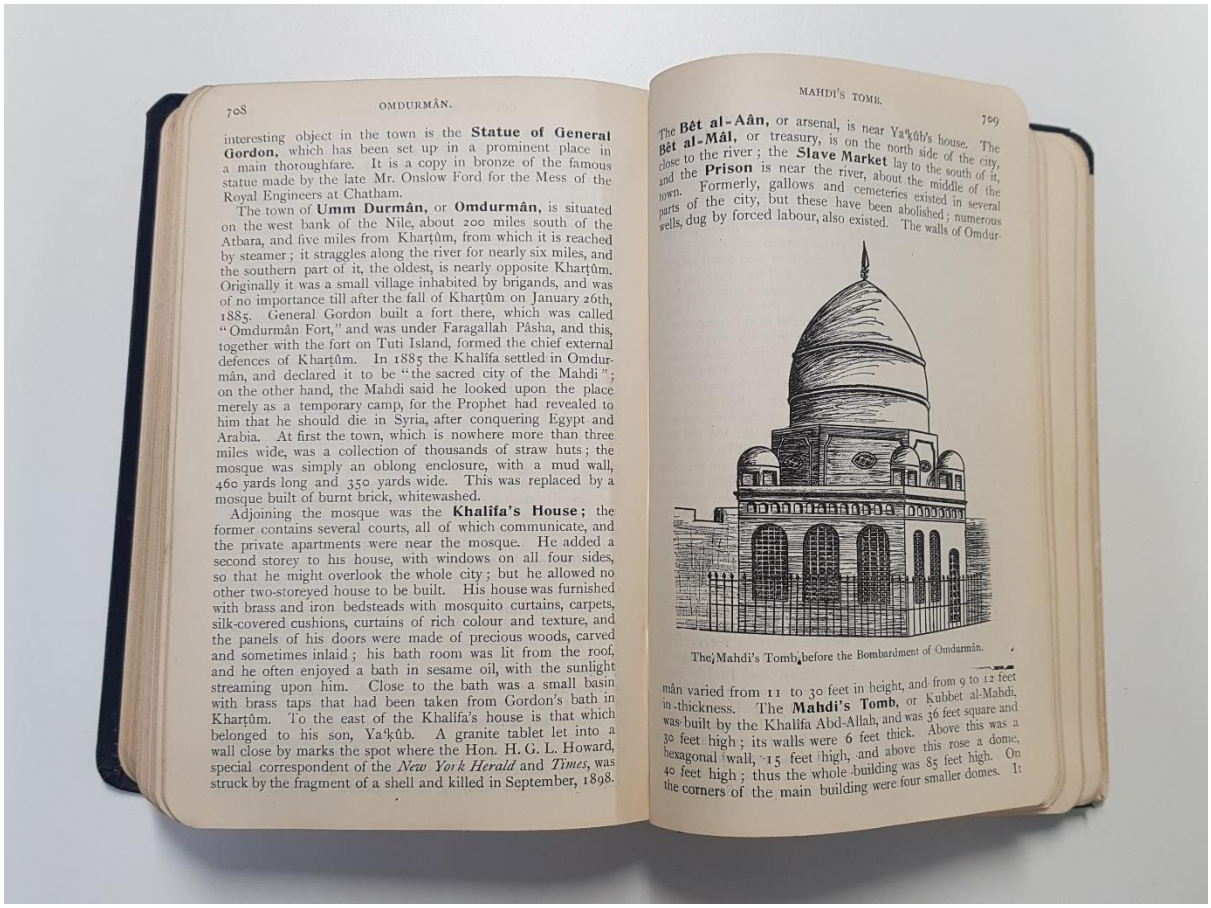


Figure 3.9 The Khalifa's House. Print 27.2.



708 OMDURMÂN.

interesting object in the town is the **Statue of General Gordon,** which has been set up in a prominent place in a main thoroughfare. It is a copy in bronze of the famous statue made by the late Mr. Onslow Ford for the Mess of the Royal Engineers at Chatham.

The town of **Umm Durmân,** or **Omdurmân**, is situated on the west bank of the Nile, about 200 miles south of the Atbara, and five miles from Khartûm, from which it is reached by steamer; it straggles along the river for nearly six miles, and the southern part of it, the oldest, is nearly opposite Khartûm. Originally it was a small village inhabited by brigands, and was of no importance till after the fall of Khartûm on January 26th, 1885. General Gordon built a fort there, which was called "Omdurmân Fort," and was under Faragallah Pâsha, and this, together with the fort on Tuti Island, formed the chief external defences of Khartûm. In 1885 the Khalîfa settled in Omdurmân, and declared it to be "the sacred city of the Mahdi"; on the other hand, the Mahdi said he looked upon the place merely as a temporary camp, for the Prophet had revealed to him that he should die in Syria, after conquering Egypt and Arabia. At first the town, which is nowhere more than three miles wide, was a collection of thousands of straw huts; the mosque was simply an oblong enclosure, with a mud wall, 460 yards long and 350 yards wide. This was replaced by a mosque built of burnt brick, whitewashed.

Adjoining the mosque was the **Khalîfa's House;** the former contains several courts, all of which communicate, and the private apartments were near the mosque. He added a second storey to his house, with windows on all four sides, so that he might overlook the whole city; but he allowed no other two-storeyed house to be built. His house was furnished with brass and iron bedsteads with mosquito curtains, carpets, silk-covered cushions, curtains of rich colour and texture, and the panels of his doors were made of precious woods, carved and sometimes inlaid; his bath room was lit from the roof, and he often enjoyed a bath in sesame oil, with the sunlight streaming upon him. Close to the bath was a small basin with brass taps that had been taken from Gordon's bath in Khartûm. To the east of the Khalîfa's house is that which belonged to his son, Ya'kûb. A granite tablet let into a wall close by marks the spot where the Hon. H. G. L. Howard, special correspondent of the *New York Herald* and *Times*, was struck by the fragment of a shell and killed in September, 1898.

MAHDI'S TOMB. 709

The **Bêt al-Aân,** or arsenal, is near Ya'kûb's house. The **Bêt al-Mâl,** or treasury, is on the north side of the city, close to the river; the **Slave Market** lay to the south of it, and the **Prison** is near the river, about the middle of the town. Formerly, gallows and cemeteries existed in several parts of the city, but these have been abolished; numerous wells, dug by forced labour, also existed. The walls of Omdurmân varied from 11 to 30 feet in height, and from 9 to 12 feet in thickness. The **Mahdi's Tomb,** or Kubbet al-Mahdi, was built by the Khalîfa Abd-Allah, and was 36 feet square and 30 feet high; its walls were 6 feet thick. Above this was a hexagonal wall, 15 feet high, and above this rose a dome, 40 feet high; thus the whole building was 85 feet high. On the corners of the main building were four smaller domes. It

The Mahdi's Tomb, before the Bombardment of Omdurmân.

Figure 3.10 The Mahdi's Tomb and Khalifa's House. (Budge 1905).

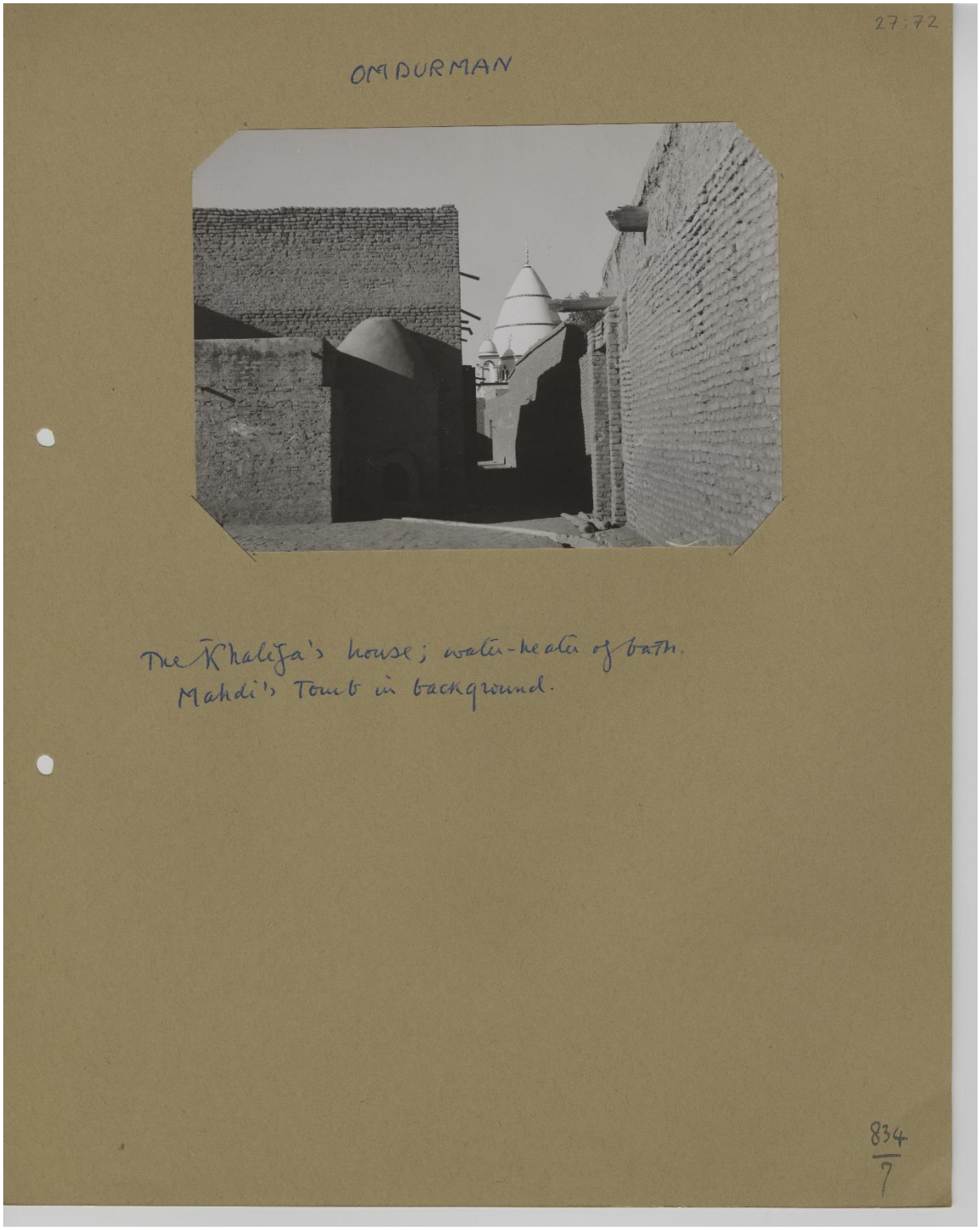


Figure 3.11 The Mahdi's Tomb and the Khalifa's House. Print 27.72.

Though Crawford protested that he had nothing but distaste for "rubbernecking round ruins" (MS Crawford 129.2), both his negative register and his diary reveal that he actively adopted tourist itineraries on multiple occasions in 1950.[322] During his flight to Sudan he stopped en-route to join a guided tour around Karnak, taking 35 photographs as he did so.[323] On the 30th January, Crawford recorded with some delight a trip to the Khartoum zoo, carefully noting the names of two white rhinos—Paul and Chloe—in his negative register.[324] And he undertook a personal pilgrimage, visiting the Flinders Petrie Library to view books owned by Petrie and donated by Petrie's wife after his death in 1942 (MS Crawford 129.5). Several of the destinations visited by Crawford followed a distinct theme; sites related to the Mahdist regime. On 24th January 1950—three days before taking the photograph that was to become Print 27.2— Crawford was taken to Omdurman by Peter Shinnie. Omdurman was nothing like Crawford's imagined vision of the city, instead of the narrow crowded streets and simple *tukuls* described in tourist guidebooks and historical accounts were flat roofed houses built along wide throughfares (MS Crawford 129.6).[326] Crawford viewed the remains of the gun emplacements constructed during the Mahdist uprising, and Shinnie took great pains to show off the work his department had done in repairing the old gate which demarcated the bounds of the Khalifa's city (MS Crawford 129.6).[327] Crawford photographed a carved stone ram taken from Soba and installed in the grounds of an Anglican church, before taking two shots in quick succession of the Mahdi's tomb (Figure 3.11). That day Crawford made his first visit to the Khalifa's House writing in his diary, "I found it absorbingly interesting and intend to go again" (MS Crawford 129.7).

One of the sights that most compelled Crawford was a "dramatic" photograph on display, showing chains being removed from the legs of a captive of the Khalifa, Charles Neufeld (MS Crawford 129.7). For Crawford, the photograph instantly catapulted him back to memories of meeting Neufeld at Abu Geili in 1913:

[322] A claim repeated Crawford (1952b).
[323] Though Crawford records taking these photographs in his diary, they are not recorded in his negative register. It is possible that at least some of these photographs were on roll 833, which is recorded in the register as having been spoilt. However, Crawford's claim to have taken over thirty photographs does not match with the number of exposures per single roll of film (12), so it seems that more than one film is unaccounted for in the negative register.
[324] Crawford later added a note recording that the animals were transferred to Hamburg Zoo in April 1950. See Tuttle (2019) for a sample tourist itinerary in Khartoum in the early twentieth century.
[326] The *Cook* handbook described Omdurman as historically being "a small village inhabited by brigands…a collection of thousands of straw huts" (1905:708; cf. Slatin 1898:251).
[327] This is not the only example of Crawford going out of his way to visit Mahdist sites, on his return to Sudan the following year, he also made a special detour to inspect the ruined fortifications near Umm Hashib, established by Osman Digma, one of the Mahdi's most powerful supporters (MS Crawford 130.14).

I remember that he was dressed rather queerly in clothes of a rather mixed character, with putees on his legs. I asked him if it were really a fact that he was chained by the legs and he assured me that it was…he still had marks on them but he did not show me them. (MS Crawford 129.7).

In encountering this image of Neufeld, Crawford's personal recollections seemed to have been drawn into a dialogue with the broader sweep of history on display at the museum. Nor was this an isolated experience. In his study of tourism in Sudan following the condominium agreement, Tuttle notes that "A conventional episode which appears in almost every Khartoum travel narrative…is an encounter with a former Mahdist soldier" (2019:10). In 1950 Crawford clearly sought out such an encounter. On 11th February 1950, Crawford excitedly noted in his diary that he had met some horsemen "dressed exactly like the Dervishes…the tribe to which the Khalifa belonged" (MS Crawford 129.27). Crawford seems to have come close to achieving his aim in the form of Print 27.35 (Figure 3.12) a portrait of a man named by Crawford as Muhammad Adriz. In the extensive annotation on the mount of the print, Crawford notes that Adriz served as a cook for Lieutenant General George Gorringe's battalion and was present for the military campaigns following the massacre at Omdurman. Like the experience of viewing the photograph of Neufeld, interactions with veterans like Adriz acted to impress upon Crawford his temporal proximity to the Khalifa's rule (cf. Tuttle 2019:11). The experience would surely have recalled the stories of 'exploration' and military expansion he heard as a schoolboy and consumed again, first as a prisoner of war, and then as part of his research for *The Fung Kingdom*. The pull of standing amid these stories drew Crawford back to Omdurman and the Khalifa's house on the 27th January. Crawford spent the morning in the market buying souvenirs; incense, tobacco, a basket, shoes and a cigarette lighter, and taking a further two photographs of the Mahdi's gun emplacements before returning to the Khalifa's house in the afternoon to buy "30 picture postcards" and photographing Wingate's car, the Khalifa's carriage and to take the photograph that became Print 27.2 (MS Crawford 129.9). The significance of this sequence of interlinked activities must not go unremarked.

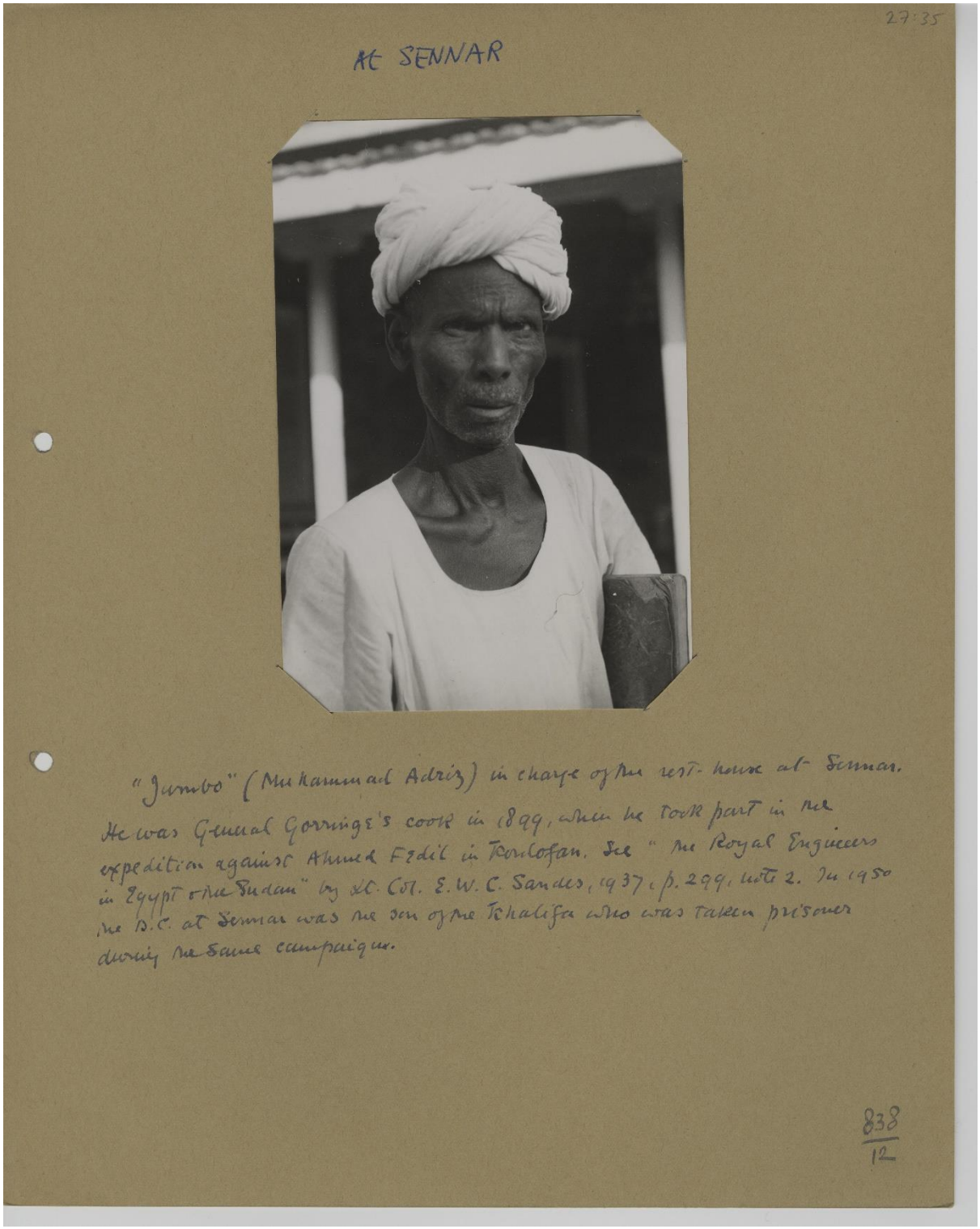


Figure 3.12 Muhammad Adriz. Print 27.35.

In the Pitt Rivers Museum in Oxford are two Zuni pots. The museum accession book records:

> Found in Acland House…when taken over by the School of Geography in 1910. Mr Crawford was then with them. He believes (most probably correctly) that they had originally been obtained by, or on behalf of, E.B. Tylor (Pitt Rivers Museum database entry 1952.12.8 & 9).

Acland house, Crawford recalled was "a sort of treasure trove", it "contained several relics of Tylor which…I kept for myself. Had I not done so they probably would have been lost or thrown away, for no one realised their historic interest" (1955:66).[329] Throughout his life Crawford collected 'relics' of famous men; Print 19.5 bears two photographs of the signatures of Karl Marx and Vladimir Lenin (Figure 3.13) reproduced from the visitor book of the British Museum (cf. Hauser 2008:156). This theme continues in the form of Print 14.120; four photographs of carved stone crosses annotated by Crawford "Photos by Flinders Petrie who gave them to me" and Print 46.128 labelled "Various Welsh Megaliths: PH: W.M. Flinders Petrie (his handwriting)" (Figure 3.14). Crawford's annotations on the prints make it plain that his interest lies not in looking *through* the photographs to use them as pieces of archaeological evidence, but rather in drawing meaning out of the prints as physical objects bearing an indexical relationship to Petrie through the double trace of photograph and handwriting, and the significance of fact that the prints were a personal gift.[330] In each of these 'relics' Crawford saw the tangible material traces of those he regarded as seminal intellectual influences; the imprint of pen on paper, or a pot abandoned by its previous owner, being not too dissimilar from the traces left by past people in the archaeological record.[331] It is in this context that the significance of Crawford's photographic process in Omdurman begins to take shape. Approaching Print 27.2 (Figure 3.9) from a durational perspective, contextualising it within the series of events that surrounded its making—Crawford's adoption of sightseeing tours around Mahdist sites with Shinnie and his purchase of souvenirs and postcards—reveals that here too Crawford was

[329] Crawford donated these pots to the Pitt Rivers Museum in 1952, around the same date at which he began to consolidate his archive. Tylor's sway over Crawford is evident throughout the pages of *Archaeology in the Field* in which Crawford introduces Tylor as "the founder of anthropology" and argues that "archaeology is merely the past tense of anthropology" (1953:15). Stout refers to Tylor as "one of archaeology's mythic ancestors" (2008:19).

[330] Though Petrie rose to fame for his work as an Egyptologist, Crawford was keenly aware of Petrie's background as a field archaeologist, arguing that Petrie "qualified…planning earthworks in Kent…He himself told me that he owed much to the early influence of F.J.C. Spurrell, one of the best Kentish Field Archaeologists of the nineteenth century" (1953:88; cf. Knowlden 2017). This background is notably similar to Crawford's own, which I discuss in the next chapter. Similarly in his article on "Historical Cycles" Crawford was keen to stress his personal—as well as intellectual—connections with Petrie (Crawford 1931:6; cf. Crawford 1955:93).

[331] The suggestion that Crawford enacted an "archaeology of modern life" has been raised by Hauser (2008).

actively collecting examples of ‘relics’ that spoke to his own personal proximity to the recent political history of Sudan.

But recognising the personal significance of Crawford’s photographic and collecting practices must be balanced with the consideration of the broader political and ethical implications of his presence in the Khalifa’s house in 1950. The photographic historian Steve Edwards (2019) speaks of “poignant spaces”; sites which appear “banal, incidental or ordinary” but which mark the scene of past atrocities. A similar dynamic occurs in many of Crawford’s photographs of Sudan; the mundanity of photographic images like Print 27.2 acting to preclude them from any discussion of their relation to the politics of colonial violence. And yet voyeuristically photographing the belongings of a dead man which are displayed as the trophies of punitive violence is an act that exists on the same spectrum of violence as the original collection of such items. In Crawford’s archive, violence does not manifest in the form of graphic depictions of the outcomes of punitive expeditions like those discussed by Gordon (2019), nor does it take the form of what Fox terms the overt “narcissistic self-representation on the territory of the defeated” (2018:315). The violence in Crawford’s archive is much quieter—wrapped up in the trappings of archaeological enquiry—and is all the more insidious because it treads so lightly. A key challenge in working with this collection of photographs is in preparing strategies that recognise and confront these subtle expressions; as I have demonstrated above it is only in taking a durational perspective—temporally locating the print within the sequence of events surrounding its production and uniting this with a longer-term perspective of British military involvement in Sudan—that it has been possible to bring these undertones of colonial violence to the fore.

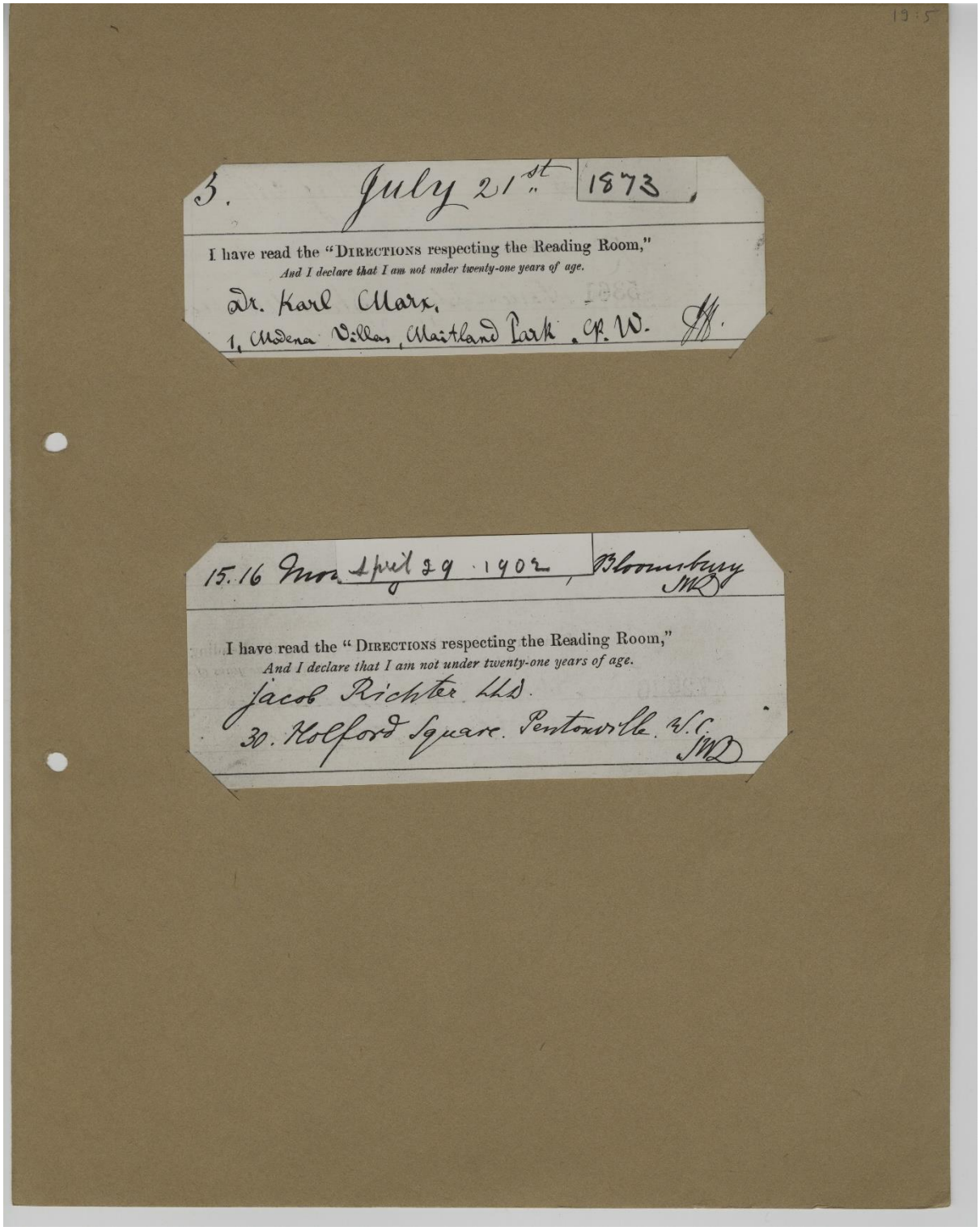


Figure 3.13 'Relics' of Marx & Lenin. Print 19.5.



Figure 3.14 Photographs by Flinders Petrie. Print 14.120.

3.3.2 Return to Abu Geili

At a little after 10:45am on the 6th February 1950 Crawford stood once more at the site of Abu Geili. Even after all those years, Crawford could still instantly identify the spot which had been his office—the notch he had carved on a Tebeldi tree thirty-six years ago was still visible (Crawford 1955:103).[332] Crawford was not the only one in the travelling party retracing his own past footsteps. On the 25th January 1950 while at the museum in Khartoum Crawford was approached by a man who "knew Uribe…worked under Addison…and others of the Gebel Moya [sic] circles—including as he alleges myself! Though I have no recollection of him" (MS Crawford 129.6). Crawford, did however take note of the man's name; "Abdelrahman Muhammed" [sic] (MS Crawford 129.6). Despite Crawford's confusion, a list of excavation personnel for A.J. Arkell's work at Shaheinab, references an employee of the Khartoum Museum of the name of Abdelrahman Mohammed (Arkell 1953:1). Someone of the same name is also elsewhere acknowledged as participating in an excavation with Addison (Addison 1953:1). If—as is very likely—these references do refer to the same man, despite Crawford's failure to recognise him Mohammed was an archaeologist of considerable experience.[333]

Despite the deep personal significance that Abu Geili held for Crawford, one gets the sense that the visit fell a little flat. The old excavation squares were faintly visible to the archaeologist's trained eye but the site was "covered again with a thick growth of jungle" (Crawford 1955:281). Crawford photographed Shinnie and Mohammed next to a vast ant-hill (Figure 3.15) wondering if it was "the successor of the ant-hill which we destroyed during the excavations" (MS Crawford 129.17). [334] "Almost everything at Sennar had changed out of recognition"—Crawford mused—and the local inhabitants had only "dim or vague" recollections of Wellcome's work (1955:280-281). It seemed that Wellcome's excavations—for all the deep personal significance they held for Crawford—had left only the most transient of traces on the Sudanese landscape. Tellingly—far from the frantic rush of photographs taken at Sutton Hoo in a frenzy of excitement—Crawford's negative register records that he took only three photographs and these over the course of about 40 minutes.[335] The party continued onwards towards Roseires, the only upside Crawford notes was the sighting of an ostrich and lunch taken in the hut of a man killed by a leopard. "This was as near as we got to exploring in the Victorian style" he wrote sadly (1955:281).

[332] Described as "our old tebeldi tree" in his negative register.
[333] Cf. Crawford 1953:226.
[334] In this photograph there is a faint echo of the colonial visual trope of representing the so-called 'uncivilised' nature of African countries by means of a "wall of impenetrable twisted vegetation" (Ryan 1997:38; cf. J. Hicks 2010; Baird 2017; Budge 1905:676).
[335] Between 10:45 am and 11:25am.

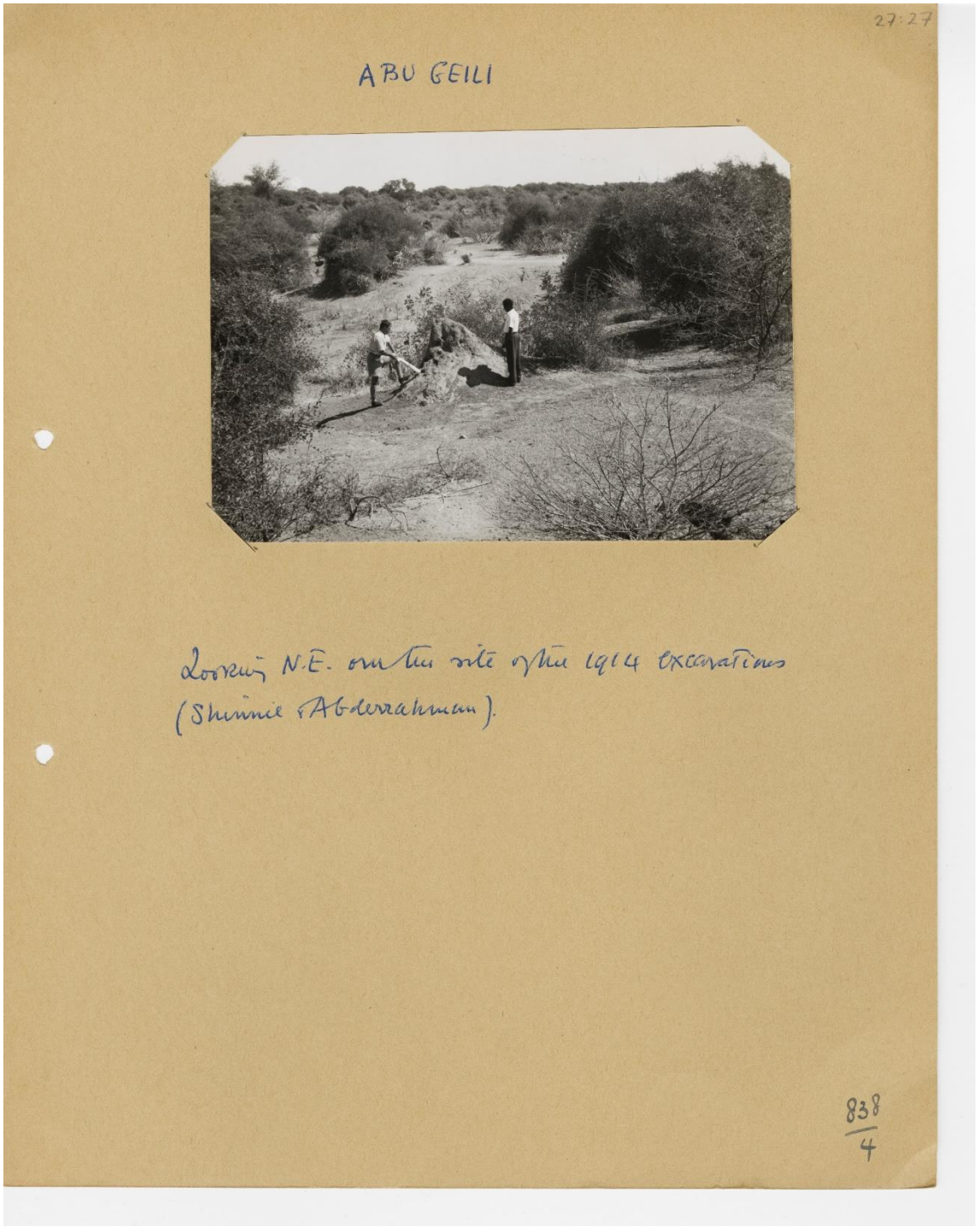


Figure 3.15 Return to Abu Geili. Print 27.27.

3.4 The British Academy Middle Nile Expedition 1951-1952

When Crawford returned from Sudan in the Spring of 1950, he almost immediately began planning his next return journey.[336] In 1950 Crawford had flown to Sudan as a passenger in a BOAC flying boat (MS Crawford 129.1-4). During the flight Crawford craned out to observe the landscape passing beneath him and his thoughts turned not to the venture ahead of him but to the past;

> Thought of Bruce & Slatin. It was curious to sit in comfort eating eggs & bacon above a route that was crossed with such labour & pains by the old travellers, in fact it was almost indecent! (MS Crawford 129.3).[337]

With these feelings of guilt upmost in his mind, in the early months of 1951 Crawford approached the British Academy with an ambitious proposal for a solo trek by camel along the Nile from Abu Hamad to Meroë and back again on the opposite bank. He framed the prospective journey as "a preliminary archaeological reconnaissance in an almost unexplored region" (MS Crawford 91.17; Crawford 1955:288).[338] It was—Crawford wrote— the "revival of a type of reconnaissance once fairly common" (1955:287). Journeys along the length of the Nile had been a key facet of European 'exploration' in Egypt and Sudan since the seventeenth century; often manifesting in the form of expeditions which competed to locate 'lost cities' along its banks.[339] During his research for *The Fung Kingdom* (1951a) Crawford had compiled detailed itineraries and maps of the routes taken along the river by travellers over the centuries.[340] Of particular relevance to Crawford's proposed venture were the efforts made by Linant de Bellefonds (1799-1883) and Frédéric Cailliaud (1787-1869) to reach the 'lost' city of Meroë.[341] The research process drew Crawford to archival collections held in the

---

[336] Crawford's laser focus on Sudan in this period is attested to by the fact that between his final day in Sudan on 1st April 1950 and his subsequent return in December 1951, Crawford's negative register records that he took only 22 photographs.

[337] James Bruce (1730-1794) was a Scotsman who laid claim to being the first European to visit the source of the Nile, while Rudolph Carl von Slatin (1857-1932) held the rank of Governor-General of Darfur until he was captured by the Mahdi's troops and held prisoner for eleven years before escaping by trekking 1000km across the desert to Aswan. He later published a memoir of the experience entitled *Fire and Sword in the Sudan* (1898).

[338] Crawford's application to the British Academy for £400 of funding went informally through the person of Mortimer Wheeler before reaching the official committee. Wheeler wrote to Crawford in January—four months before the application was to be formally reviewed—on British Academy headed paper to say that that he had "no doubt that it will be well received" (MS Crawford 90.1)

[339] Knowledge of the land gained from these ventures often translated directly into colonial military expansion; as was the case when Samuel Baker, the first European to follow the Nile to Lake Mwitanzige, was called upon to advise upon on potential routes to move troops to the aid of General Gordon in 1885 (Nicoll 2004:212; cf. Trout-Powell 2003:42).

[340] Traces of this work are littered across Crawford's archives, from scribbles on graph paper listing the distances covered by Nero's soldiers as they attempted to reach Meroë to gigantic plans of caravan routes across the Bayuda Desert.

[341] Linant de Bellefonds made two attempts at locating the city between 1818 and 1822. Crawford consulted his unpublished notes and sketches at the Griffith Institute in Oxford while preparing the text of *The Fung*

Griffith Institute in Oxford.[342] Though there are no records of Crawford's research visits, it is possible to identify at least some of the documents which Crawford consulted. Box 14 of the photographic archive holds pre-publication prints of the 38 illustrative plates which eventually featured in *The Fung Kingdom.*[343] Notably the majority of the plates are not photographs taken by Crawford but are photographic reproductions of sketches and watercolours of the Middle Nile region made by eighteenth and nineteenth century travellers, among them Linant de Bellefonds (Plates 12, 13b, 16a, 18, 22, and 38).[344] Each print in Box 14 is labelled according to the following formula; Crawford describes the scene pictured e.g., "The Castle of El Kab between the 4th cataract and Abu Hamed" before giving the name of the artist e.g., "after Linant de Bellefonds" (Figure 3.16).

Though the designation "after" could be interpreted as a straightforward citation strategy, this turn of phrase struck me—there is something far more complex at play in both the physical existence of these prints in Crawford's archive, and in Crawford's response to the archival research process. What does it mean to follow 'after'? As noted in Chapter One, Riggs argues that photographs "are not unique objects and are not intended to be" (2019:47). The ease with which photographs can be reproduced means that they spread easily across archives and between institutions. Just as the act of citing a paper or research article establishes a canon of academic thought (Weiss 2018), the reproduction of photographs or images of archaeology also works to establish genealogical chains of citation. The photographic reproductions of Linant de Bellefond's sketches in Box 14 are a material testament to Crawford's research process; a breadcrumb trail pointing back to the archives in the Griffith Institute which he drew upon.

Kingdom; noting that de Bellfonds' diary was one of those "valuable European resources…available only in the original manuscript" (1951: xix; cf. Vsick 2001:52). Cailliaud experienced more notable acclaim after successfully reaching Meroë in 1821, and subsequently published *Voyage a Meroe et au Fleuve Blanc* in 1823 and Crawford cited this text as a key inspiration for his own venture (cf. Crawford 1955:287). Cailliaud's manuscript eventually became the basis for the text of the 1913 Baedecker travel guide to Egypt and Sudan (Mainterot 2014:20). This demonstrates on a broader scale my argument made in this section that the ways in which Europeans moved through Sudan were fundamentally conditioned by the drive to replicate the experiences of those who had gone before them.

[342] The Griffith Institute was founded in 1939 at the behest of the Egyptologist Francis Llewellyn Griffith as the "permanent home…for the study of ancient languages and antiquities of the Near East" (Griffith Institute 2019). Crawford was assisted in his research by Rosalind Moss, an Egyptologist, Fellow of the Society of Antiquaries and Fellow of St Annes College, Oxford (Crawford 1951a:xx; James 2004; cf. Riggs 2019:222).

[343] The majority of Box 14 comprises of 125 prints of carved stone crosses in English Churchyards. Riggs (2017) notes that copied prints made through re-photography often occupy the lowest rung in institutional hierarchies of photographs, and so the positioning of these prints at the end of Box 14 likely reflects the low level of value attributed to them by the archivist who worked on Crawford's archive in the 1970s.

[344] Linant de Bellefonds' sketches form part of the William John Bankes archive which was temporarily loaned to the Griffith Institute between 1940 and 1961 (Vsick 2001:51). Plate numbers given above correspond to plate numbers in *The Fung Kingdom.*



Figure 3.16 'After Linant de Bellefonds'. Print 14.143.

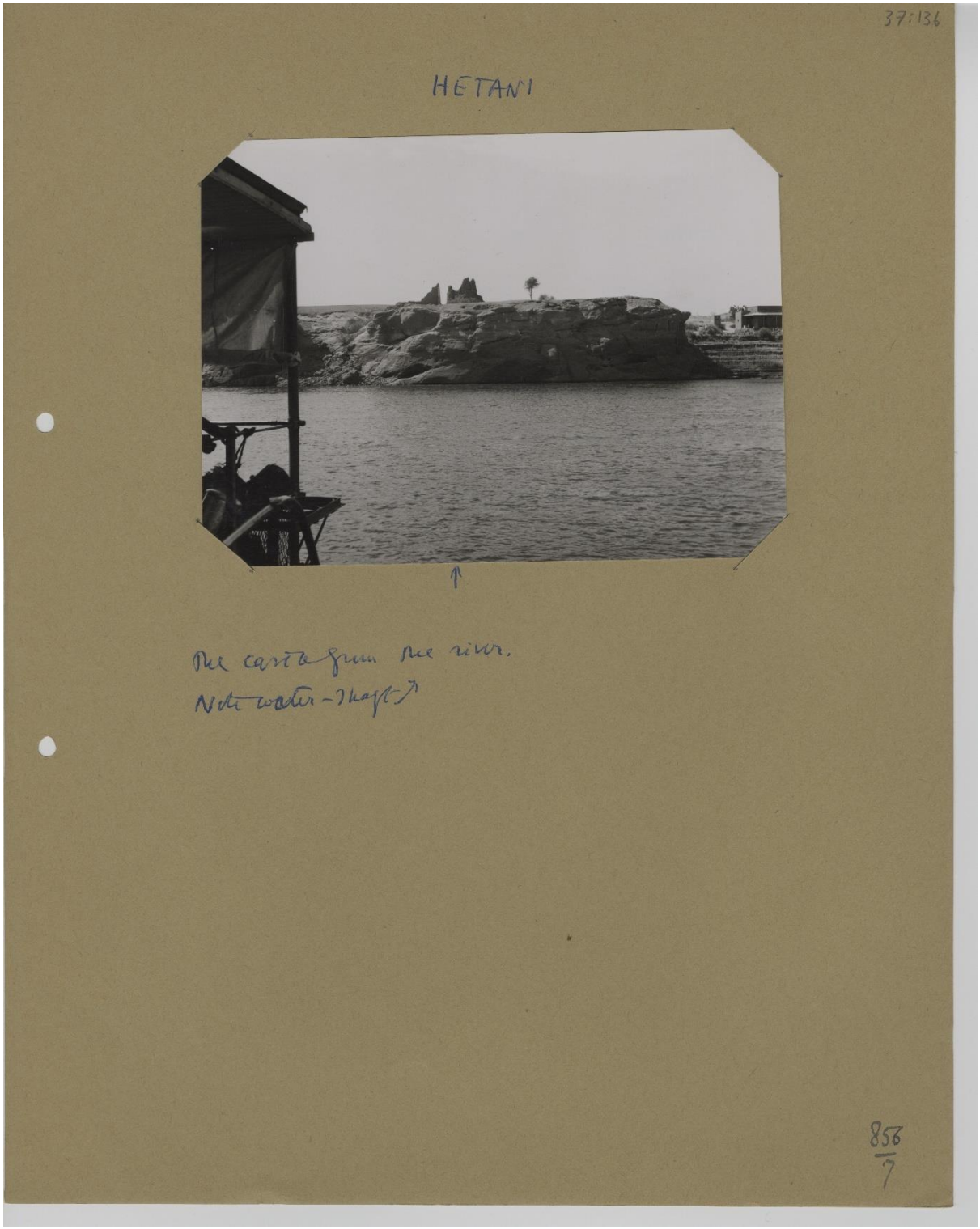


Figure 3.17 The Castle at Hetani in 1950. Print 37.136.

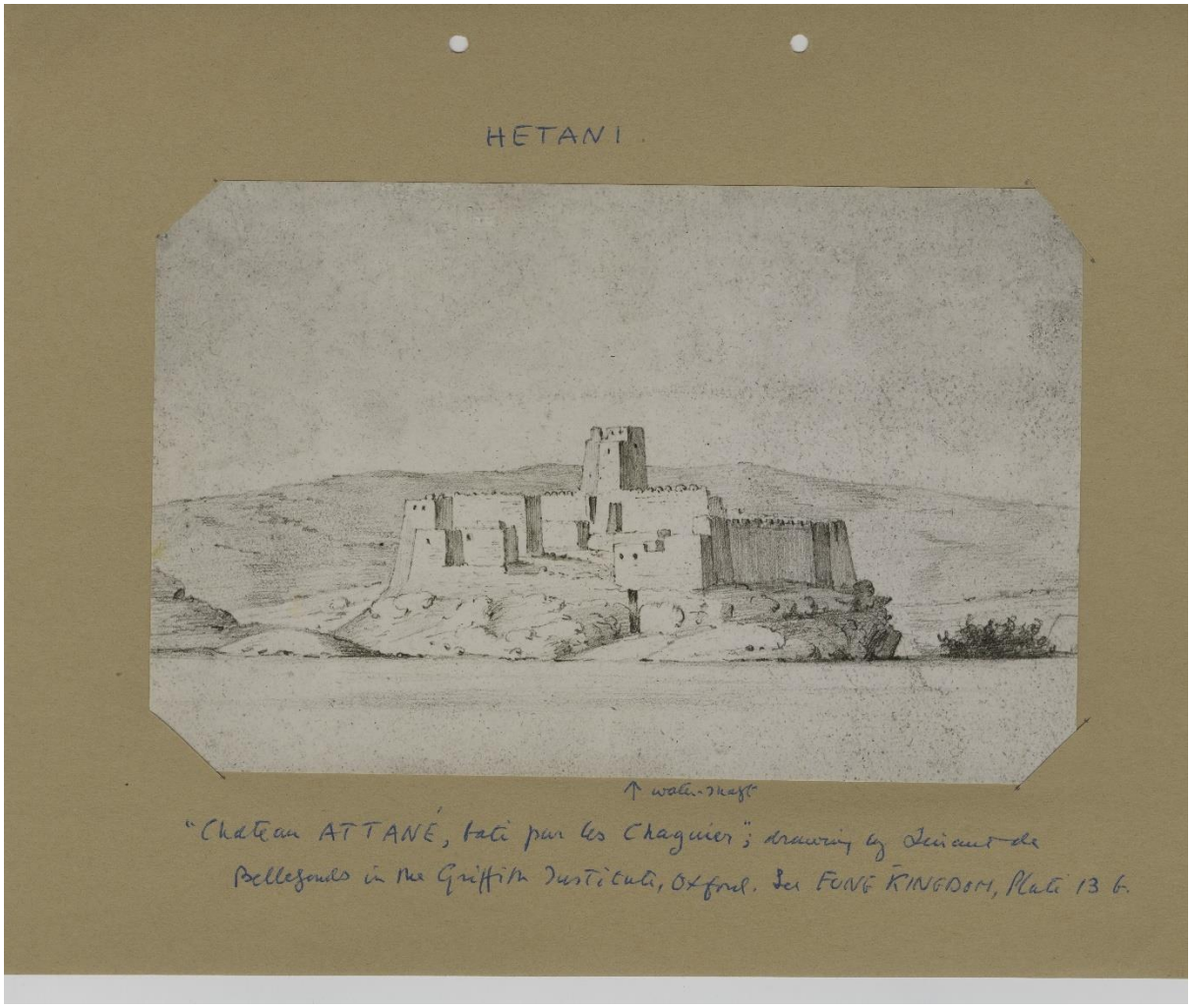


Figure 3.18 The Castle at Hetani after Linant de Bellefonds. Print 37.137.

But these 'genealogical' connections also continue to develop and spread within Crawford's photographic archive. In Boxes 27 and 37 of the photographic archive, several of the reproductions of Griffith Institute material which appear in Box 14 are repeated, this time interleaved with Crawford's own photographic studies of the sites depicted in the original sketches—as in the example of the pairing of Prints 37.136 and 37.137 (Figure 3.17 & Figure 3.18). At first glance there is a temptation to read into the pairing of nineteenth century sketch and twentieth century photograph the simple documentation of the passage of time, the ruination of the archaeological record and with it the mournful "consciousness of loss" described by Bohrer (2011:18). Certainly, re-photography is often used in archaeology as a technique to document and assess changes to historic sites over time.[345] It is not unreasonable to assume that this was a component of Crawford's motivation in taking these photographs given the dramatic changes in the condition of the structure

[345] E.g., the Historic Environment Image Resource, University of Oxford.

that are apparent in the juxtaposition of the prints, but again the significance of the term 'after' plays on my mind. In the pairing of Prints 37.136 and 37.137–each of which feature an annotation by Crawford noting the location of a distinctive water shaft—it is clear that Crawford attempted to seek out Linant de Bellefond's original vantage point. This provides an insight into Crawford's photographic process; for Crawford to reproduce such viewpoints he must have either carried with him in Sudan copies of these earlier sketches, or been possessed of such an intense familiarity with them that he could recall their details with ease.[346]

Again, looking to examples of Crawford's photographic practice outside of Sudan provides important context for understanding the meaning which Crawford may have attributed to these actions. Hauser (2008) has already written at length about Crawford's 'Marx-Sites' project, in which he tracked down and photographed the locations at which Karl Marx lived (cf. Figure 1.6).[347] Much like Crawford's treatment of the handwriting of Petrie (Figure 3.14) or the pots owned by Tylor as possessing a relic-like status, the significance of this series of prints lies not just in the photographs as images, but in the durational process of their production—Crawford's research into the locations and his pilgrimage-like visits to photograph them not for any particular quality held by the buildings themselves but for the proximity to the historic figure of Marx which they represented.

In Section 3.2.2 I noted Baird's argument that archaeological photography teases the ability to look backwards through time (the here-now becomes the there-then) (2017:169; cf. Barthes 1977:44). As noted in the introduction archaeologists often interpret this temporal work of photography to assume that they might look through a photograph to see the archaeological past (cf. Shanks 1997). But in the pairing of these prints I wonder which 'there-then' was Crawford trying to see; the archaeological past in which the Castle at Hetani stood in-use or that particular moment at which Linant de Bellefonds stood in front of it to make his sketch? I think the suggestion can be made that Crawford was just as interested in the sight/site on account of its connections to Linant de Bellefonds as he was concerned with the archaeology of the site itself. Taken in combination with the wider pattern of Crawford's photographic activity, his collection of photographs and other artefacts owned by historic figures and his visiting and photographing of sites infused with the aura of personas of historic interest, I would suggest that part of Crawford's interest in taking

[346] This process is certainly clear in a diary entry which Crawford wrote on 29th December 1951 in which Crawford compared the view before him of the east bastion of the castle at El Kab with the sketch made by Linant de Bellefonds (Figure 3.16), and puzzled over potential vantage points (MS Crawford 130.35). See also MS Crawford 130.17 in which Crawford compares his viewpoints to that of Cailliaud.

[347] In the same month (May 1934) that Crawford was tracking down and photographing Marx Sites, in his negative register Crawford recorded exposure 115/3 as a recreation of "Stukeley's View" of the Long Meg stone circle. Stukeley visited the stone circle and made several sketches around 1725.

photographs like Print 37.136 was the affective experience of standing in a place in which he knew the subjects of his research had previously stood, and seeing with his own eyes sites they had once looked upon. Here the ties between Crawford and a previous generation of European travellers in Sudan are expressed not only through the material incorporation of their work into his photographic archive, but in quite literal attempts to stand in their footsteps.

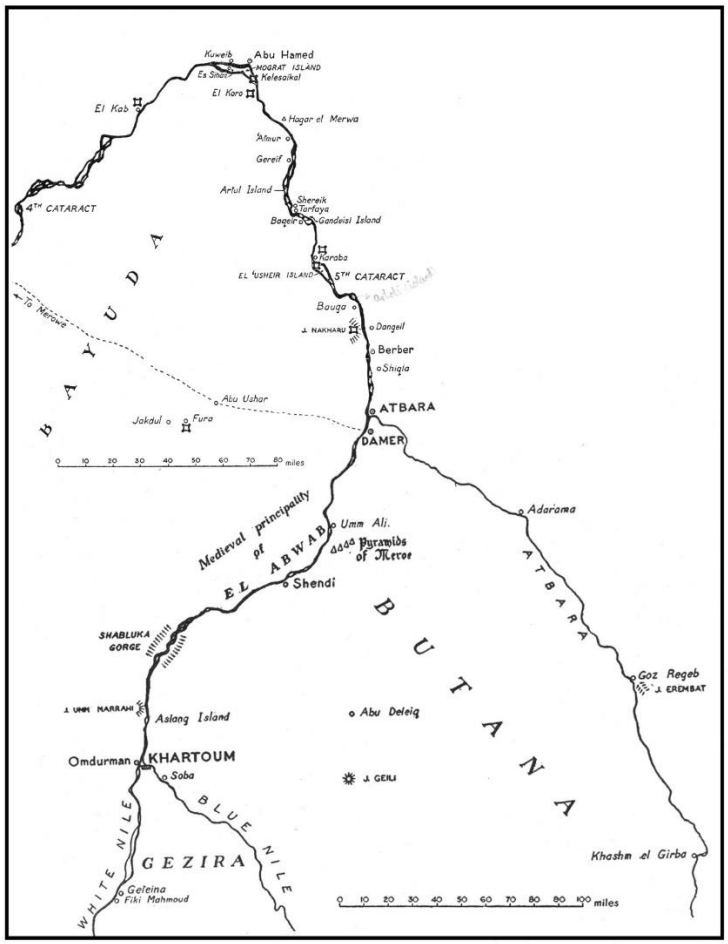


Figure 3.19 The Middle Nile Region. Composite map generated by the author combining two maps originally published in Crawford (1953b).

It is on this note of following in the footsteps of a previous generation—and the ways which this might materialise within the archive—that I return to Crawford's British Academy Expedition proposal. Crawford quite clearly stated that his intention was to mimic the explorative style of expeditionary travel which he read about during his research for *The Fung Kingdom.* Unfortunately—or perhaps fortunately given that Crawford was by now well into his sixties—concerned well-wishers were quick to point out the problems with Crawford's ambitious plans; noting that to follow the

river between Abu Hamad and Meroë would require navigating exceedingly challenging terrain with limited opportunities to resupply, and would require in excess of thirty animals to carry supplies (MS Crawford 90.7). Shinnie cautioned him "I am somewhat doubtful if you appreciate the difficulties" (MS Crawford 90.8-9). Crawford caved and amended his proposal to cover a shorter series of stretches along the Nile in smaller defined bursts of trekking between December 1951 and March 1952; a venture he and Wheeler conspired to name "The British Academy Middle Nile Expedition" (Figure 3.19).[348]

But framing the British Academy Expedition as the "revival" of expeditionary-style reconnaissance was not as straightforward as Crawford wished (Crawford 1955:287). Though interest in Sudanese archaeology was still relatively rare in the 1950s, travel to and through the Middle Nile region for more touristic purposes was becoming increasingly common (cf. Thornton 2018:39). In truth, Crawford was not even the first European archaeologist to take an interest in the region. In 1926 the governor of the Berber province Henry Cecil Jackson travelled through the Abu Hamed District recording notes on archaeological sites (Jackson 1926). Like Crawford, Jackson was inspired by the travels of Frédéric Cailliaud. His itinerary in 1926 was a direct recreation of Cailliaud's route and Jackson's published account of his own trek liberally cites from Cailliaud's *Voyage a Meroe et au Fleuve Blanc* (1826). Crawford was plainly aware of Jackson's work—having written to Jackson in preparation for his own venture, and Crawford's expedition diaries frequently and favourably compare his own observations to Jackson's: i.e. "Many of the new sites are virtually new discoveries, being given merely a mention in a list by Jackson…he mistook a castle for a monastery" (MS Crawford 91.3, 130.140).[349] In the years following the expedition Crawford defended his use of the term "explore" to describe his activities; though it may "seem too strong a word for a region so well known" he wrote "archaeologically it is still almost *terra incognita*" (1955:280). [350] In the following

[348] Letter from Crawford to Wheeler. 26 July 1952 & Letter from Wheeler to Crawford 30 July 1952. BAA/EVS/9/3/4. British Academy Archives. Crawford split his amended itinerary into five sections: 1) The area between Atbara and Goz Regeb between 11th-17th December 1951: 2) From Abu Hamed to Atbara down the east bank of the Nile between 20th December 1951 -13th January 1952: 3) The west bank from El Damer to El Koro between 16th January- 9th February 1952: 4) From Atbara to Jakdal and El Fura in the Bayuda Desert between 14th-17th February: 5) Day visits from Khartoum between 28th February- 3rd March 1952 (Crawford 1953b:2).

[349] Another of Jackson's publications *Tooth of Fire…* (1912) is mentioned on a reading list compile by Crawford (MS Crawford 95.60).

[350] Crawford had laid the groundwork for this claim some years previously. In *Man and His Past*, written towards the end of the First World War with his experiences in Sudan with Wellcome fresh in his mind, Crawford argued that the prospect of archaeological work in Sudan—and across the entire continent of Africa—represented a "practically unworked field" (1921:43). He was to return to this theme in a 1948 article on Sudan entitled "People Without a History" in which he argued that stratigraphic work was desperately needed to establish a reliable chronology of the region thus enabling "the reconstruction of Sudanese history"

sections I demonstrate that Crawford's archival and photographic practices were deeply implicated in the project of establishing the British Academy Expedition as falling under the purview of 'exploration'.

3.4.1 The Rugged Adventurer and '*Terra Incognita*'

Thornton (2018) describes the literary construction of archaeological identity in the early decades of the twentieth century; archaeologists 'scripted' their identities as rugged and well-travelled adventurers (cf. Holtorf 2007). Tales of individual heroic endeavour and 'discovery' have remained a pervasive narrative influence in the way histories of archaeology are written and in the public identity of the discipline (Moro-Abadía 2006:9; cf. Gero and Conkey 1991; Stoddart and Malone 2002; Trigger 2006; Holtorf 2007; Schlanger and Nordblack 2008; Olsen et al. 2012; Thornton 2018; Riggs 2019; Fitzpatrick 2020). Crawford had been immersed in these literary narratives of 'exploration' and 'adventure' since he was a schoolboy, and consistently and repeatedly returned to them throughout his life; as demonstrated by his request for copies of Joseph Ohrwalder's *Ten Years' Captivity in the Mahdi's Camp* (1892) while a prisoner of war, his dependence on these titles in his research for *The Fung Kingdom*, and in his references to Bruce and Slatin during his flight over Sudan in 1950.[351] I am interested here in the relationship between the research process and the eventual formation of Crawford's photographic record of the British Academy Expedition—in understanding how Crawford moved from reading popular accounts of 'exploration' and viewing nineteenth century sketches and drawings in the Griffith Institute to conducting his own travel through and photography of the Middle Nile Region. I am particularly interested in the implication that that archival encounters can set the conditions for future archaeological practice.

In Chapter Two I argued that adhering to the 'visual grammar' of archaeological photography was a means by which archaeologists could demonstrate their scientific credentials and express membership of the new school of 'Dirt Archaeology' (cf. Stout 2008). I also made the case that replicating the conventions of archaeology's 'visual grammar' was not just a matter of standardising

(Crawford 1948b:8). This interest in creating a Sudanese history distinct from that of Egypt was not driven by interest in archaeology alone, but reflected a political response to growing nationalist movements in Egypt and Sudan in the late 1940s. In 1953, Sudan was given the opportunity to choose between independence or forming union with Egypt (Karsanī and Hassan 2002:24). The British preference was largely in favour of Sudanese independence, and so academics and archaeologists began to assert a Sudanese national identity distinct from that of Egypt (Challis 2015:92). References to this wider political background are relatively rare in Crawford's work, as he believed that the pursuit of archaeology transcended all petty nationalistic concerns (Hauser 2008; cf. Crawford 1955:248), But on 17th December 1951 while Crawford was staying at a rest house in Atbara he wrote of his fellow travellers "The men are the dimmest, dreariest collection of bods that one could find anywhere…If these are the sort of people England sends out then no wonder some of the Sudanese want to get rid of them" (MS Crawford 130.15).

[351] There was something of a boom in the publication of archaeological memoirs in the 1930s, as archaeologists active in the 1880s and 1890s began to retire (Thornton 2018:44-45).

the final photographic output, but entailed scripting the way in which archaeologists conducted excavation and photographic documentation. In short—archaeologists literally changed the ways they moved in order to express disciplinary identity and to replicate certain visual effects. A very similar mechanism is at work in Crawford's British Academy Expedition. If in Section 3.3 I suggested that Crawford sought out encounters where he might feel himself to be in close temporal proximity to figures who played key roles in the history of Sudan, then in his proposal for the British Academy Expedition Crawford sought to quite literally follow their footsteps in the sand; emulating the experience of 'exploration' as scripted in these narratives as a means of establishing his own reputation along similar lines. This is manifested both in the 294 photographic prints which appear in Boxes 16 and 17 of Crawford's photographic archive and across the broader assemblage of archival and published material which Crawford produced to document his experiences.[352]

In the twentieth century the Sudanese landscape was represented to European travellers as a harsh yet romantic one; a pocket travel guide to Egypt and Sudan written in 1928 informed readers that "until a generation ago" the journey they were about to undertake was fraught with "difficulty and even danger" (Weinthal 1928:9). Key here was the embodied experience of the 'explorer' or archaeologist. Davies and Whitehead argue that frequent refence to physical suffering functioned to add the weight of authority to the testimony of travellers (2012:178; cf. Ryan 1997; Robinson 2015). Photographers performed suffering through complaints about the challenges of preserving and developing film given the limitations of local infrastructure and the 'exotic' climate (Henning 2020). Crawford was not above playing up to this image, in his negative register at the end of his 1950 venture he noted "all the rest [of the photographs] were too bad to keep…caused by old film, also by temperature changes". He was just as keen to archive his own personal sufferings; a scrap of paper headed "Some Difficulties" contains the list "White ants, no butter, beef" (MS Crawford 95.57). In his diary Crawford complained of the "agony" of trekking on a donkey (MS 130.29), of catching sunburn (MS 130.29), difficulties with trains (MS 130.38), biting flies (MS 130.55, 72), struggling to locate and

[352] Further research needs to be undertaken to fully understand the depositional context of Crawford's Sudanese photographs within the archive. The presentation of Crawford's British Academy Expedition photographs in archival boxes that sequentially predate Crawford's work in 1950 (i.e. Boxes 16 and 17, whereas the 1950 photographs are in Boxes 27 and 37) is perhaps suggestive of the work of the unknown archivist in the 1970s. Boxes 27 and 37 are labelled according to naming conventions which Crawford himself seems to have developed i.e. "Sudan I 1950" and "Sudan II 1950" whereas Boxes 16 and 17 are given the more confused titles of "American Continent, Sudan II" and "Sudan 1951-2 & Africa Gen." which also seems to speak to a later influence in composing the arrangement of material within archival boxes. See Chapter Four for further discussion of Crawford's division of material within the archive. At present I have not yet been able to detect a discernible pattern in the organisation of material within each box; e.g., in Box 17 prints are roughly grouped in clusters by location, but these clusters do not seem to hold any relation to either Crawford's itineraries, the geography of the region, the chronological order in which the photographs were taken or the thematic division of sites among Crawford's publications.

follow the path of local roads (MS 130.77, 80, 121), food shortages (MS 130.88, 90) stomach upset (MS 130.100, 107, 153), and having to sharpen his pencils with a bread knife (MS Crawford 130.153). Likewise, he would boast of slaking his thirst by drinking "many gallons of opaque Nile water, unfiltered and unbottled" (Crawford 1955:96-97, 279, 280, 286, 295, 306; MS Crawford 130.129).[353] His ability to withstand these 'challenging' conditions Crawford attributed to his Scottish heritage which he said granted him "a good physical constitution and a certain toughness of fibre" (1955:11).

This performance is most obvious in Crawford's reminiscences on deserts; "To really enjoy a desert" he argued "you must be alone in it" (1955:307). At the site of Old Dongola the Nile banks and turns north-eastwards up to Abu Hamed, where it turns yet again and curves back through Berber to Khartoum. The stretch of desert that fills this curve in the river is called the Bayuda, and since the Napatan period (9th-4th Century BCE) caravan routes have left the course of the river and cut across the desert tracking past the sites of Jakdal and Fura Wells (Lohwasser 2013:425).[354] Crawford had encountered a reference to a square fort in the Bayuda in *The Anglo-Egyptian Sudan* (1905) guidebook, and had become convinced that this was one previously described by the Antiquarian historian Bion (MS Crawford 91.83).[355] The journey to seek out Fura Wells and Jakdul was described by Crawford as his "most ambitious venture" (1953:19). The camera was called upon to witness Crawford's exploratory credentials. Print 16.121 (Figure 3.20) is titled by Crawford "A table in the Wilderness" and depicts his camp at Fura Wells.[356] Crawford's annotation reassures the viewer "this was not a 'set piece'—the Amstel was merely moved to a better position". Just as the camera might vouch for the scientific credentials of an excavator (cf. Section 2.3) so too could it bear witness to one's exploratory temperament.

[353] Though he does allow that if given the choice he would prefer a bottle of Vichy-Celestin mineral water (Crawford 1955:306).
[354] This route was also taken by troops attempting to relieve General Gordon. Note Crawford sometimes refers to Jakdal as Gakdul.
[355] Crawford tried and failed to spot this fort as he craned out over the side of the BOAC flying boat thinking of Bruce and Slatin in 1950.
[356] The phrase "A Table in the Wilderness" is likely taken from Psalm 78, which recounts the tale of mana appearing in the wilderness during the flight from Egypt.

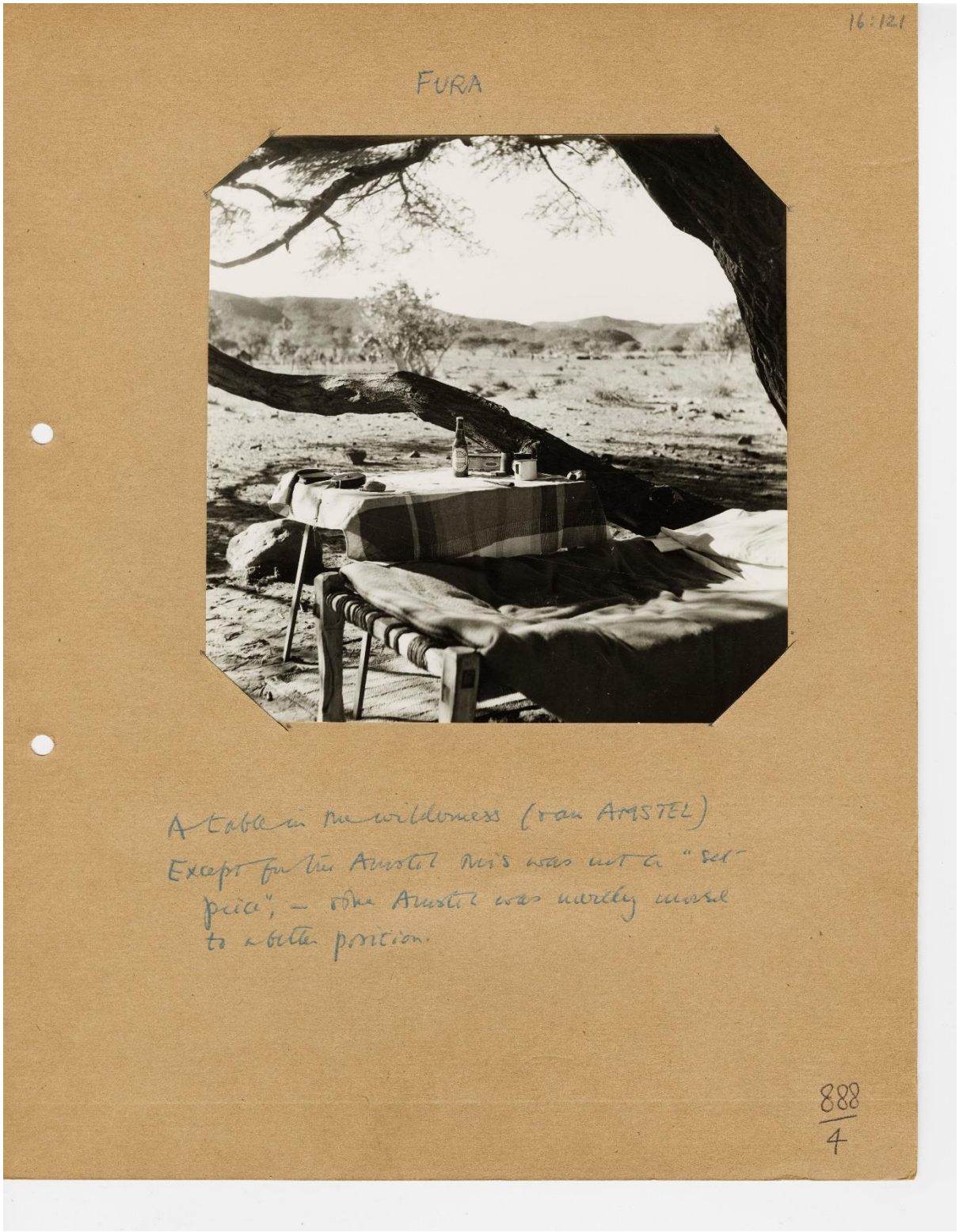


Figure 3.20 A Table in the Wilderness. Print 16.121.

If in public Crawford was keen to perform the role of rugged adventurer, in private he seems to have found the experience far more disconcerting. Crawford reflected on his camp at Fura Wells:

> There seemed to be something vaguely sinister about that tree. As I lay in bed at night and looked up at the twinkling carpet of the sky (through its network of twigs) I noticed that African trees are unlike others; however strongly the wind blows the twigs remain rigid and motionless (MS Crawford 91.45).

Of course, the challenges posed by the landscape were never completely unwelcome—in detailing his 'struggles' Crawford was able to frame his experience as approximating the hardships reported by figures like Bruce and Slatin (e.g., Crawford 1953:58,61; Crawford 1955:289).[357] It is notable that Crawford's rakish proclamation on enjoying the solitude of the desert would later become the tagline of his obituary written by Grahame Clark for the British Academy, and was seized upon by aerial historian Deuel as an utterance "typical of the man" (1969:18).

If Crawford used photography in combination with broader discursive practices to emphasise his own tribulations as part of the struggle of 'exploration', so too were similar techniques used to frame the Middle Nile Region as archaeologically unknown territory. Crawford actively imitated the aesthetic conventions of nineteenth century 'exploration' through his adoption of the 'Imperial Picturesque' with its romantic nostalgia for scenic ruins, vast swathes of untended wilderness and depictions of solitary figures dotting an otherwise depopulated landscape.[358] There are hints of this in his photography in 1950; as in a photograph of the Blue Nile at Wad Medani where Crawford was so overcome by the vibrancy of the scene before him that he annotated the print "This should be in colour" (Figure 3.21). The similarity between Crawford's composition and that of a view of Sennar (Figure 3.22) sketched by Joseph Ritter von Russegger (1802-1863) and subsequently published by Crawford in *The Fung Kingdom* is striking. This romantic and affective response to the landscape is equally evident in his expedition diaries as Crawford waxes lyrical about the "calm and glassy Nile", the "diamond clear air", the patterns of clouds seen from great distances, the lush verdancy of the trees and sunset shades of purple and violet (MS Crawford 129.8, 130.10, 130.34). The landscape of Sudan, Crawford concluded "was a most attractive and romantic one, full of atmosphere" (MS Crawford 129.8).

[357] This reflects a broader shift in the construction of western masculinity towards the end of the nineteenth century which revered "physical development, the stiff upper lip, adventure, fortitude, and action" (Deslandes 2005:5). See Riggs on the trope of archaeology as a "solitary masculine endeavour" (2019:142).
[358] See Ryan (1997), Erdogu (2002), J. Hicks (2010) and S.P. Smith (2019) for a full discussion of the Imperial Picturesque.

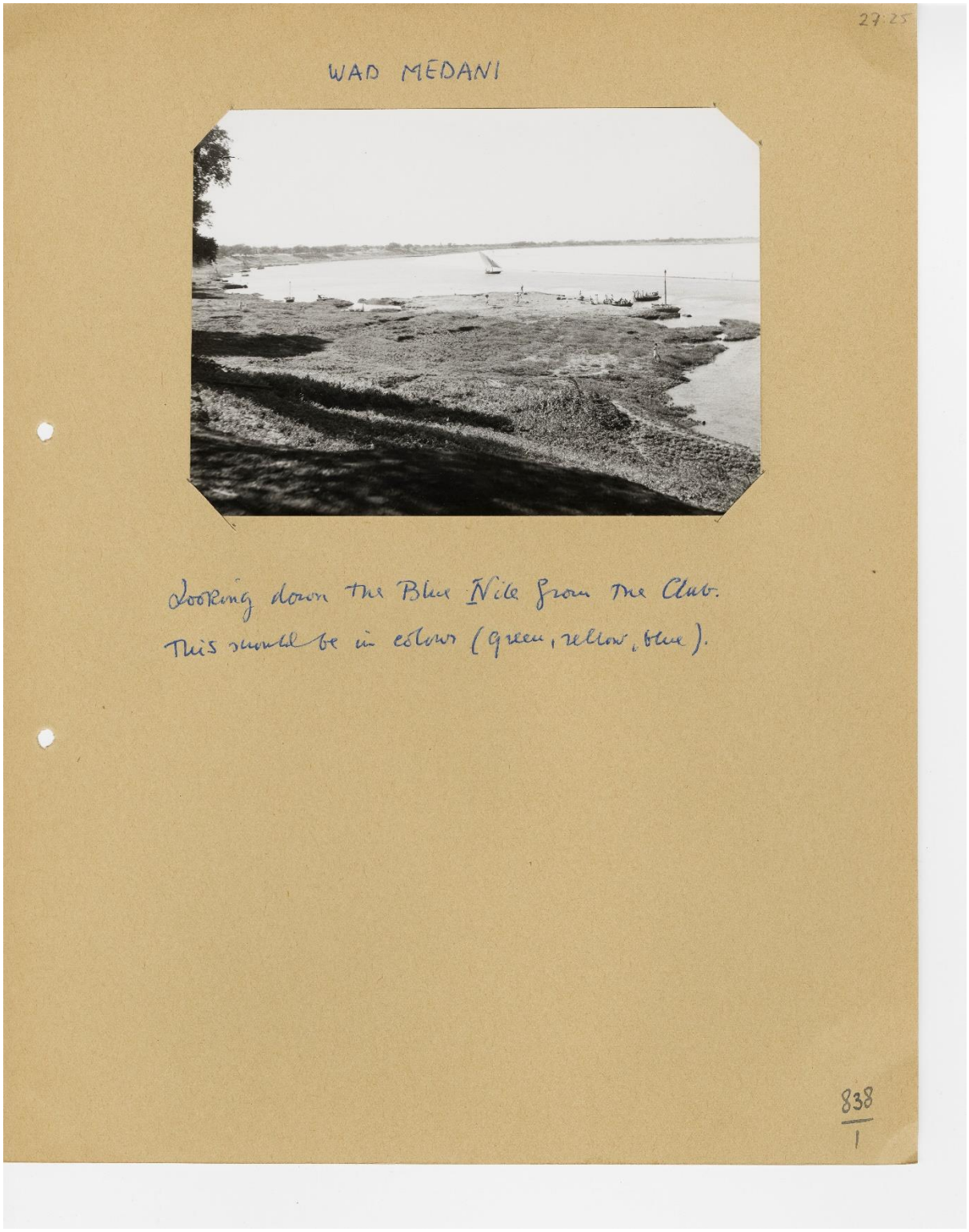


Figure 3.21 River view at Wad Medani. Print 27.25

.

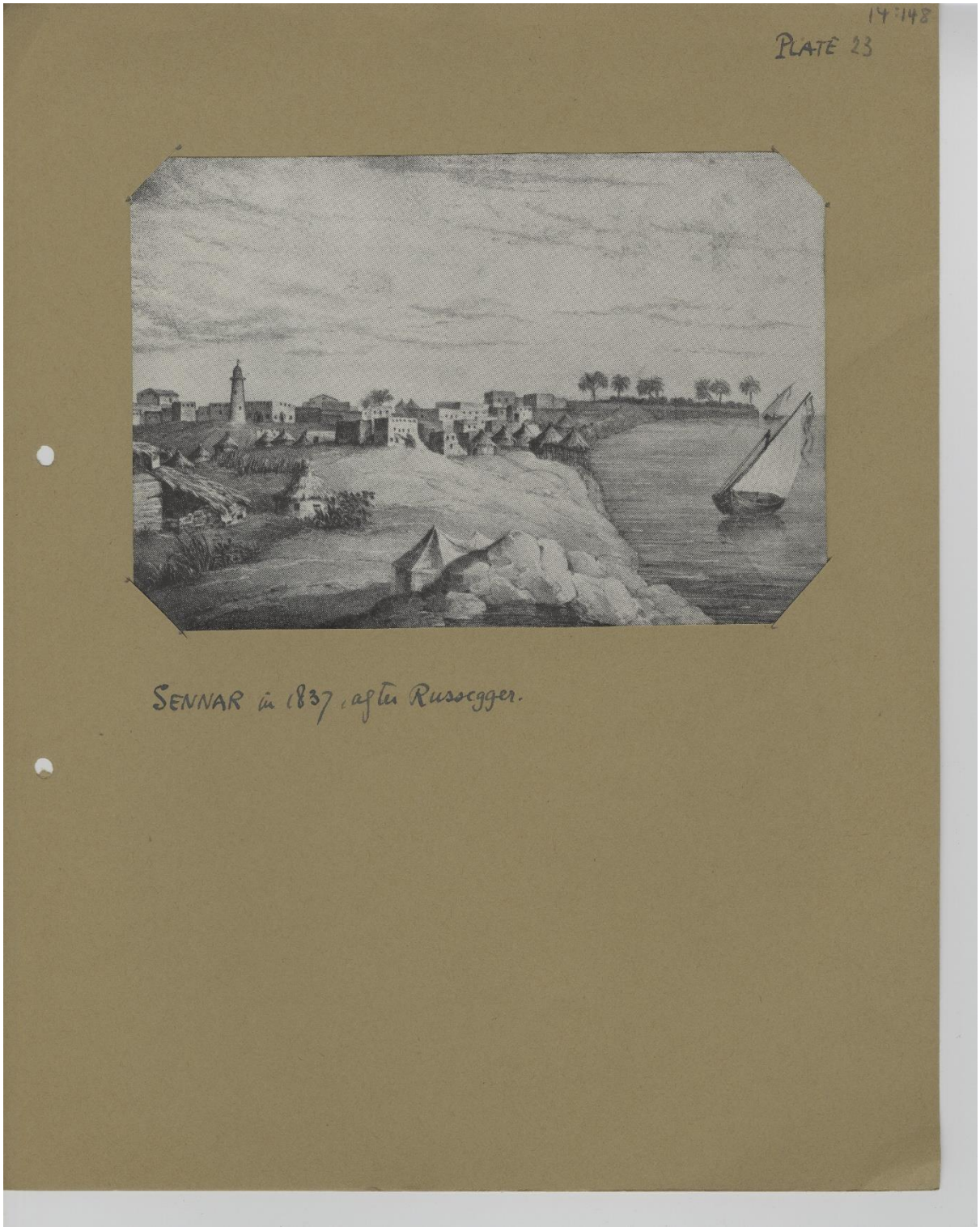


Figure 3.22 Sennar after Russegger. Print 14.148.

A common motif in the Imperial Picturesque was the presentation of three distinct "layers" in the landscape consisting of foreground, "a highlighted middle distance" featuring a "poetic object", and a hazy background (S.P. Smith 2019:282). Crawford regularly adopted this visual convention in his photographic practise during the British Academy Expedition as a means of communicating the sheer scale of the landscape which he travelled through. In Print 17.75 (Figure 3.23) a trickle of stones runs vertically up the left-hand side of the print, drawing the eye towards the horizon, where the Nile River forms a band of silver white, outlined by the black streak of vegetation on Mograt Island, which is in turn topped by the hazy grey of distant mountains. Crawford's annotation on the mount of the print, listing each of these features in turn only accentuates the visual narrative of unfolding scale. A second annotation—this time positioned halfway up the print—drawing attention to the presence of camels in the middle distance, followed by an arrow in the top right-hand corner pointing out the Bayuda Mountains seems to echo this tripartite schema. In the pairing of Prints 16.107 and 16.108 (Figure 3.24) the scale of the landscape is again produced materially in the archive through the presentation of a panoramic pair of photographs inducing a sense of space too vast to capture in a single image. Elsewhere a sense of remoteness is produced through the recurring motif of a pristine sandy foreground, punctuated by a solitary trail of footprints (e.g., Figure 3.23, Figure 3.25 and Figure 3.26).[359] Notably, despite the fact that Crawford travelled primarily in a Bedford truck following established roads—and even occasionally by rail—these modern contrivances barely appear in his photographs (MS Crawford 91.1).[360] If any hints of people moving through the landscape are present it is in the form of solitary figures on foot, mounted on donkeys, or—as in Print 17.75 (Figure 3.23)— in the presence of camels.

[359] The characterisation of the Middle Nile Region as remote, unknown and untravelled—thus making his journey worthy of the title of an 'expedition'—had begun the previous year in Crawford's editorial work in *Antiquity* (Crawford 1950a, 1950b; 1951b). Crawford complained about the scarcity of accurate maps of the region, and cautioned readers "the Editor is going on an expedition to the Sudan…While away he will be out of reach of correspondence" (1951b:170). The territory he ventured into was not nearly as remote as he suggested; Crawford was taken to task over his comments by the Survey Department of the Sudanese government, who pointed out that 1:25,000 and 1:4000 scale surveys of the region existed, and that an ongoing aerial survey had already produced over 60,000 aerial photographs (Crawford 1950b:203-204).
[360] The truck appears in a total of three photographs, and railroads and trains are not photographed at all.

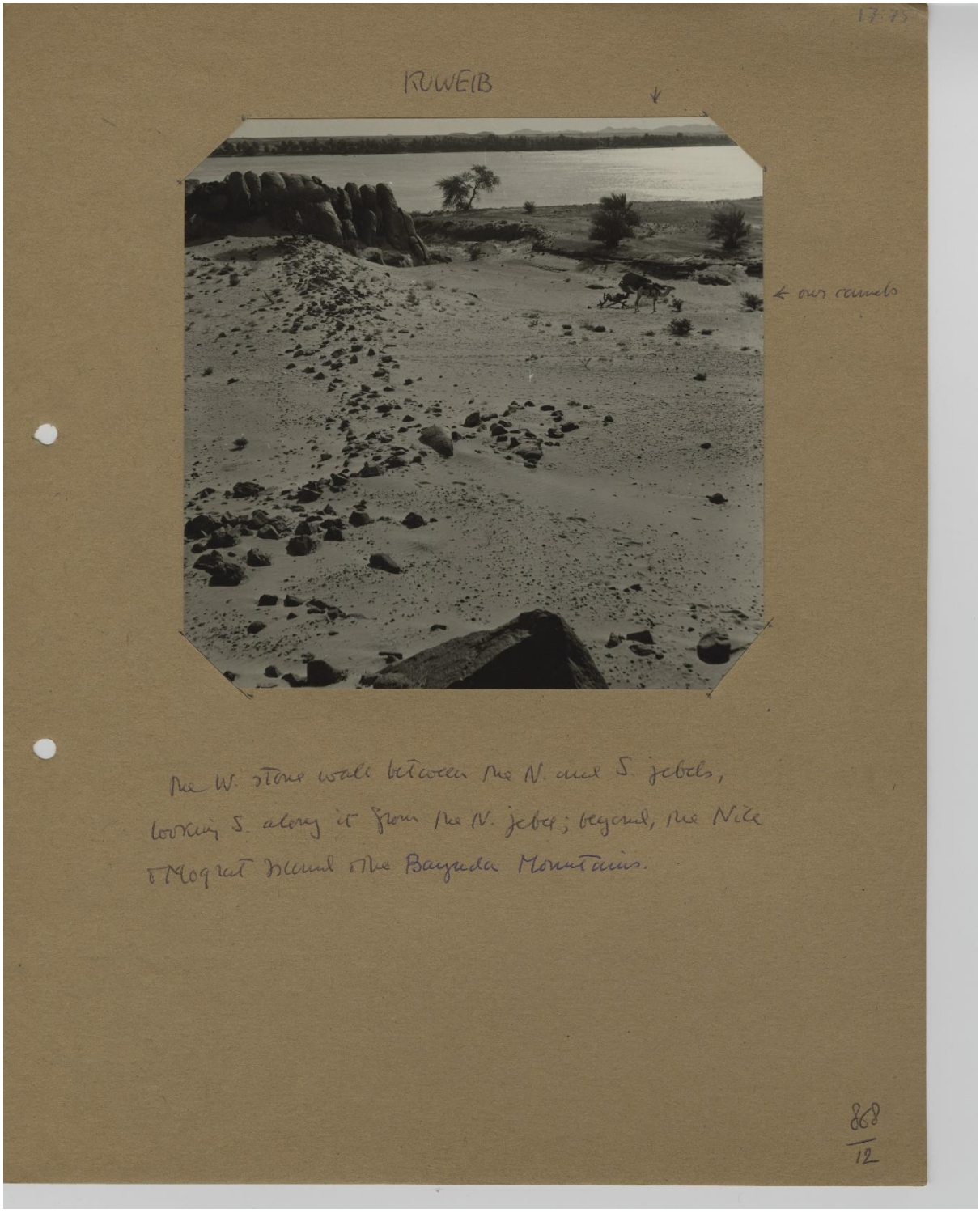


Figure 3.23 Kuweib. Print 17.75.

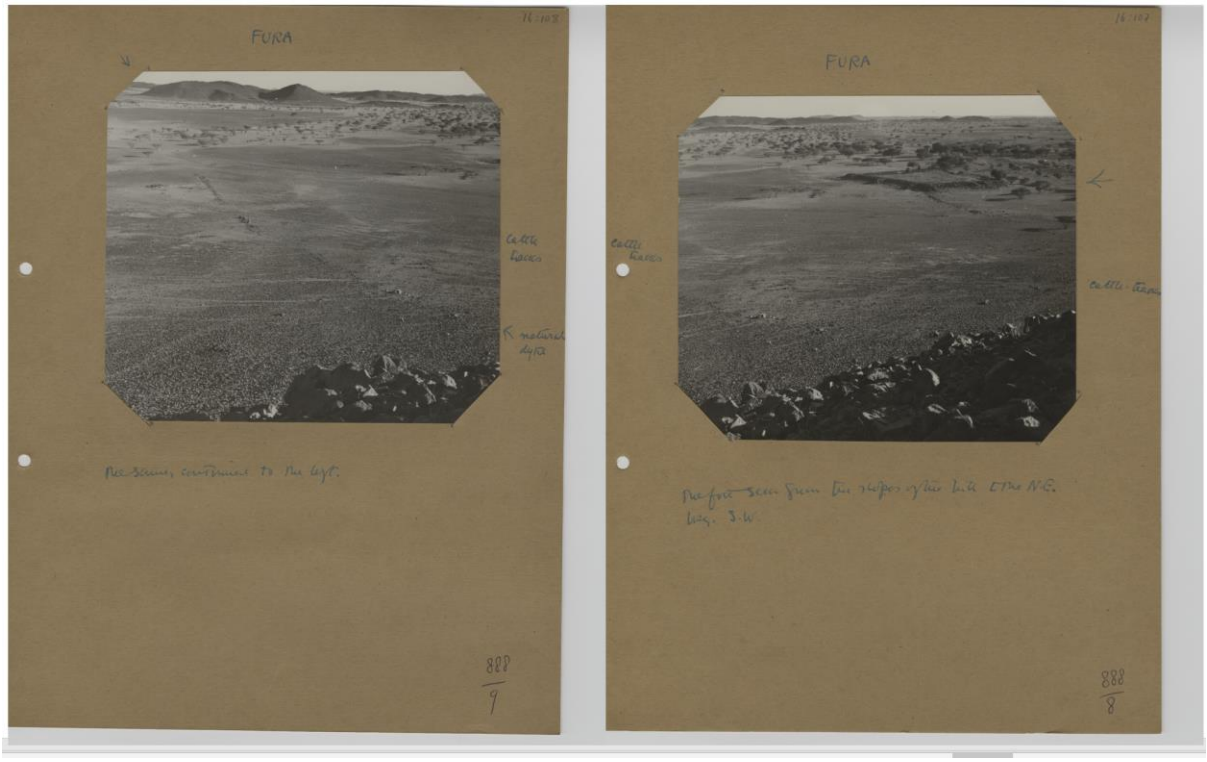


Figure 3.24 Panorama. Prints 16.108 & 16.107.

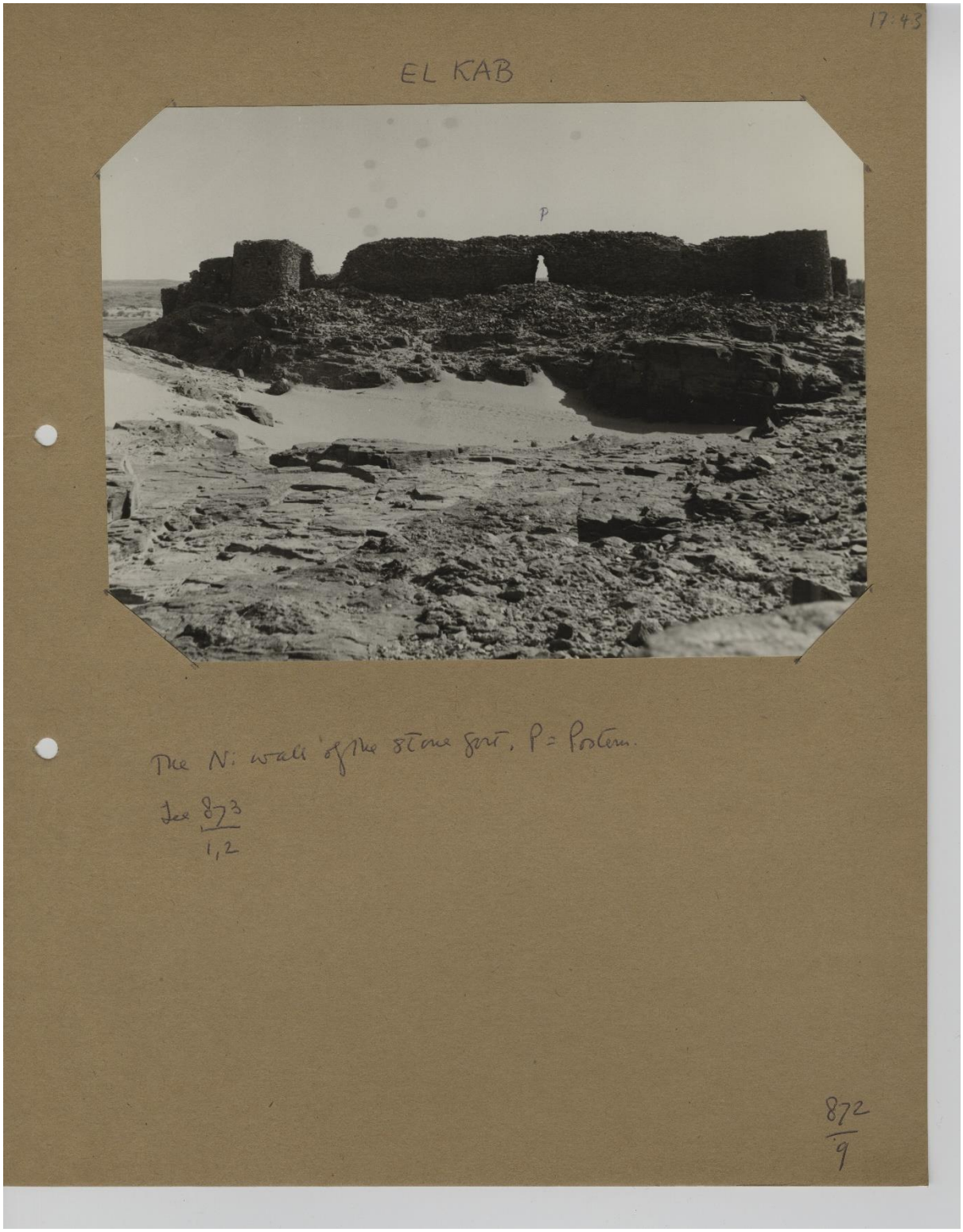


Figure 3.25 Footprints in the sand at El Kab. Print 17.43.

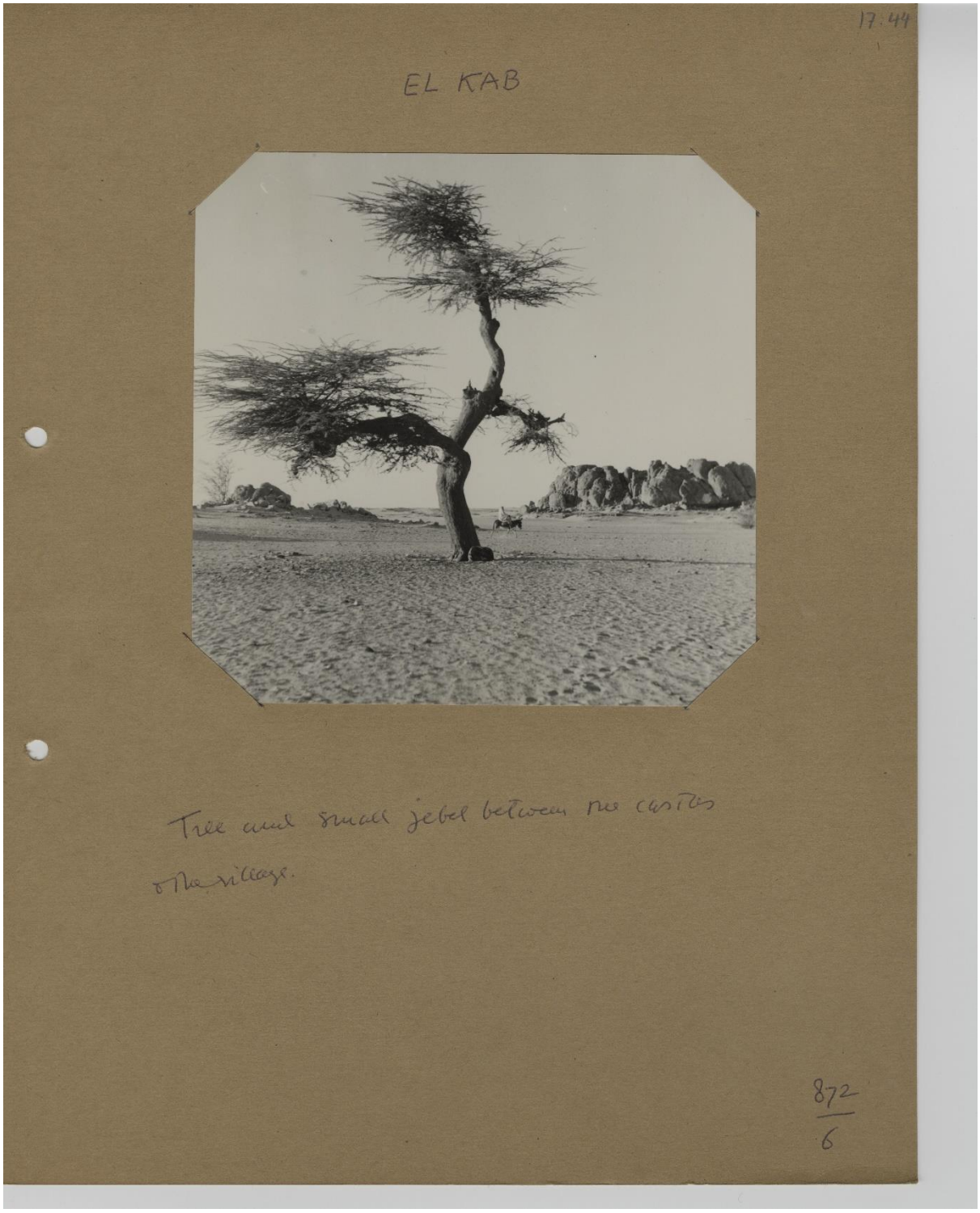


Figure 3.26 Footprints in the Sand. Print 17.44.

Notable too is the disjuncture between Crawford's annotations of the prints in Boxes 16 and 17 which present the photographs as archaeological 'records' and the aesthetic flair of the Imperial Picturesque which dominates the composition of the photographs often to the detriment of the record of the archaeology. This is most striking in Print 16.41 (Figure 3.27) in which Crawford carefully labels the architectural features of the church at Gandeisi—even noting the orientation of the photograph—yet the structure of the church is confined to the outer edges of the image, while centred in the middle distance sits a lone figure astride a donkey. The presence of this solitary figure symbolises one of the most distinctive changes in Crawford's photographic practice between his photography in Sudan in 1950 and his photography during the British Academy Expedition. Of the 332 photographs which Crawford took in 1950 a total of 48 depict people. These show bustling market scenes (Figure 3.28), studies of agricultural equipment being put to use (Figure 3.29), busy ferry crossings (Figure 3.30), or portraits of individuals of interest (Figure 3.12).[361] Often while taking these photographs Crawford was close physical proximity to his subjects, close enough in fact that in prints like 37.133 (Figure 3.30) it is possible to see details like sweat marks and stains on garments. During the British Academy Expedition, when Crawford sought to create an image of himself as a pioneering 'explorer' he took a mere nineteen photographs which feature people—and these are almost without exception those directly associated with Crawford's expedition.[362]

In noting the above examples my intention was not to undertake a comprehensive survey of all the ways the Imperial Picturesque aesthetic manifests in Crawford's photography, nor to perform a close-analysis of the parallels between Crawford's photographic work and examples of specific artworks; but rather to ask what this mimicry was intended to achieve. Just as following the scripted movements of excavation demanded by the 'visual grammar' of archaeological photography was a means of asserting one's identity as an archaeologist, here too, by bringing his photography and embodied movements into line with an existing canon of imagery of 'exploration' Crawford acted to express continuity of practice; contextualising his work during the British Academy Expedition as both descending from and returning to a broader historical tradition of 'exploration'.[363]

[361] Prints 27.9, 27.17, 27.21, 27.25, 27.32, 27.33, 27.35, 27.36, 27.37, 27.38, 27.39, 27.44, 27.45, 27.49, 27.50, 27.51, 27.56, 27.71, 27.75, 27.114, 27.115, 27.116, 27.125, 27.126, 37.1, 37.2, 37.21, 37.37, 37.38, 37.39, 37.40, 37.72, 37.75, 37.76, 37.84, 37.91, 37.92, 37.94, 37.100, 37.101, 37.109, 37.117, 37.132, 37.133, 37.141, 37.143, 37.147, 37.171.

[362] Prints 16.24, 16.30, 16.48, 16.52, 16.71, 16.106, 16.127, 17.17, 17.20, 17.21, 17.23, 17.24, 17.25, 17.41, 17.44, 17.57, 17.102, 17.109, 17.151. See Section 3.4.2 for a discussion of Crawford's representation of his expedition companions.

[363] See Baird on archaeological photography in colonial contexts as 'descending' from broader traditions of depicting landscape (2017:169).

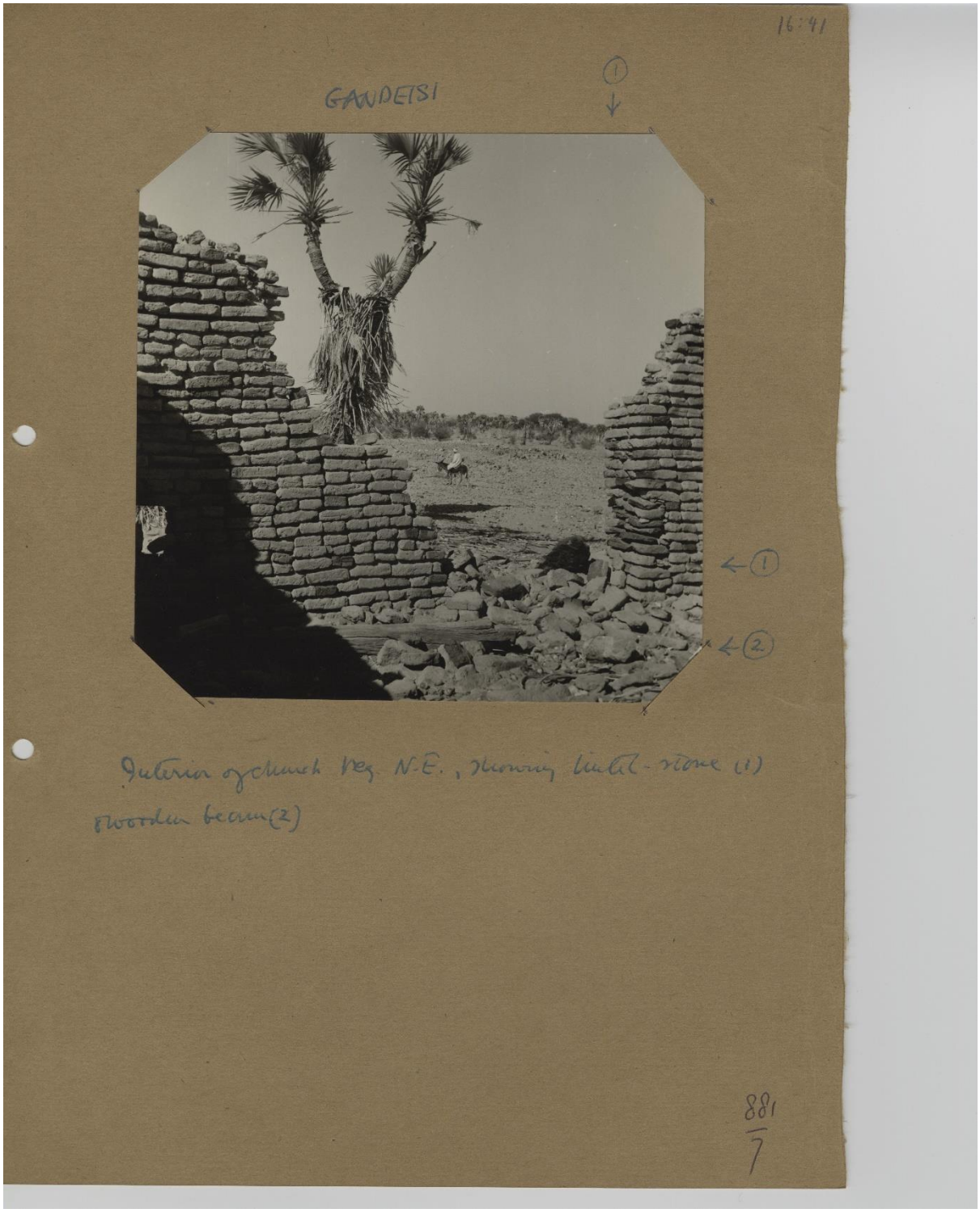


Figure 3.27 Gandeisi. Print 16.41.

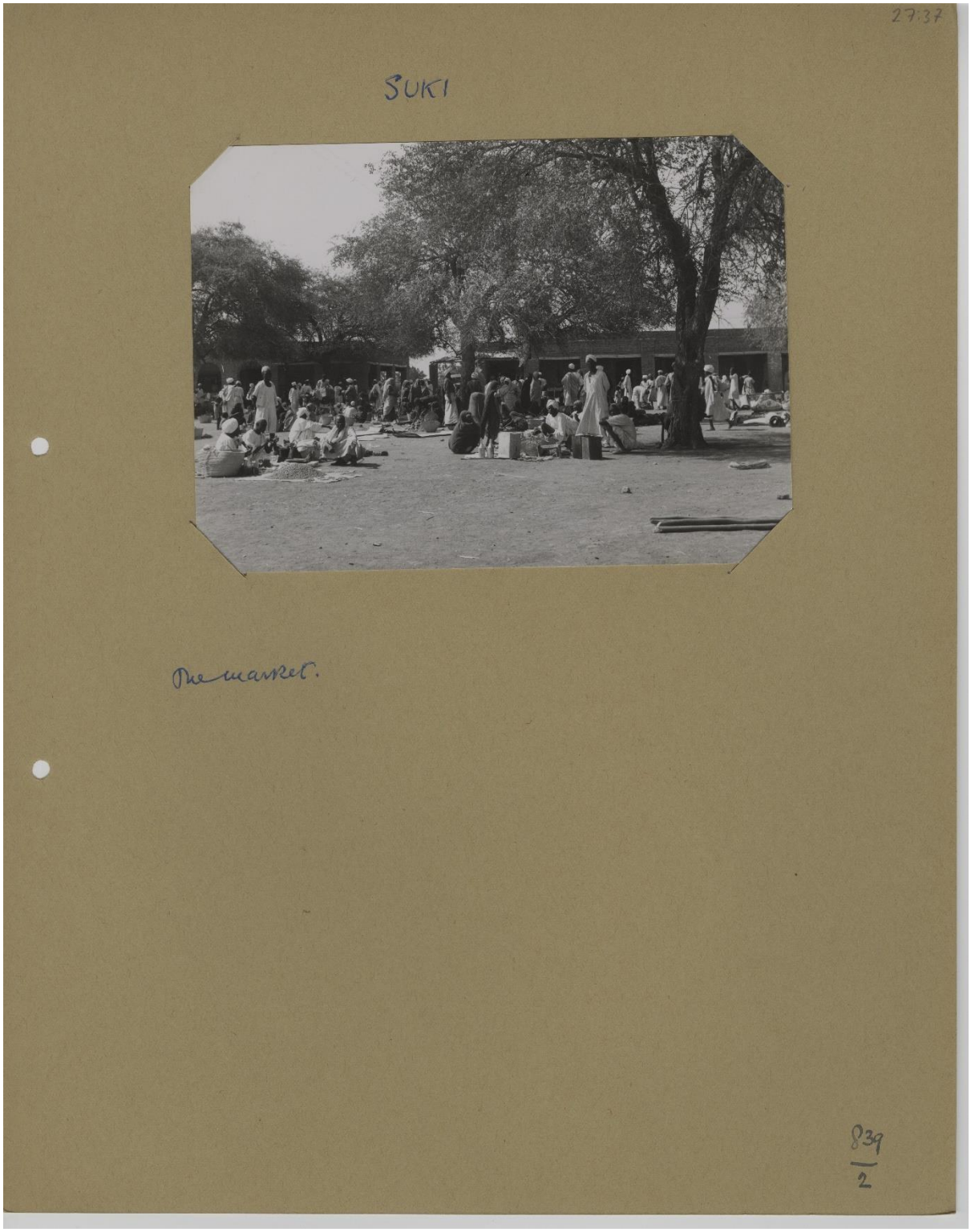


Figure 3.28 Market at Suki. Print 27.37.

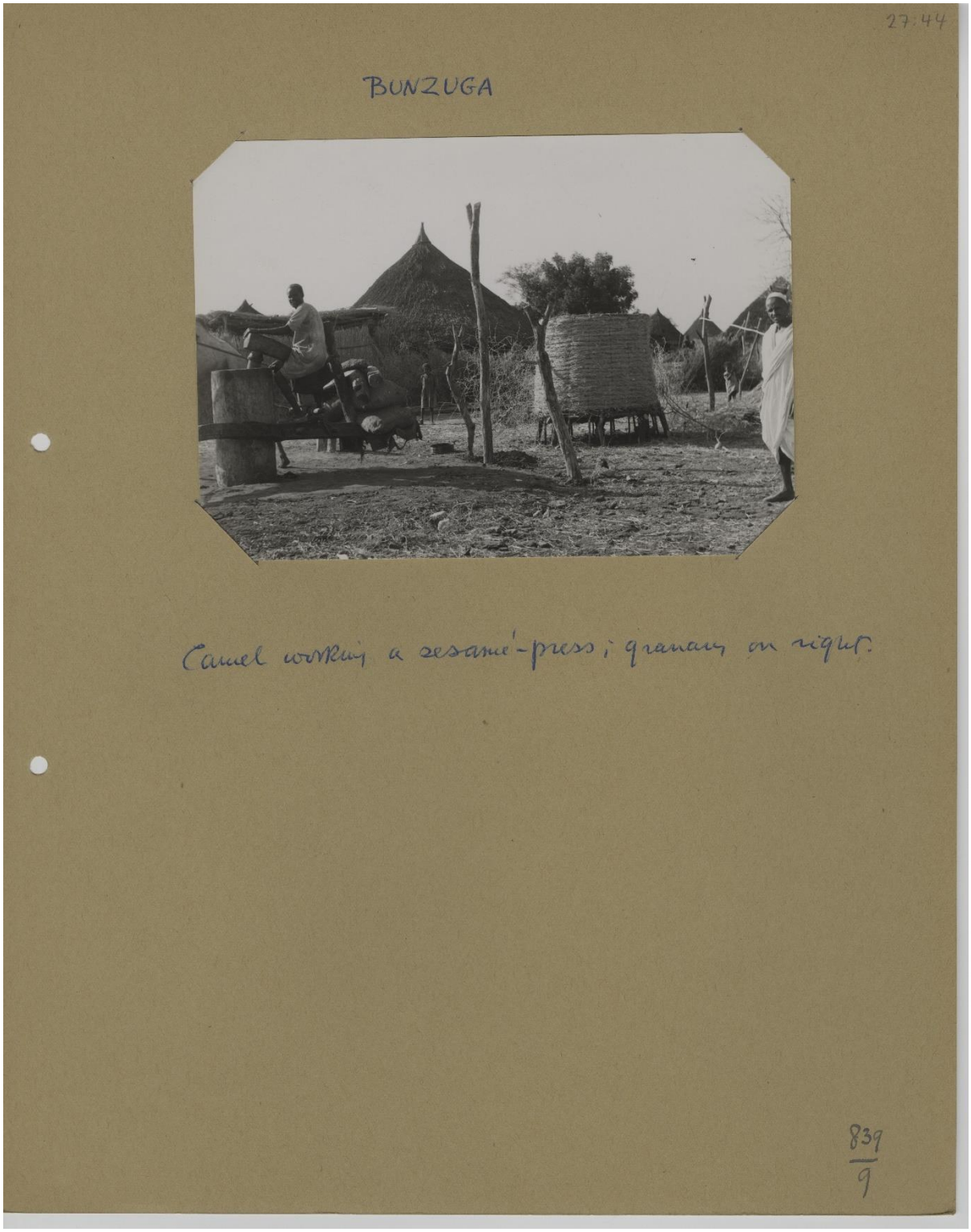


Figure 3.29 Sesame press at work. Print 27.44

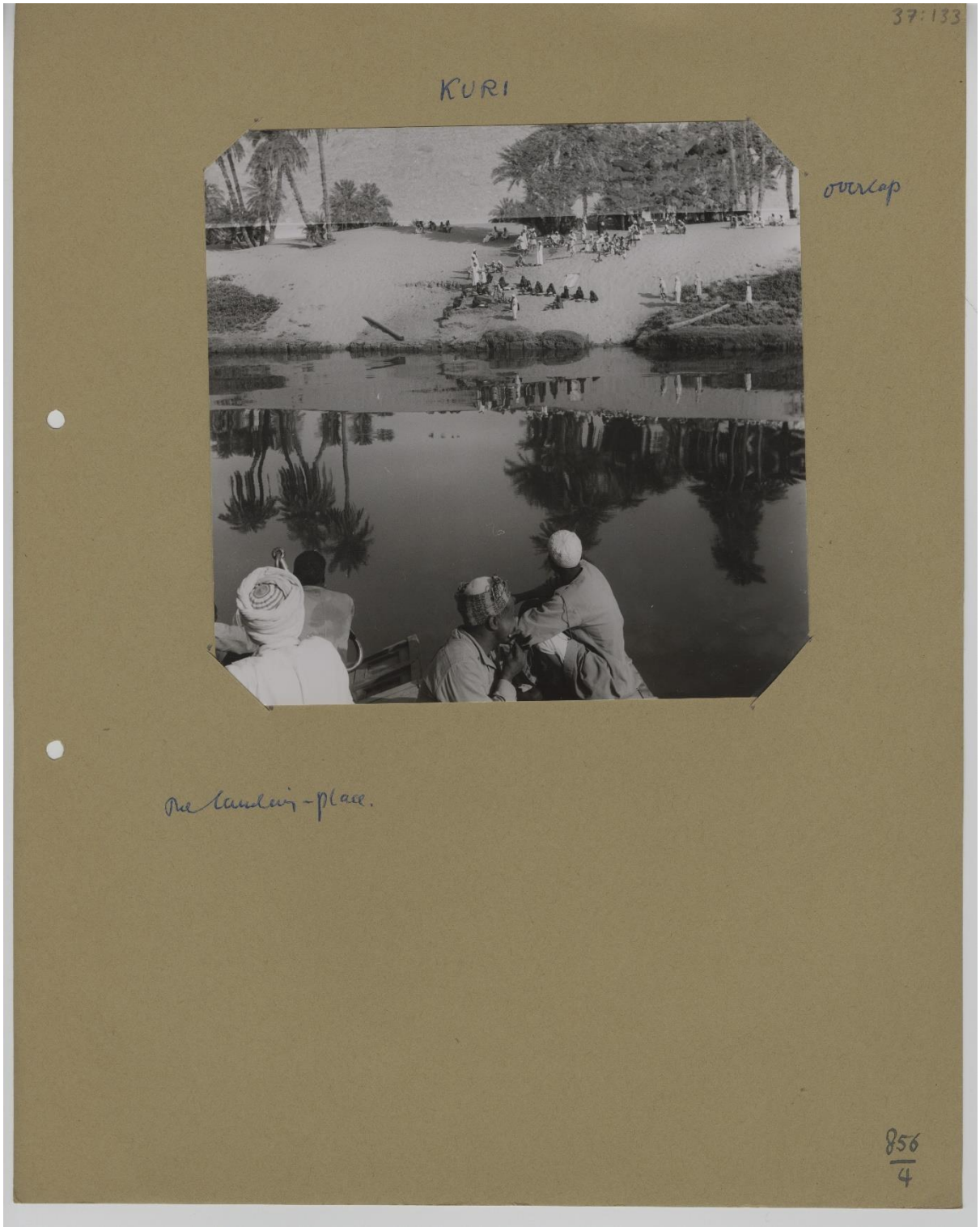


Figure 3.30 The Ferry Crossing in 1950. Print 37.133.

In Section 3.3.1 I described the covert presence of colonial violence in Crawford's photographs and argued that recognising this presence required thinking in a durational sense about how Crawford moved around Omdurman. To speak of the violence that has been done by the temporal work of photography and archaeology is to recognise that this manifests not only in photographic images but in the very processes by which photographs are made, and the long-term historical circumstances which enabled the presence of archaeologists in foreign lands. The very way in which Crawford travelled through Sudan during the British Academy Expedition was an expression of a colonial world view and was deeply entrenched in a rose-tinted nostalgia for racist narratives of 'exploration'. The very language of 'exploration' acts to erase the presence of contemporary Indigenous populations, and the knowledge of place and longstanding relationships between Indigenous people and land through the assumption that a place might only be deemed 'known' when it is experienced and understood by a western observer (Shellam et.al., 2016; Saggar 2019; Adebisi 2019).[364] As Hicks notes "settler colonialism imagined nature as a blank canvas, a *terra nullius* empty of people" waiting to be possessed (2020:125). This construction of a fantasy of uninhabited space is clearly at play in Crawford's photographs of sweeping untouched sand dunes signifying vast unexplored distances, of travel via camel or donkey rather than by train or truck, and people occupying the middle distance so that details which might reveal their contemporaneity and individuality cannot be seen.[365] The fantasy of place and time which Crawford constructed in the photographs of the British Academy Expedition is a fabrication of a fabrication; an attempt in the 1950s to return to an imagined Sudanese past which did not exist outside of the narratives and visual art of nineteenth century European 'explorers'.

[364] Moreover, though travel narratives might frame journeys undertaken as the daring or romantic expansion of knowledge, this came at the cost of imperial violence and subjugation for the people who lived in the places being 'explored'.

[365] So too do these conventions; the depopulated landscape and the anonymised figure who is positioned in or near an archaeological structure sit uncomfortably closely to the ongoing visual conventions of photographic recording in archaeology in the present.

3.4.2 A First-Rate Field Archaeologist

Much like the paradigm of histories of archaeology being written through the lens of a small number of 'founding-fathers' rather than in ways that recognise collective effort, accounts of 'exploration' in the nineteenth and twentieth century were framed as "a heroic drama in which the explorer is the principal, sometimes exclusive, protagonist and narrator" (Shellam et al., 2016:1). In reality— much like the construction of archaeological knowledge—such expeditions were collaborative ventures that were highly dependent on the labour of "guides, translators, hosts, labourers and a myriad other 'locals'" (Shellam et al., 2016:1: cf. Shepherd 2003; Quirke 2010; Çelik 2016; Riggs 2017, 2019). Despite Crawford's grandiose presentation of his travels throughout the British Academy Expedition Crawford was accompanied by three men; Mohammed Abbas whom Crawford names as a driver, Hasan Ibrahim who acted as cook and Mohammed Faqir whose contribution to the expedition forms the focus of this section. In contrast to studies which speak of the complete failure of European archaeologists to acknowledge the contributions of local archaeologists (e.g., Quirke 2010) Crawford did publicly and explicitly reference the labour of all three of his companions; as for example in an article published in the journal *Kush* wherein Crawford names and thanks the men describing them as "loyal and devoted workers" (1953:2).[366] However, recovering more detailed accounts of this local labour is a task that yields varying levels of success. As Callaci argues it is often only in the margins—a line in the acknowledgements section of a publication or in the opening notes of a presentation—that details can be found which undermine "the myth of the lone, self-contained genius-at-work" (Callaci 2020:127; cf. Thornton 2018; Maloigne 2020).[367] bell hooks wrote "To be in the margin is to be in the whole but outside the main body" (1989:20), such is the presence of Crawford's companions in the archive and in the publications—simultaneously partners and collaborators in the archaeological project and yet held outside of it. And so, recovering a nuanced picture of Crawford's working relationship with these local labourers requires a willingness to turn to a very different standard of source than those used to write the histories of European archaeologists. Moreover, it requires mobilising and cross-referencing a whole series of these marginal details from across the assemblage of Crawford's archives and written publications.

There are hints in the photographic archive that speak to a genuine warmth and playfulness between the companions, a dynamic which came about precisely because of the presence of the camera. It was not just Crawford who played at being an intrepid adventurer in the desert. In his negative register Crawford records a shot of "Mohd. Abbas lying ill on the ground in the desert

[366] The three are also named in *Said and Done* (1955).
[367] As Çelik notes, Quirke is perhaps a little too general in his assertion that a refusal to acknowledge local labour was the norm for European archaeologists (2016:136).

(posed and photographed thus at his request!)" (Neg. no. 867/9).[369] In a group photograph, taken at a graveyard at Goz Regeb (Figure 3.31), it is Abbas who wields the camera, while Crawford, Faqir and a group of unnamed local dignitaries pose. In the print Faqir stands slightly apart from the local men, and grins at the camera—or perhaps at the man operating it? Part of the humour of the situation may have come from the reversal of the role of photographer and photographed, as is hinted at in Print 17.24 (Figure 3.32), another group shot taken by Abbas which catches Crawford, mouth hanging open as though he is attempting to give direction to the camera operator. Similarly, on 16th December 1951 Crawford reported in his diary an almost farcical scenario where the days labour had to be abandoned as Mohammed Abbas "has a boil on his bottom" (MS Crawford 130.12-13).

Crawford's labelling of Faqir, Abbas, and Ibrahim—sometimes even scoring their initials into the surface of the prints themselves (Figure 3.33)—and his notation of these anecdotes in his negative register and diary extends a recognition of the presence of his companions in a manner that exceeds that offered to Basil Brown, Bert Fuller, William Spooner and John Jacobs in his photographs of the Sutton Hoo excavation. Unlike the crowded and anonymous group of workers common in colonial era photographs of excavation (cf. Bohrer 2011), each of Crawford's companions on the British Academy Expedition takes on a distinct personality and presence in the archive. It is a deeply compelling experience to be able to hold a photograph taken by Abbas, to imagine what advice Crawford might have been attempting to offer the photographer. Traces of the men are often fleeting; Mohammed Abbas and Hasan Ibrahim flit in and out of Crawford's diaries and photographs of the journey, as do a number of local *omda's* who shared with Crawford food, accommodation and knowledge of the region. But the presence of these companions is visible, if one determines to look for it. Taken alone each snippet may reveal relatively little, but piece by piece, fragment by fragment, collectively these details begin to assemble a broader picture of marginalised labour.

[369] In Crawford's diary he also makes reference to giving a ferry worker a developed print of the group operating the ferry, and so it seems that the social currency of photography could be transmuted into fiscal currency too (MS Crawford 130.128-9). It's possible that the photograph Crawford refers to is reproduced as Print 17.57 in the photographic archive.



Figure 3.31 Crawford, three unnamed figures and Faqir at Goz Regeb. Print 17.21.



Figure 3.32 Crawford, Faqir, Hasan and three unnamed figures. Print 17.24.

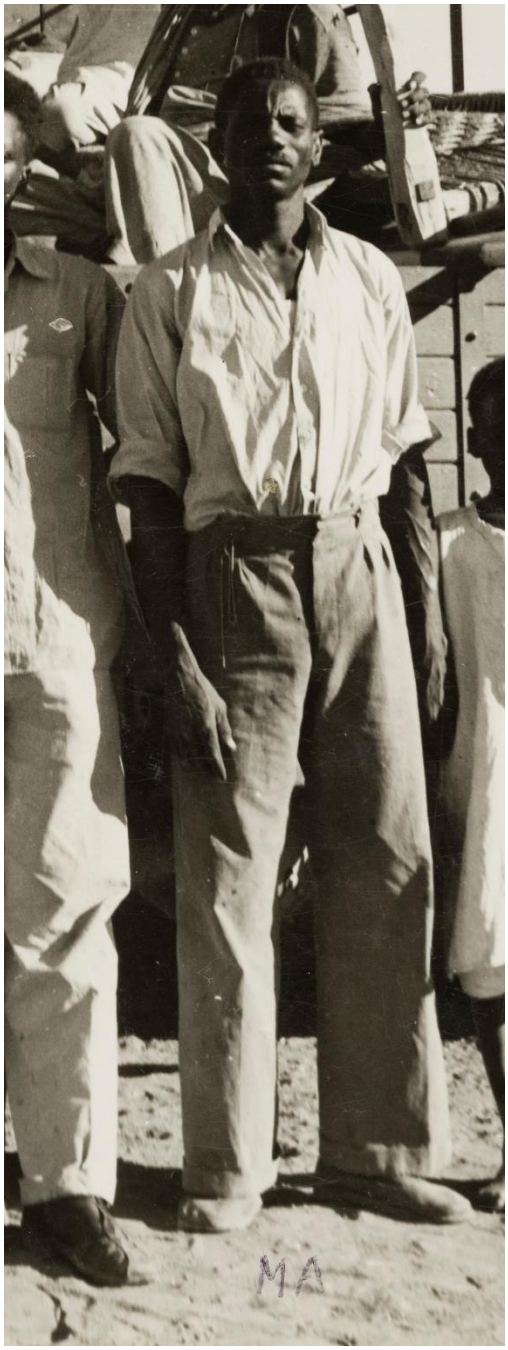


Figure 3.33 Mohammed Abbas. Initials scored into print. Detail from Print 17.25.

Out of the traces of the three men, Crawford's relationship with Mohammed Faqir is both most extensively testified to in Crawford's archives, and most nuanced in its dynamic.[370] Trigger has argued that "Archaeologists who thought of themselves as friends of the Sudan and its peoples and who believed that they were using archaeology to serve these people's interests" still operated within theoretical paradigms that were racist in nature and were used by others to justify colonial and imperial policies (1994:335). By turning to Crawford's photographs of Faqir, it is possible to see this dynamic described by Trigger enacted on a micro scale. It was a relationship defined, at least on Crawford's part by inconsistencies, hypocrisy and a deeply uneven balance of power. Nowhere is this dynamic manifested more clearly than in Print 17.102 (Figure 3.34). The photograph was taken on the afternoon of the 16th January 1952, about a month into the British Academy Expedition. In Crawford's negative register, he notes that the photograph shows the "6 courses of masonry" involved in the construction of a wall at Jebel Nakharu. From this brief description, it would seem that the man sitting in the right-hand edge of the print will go unmentioned. But, on the mount of the print itself Crawford labels Faqir and adds an anecdote; Faqir has a cold and the camera has caught him mid-sneeze! There is a temptation to read in Faqir's expression the suggestion of a smile as well as a sneeze, there is intimacy in this shared moment of surprise.[371] The conflagration of chance that led to the documentation of this moment clearly left enough of an impression upon Crawford that he took care to record it when he mounted his prints, presumably some months later after returning to England.

There is evidence to suggest that Crawford held some measure of professional regard for Faqir. On paper at least, Crawford was prepared to admit that anyone could adopt the scientific principles of archaeology. In a backhanded compliment he wrote:

> Scientific Archaeology was born in the North…but science—true science—ignores national and racial frontiers, and the backwards countries are waking up to the study of their own past. Egypt is beginning to produce its own archaeologists (Crawford 1938a:3).

Perhaps he was thinking of the *ruasa* he had worked with in Sudan in 1913; and the Sudanese foreman who was able to see what he could not. In Faqir, Crawford encountered another highly skilled archaeologist. Faqir had been introduced to Crawford via Dennis Vidler, with the initial intention that he might assist Crawford with navigation (Crawford 1955:288). He was, Crawford wrote, "in his twenties…hard as nails, highly intelligent and with the eyes of a hawk" (1955:289). Though Faqir was initially contracted to assist with the navigation between Atbara and Goz Regeb

[370] See Maloigne (2020) for a similarly nuanced discussion of the relationship between Leonard Wooley and Sheikh Hamoudi.
[371] Cf. Çelik (2016) on the role of 'imaginative guesswork' in the interpretation of historic photographs.

(the first stage of Crawford's journey) he ultimately remained with Crawford for the entirety of the expedition (Crawford 1955:289). His continued presence was clearly key to the success of the venture and is felt in the archive in a number of forms. Crawford's diaries of the British Academy Expedition record no less than eleven instances in which Faqir was solely responsible for archaeological discoveries.[372] On three separate occasions Crawford was to describe Faqir in glowing terms as "a first-rate field archaeologist" (1955:289; MS Crawford 130.68; MS Crawford 91.17) and on another refers to Faqir's "unerring flair" for archaeological discovery (1953:34). These incidents can be supplemented by further instances in which Faqir had to correct mistakes made by Crawford—as at the castle at Gandeisi when Crawford mistakenly identified a gate as a semi-circular bastion; "Mohd. Fagir put me right" (MS Crawford 130.105; cf. Crawford 1953:29-30). In one anecdote Crawford took off with a local dignitary hoping to show him around a newly 'discovered' site only to become hopelessly lost and have to return to ask Faqir to accompany him; "He took us straight to it, of course: thus was the field archaeologist put to shame by the unlettered but highly intelligent nomad" (MS Crawford 130.69-70).

Reading between the lines, Faqir is likely to have been responsible for more than the eleven discoveries listed by Crawford. On at least one occasion in his diary Crawford attributes a discovery to himself, before adding an amendment to recognise Faqir's true role (MS Crawford 130.9).[373] Another hint at the volume of discoveries made by Faqir is found in a diary entry for 18th January 1952, in which Crawford crows triumphantly over the identification of a small red brick church; "The most exciting discovery and for once entirely my own" (MS Crawford 130.82).[374] If Crawford's claim to be conducting 'exploration' rested on locating archaeological features that had previously gone unidentified, then it must be forcibly stated that it was Faqir and not Crawford who did the actual work of recognising and interpreting these sites. With this knowledge, one must look again at Crawford's photographs and ask how many of Crawford's authoritative annotations of his Sudanese photographs may well be conduits for the expertise of Faqir. Though the material presentation of the photographs in the archive might seem to be the product of Crawford's hand alone, this is a timely reminder that the production of an assemblage such as Crawford's archive is never the product of a single individual, and instead bears the traces of multiple contributors.

But if these written testimonies and the photograph of the sneeze speak to the possibility of respect and even comradeship between the two men, a diary entry for 12th January 1952 in which Crawford

[372] MS Crawford 130.8, 9, 33, 34, 38,66, 76, 114, 125, 126, 128.
[373] "This morning at the foot of the Jebel I found (actually Md. Tagil did) a large river-oyster in the mud" (MS Crawford 130.9).
[374] See also MS Crawford 130.76 in which Faqir insists that he has spotted an inscription carved on a rock, Crawford notes "as always he was right".

admits—after a month of travelling with Faqir—that he has only just learned Faqir's correct name demonstrates the fundamental limitations of this dynamic (MS Crawford 130.65).[375] Unlike other examples in this chapter where the theme of return manifests through Crawford's conscious efforts to reference his past experiences, here Crawford seems to repeat a pattern of behaviour that began with his disinterest in recording the name of the Sudanese foreman in 1913, and manifested again in his confusion over Muhammad Abdelrahman's greeting at the museum in Khartoum in 1950. Crawford's failure to learn the names of the archaeologists around him speaks volumes about the extent to which he was prepared to seriously consider them peers.

[375] "Mohd. Fagir- it seems I've spelt his name incorrectly herein before" (MS Crawford 130.65). In all previous diary entries Faqir is referred to as Mohd. Tagil.

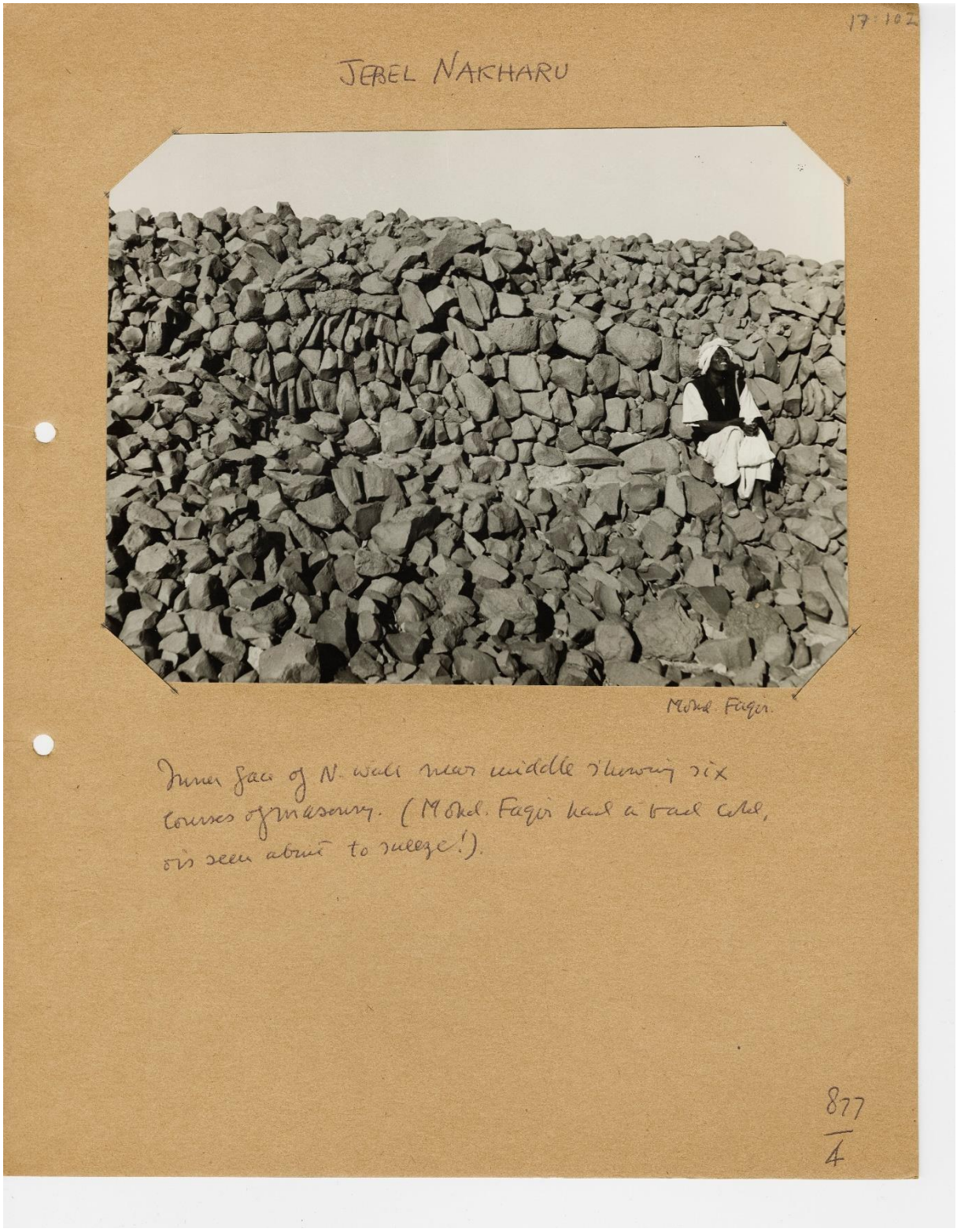


Figure 3.34 The Sneeze. Print 17.102.

Another troubling pattern that repeats itself—this time across the photographs from the British Academy Expedition—is the positioning of Faqir as a human scale. In Print 17.41 Faqir is standing, rather than sitting, positioned to the far-right hand side of the frame, one shoe obscured by the mount of the print (Figure 3.35). His face is downcast, the angled sunlight casts a shadow that falls over much of his face, rending it hard to see much of his carefully neutral expression.[376] Unlike print 17.102, there is no accompanying anecdote to soften the implications of the composition. Faqir's name is written at the side of the mount—a nod at least to his human presence—but the bulk of Crawford's annotation concerns the sequencing of the structure of the castle walls, and the labelling of the respective features. This was not an isolated incident. In his lecture given to the British Academy, Crawford noted "Mohamed Faqir as usual provides a scale, he was about five feet high" (MS Crawford 91.12).[377] There are five prints in archive which show Faqir adopting this role. Crawford's decision to photograph Faqir in this manner was a deliberate one. In a photograph of the Bedford truck in which the group travelled (Figure 3.36) a number of graduated rods are clearly visible in the foreground, and so the posing of Faqir was not an act arising from the lack of any other means of indicating scale, but a conscious choice.[378] One that most likely represented the uncritical reproduction of the visual grammar of archaeological photographs in colonial contexts.[379] I wonder what thoughts ran through Faqir's head as he was repeatedly asked to pose in this manner, and how he would have felt about the photograph of the sneeze. I will never know the answer to this question of course—because these are not the kinds of details which Crawford saw fit to record.

This is not the only example of Crawford regurgitating the racist tropes that were prevalent in archaeological discourse at the time. On 7th January 1952 Crawford was in a foul mood. When planning the ruins at Tarfaya he found that his base-line had fallen and all his measurements were off. Crawford laid the blame for this at the feet of Faqir, writing spitefully in his diary:

> On measuring my first traverse I found I had somehow dropped a whole tape…people were crowding round at this time which partially accounts for it: but it is also extremely difficult working with a completely untrained chain man- the idea of straightness, accuracy and routine are completely foreign to the uneducated human being, & [sic] there is in this case no desire to learn- though he does pick up a few routine details (MS Crawford 130.49)

[376] See Croft (2004) on reading the expressions in colonial photographs.
[377] Print 16.71 was taken after print 17.102, so it is not the case that the former indicates any softening in Crawford's attitudes.
[378] At times Crawford seems to demonstrate an incredibly blasé attitude to the use of a scale, as in Print 37.149 in which Crawford positioned a grapefruit next to a grave, annotating the print "grapefruit for scale".
[379] One such rod can be seen in use in Prints 17.88, 17.79 and 17.89. See Chadha (2002); Guha (2012); Carter (2015) and Baird (2011, 2017, 2019) on the long history of the use of human scales in colonial archaeology.

Crawford's words carry with them echoes of Mortimer Wheeler's photographs of 'Chaos' and 'Discipline' (Figure 3.4), and Wellcome's organisation of the camp at Jebel Moya. By insulting Faqir's sense of "straightness, accuracy and routine" Crawford returns to these deeply ingrained tropes of the white European archaeologist imposing rational order through controlling the movements of people of colour who are portrayed as indolent, irrational and chaotic. It is notable that Crawford's praise of Faqir's abilities is always qualified as stemming from an innate intuitive understanding – "the nomad's unnerving intuition"— rather than the same set of skills which Crawford himself developed as a field archaeologist (MS 130.66; MS 91.2). This framing of Faqir's skill is reminiscent of Crawford's description of the Sudanese foreman at Abu Geili in 1913, whose expertise was similarly dismissed as arising not from archaeological experience but from proximity to past people. On several occasions Crawford wrote that despite Faqir's many discoveries, he had no underlying knowledge of or interest in archaeology (e.g., 1955:289; MS Crawford 130.68). In doing so Crawford articulates a sharp distinction between his own practice and Faqir's labour, demonstrating that for all his praise of Faqir he could not consider him an equal.[380]

[380] Quirke (2010) argues that this vision of local archaeologists as "archaeologically illiterate" can be traced back to Flinders Petrie.



Figure 3.35 Faqir at El Kab. Print 17.41.



Figure 3.36 The Bedford truck and rod scales. Print 17.18.

If this chapter started with the famed figures in the history of archaeology and Sudan with whom Crawford was desperate to establish a connection, it ends with those whose often unacknowledged labour made Crawford's work possible. This is fitting, in a chapter whose theme has been that of return; of tracing Crawford's steps through an archive, and understanding how Crawford's affective experience of archival research in the Griffith Institute might have played a role in the formation of his own photographic collection. This chapter is a call for a very different kind of return to the archive. A critical reassessment of the paths that have previously been taken through Crawford's archival assemblage, the way in which these paths have led to the development of Crawford's legacy in the present and an incitement to forge new routes through this material. I develop this theme—in a rather different direction—in the next chapter which returns to Crawford's aerial legacy to offer a reassessment of this legacy.

As demonstrated in Crawford's own photographic work, the past is far more entangled in present practice than we might care to admit. The stories that we construct about the history of archaeology shape its future potential as a discipline. That the legacies of colonialism still haunt archaeology in the present has been highlighted by multiple scholars in recent years (Shepherd 2003; Quirke 2010; Guha 2002, 2012; Çelik 2016; Riggs 2017, 2019; Baird 2011, 2017, 2019; Maloigne 2020; Fitzpatrick 2020). An assemblage approach to the formation of archaeological archives means adopting a mindset that rejects the vision of archaeology as the product of individual pioneering figures and seeks instead to approach any account of archaeological labour with an awareness of the collective production of archaeological knowledge. Taking this perspective makes the erasure of the contributions of figures like Faqir in the formation process of an archive far more apparent, and unlike the language of 'absence' the assemblage approach provides a methodological structure for attempting to recover something of that presence. Recovering histories of archaeologists like Faqir is something like the act of assembling a jigsaw puzzle from the margins; turning to small details contained within photographic images, examining the production of photographic objects, interrogating the process of taking photographs and assembling archives, and looking beyond the boundaries of a single depositional context to a wider range of publications. This was the certainly the case when I attempted to identify Abdelrahman in Section 3.2.2; from the initial mention of his name in Crawford's diary, I was able to find Print 27.27 (Figure 3.15) in the photographic archive. But it was not until these two details could be cross-referenced with mentions in the publications of Crawford's colleagues whom I had identified through his written correspondence that I could with any confidence suggest that they might refer to the same man (Arkell 1953:1; Addison 1953:1). Such an approach is time-consuming and often fruitless, but this too feels fitting given that the construction of time in archaeological photographs has so often acted to erase these aspects of the

history of the discipline it seems only right to give time in return in an attempt to bring these elements to the surface (cf. Hicks and Mallett 2019 on 'giving time'). It is on this topic of return that I turn one last time to Crawford's archival practices surrounding Sudan.

3.5 Return to the Archive

For many years after 1913 Crawford had recurring dreams; in his sleep Sudan was "a strange land lit by a lurid red sunlight" dominated by an enormous river and lit with "a wholly incommunicable glory" (1955:16). He dreamed of travelling aboard a gigantic steam ship, but one that moved over land leaving in its wake a huge furrow in the ground (Crawford 1955:16). But what traces in the sand did Crawford's Sudanese venture leave behind him?

To work with Crawford's photographic archive is to constantly maintain an awareness of the long-drawn-out process of setting down layers of archival material over the course of a lifetime. Photography too is not an instant process but a durational practice. It is in the temporal scale of repeated or temporally extended sequences of actions that meaning becomes apparent—and here I speak of 'meaning' not in the sense of archaeological knowledge that might arise from the archive but in the sense of affect (cf. E. Edwards 2012). Crawford's repeated returns to Sudan—both in imagination and in reality—throughout his life held a profound emotional significance for him. The careful deposition of each archival layer from 1913, then 1950 and again in 1951 was the process of constructing his own identity. If in the previous chapter the rhythm of Crawford's photographic process on a scale of minutes and seconds could reveal his presence as a photographer behind the camera, here it is the persistent presence of Sudan across a far wider assemblage of publishing practices, photographic work, personal collecting and physical travel that speaks to Crawford's deeply personal connection to his subject matter. I carry this awareness of the significance of repeated returns to a familiar location into the next chapter. But here I want to conclude by thinking through one final laying down of archival material and with it one last return to the archives of the Griffith Institute.

In an action mirroring his attempts in 1914 to archive as much of his work as possible in the face of the coming conflict, when Crawford returned from Sudan for the last time in the Spring of 1952, he made one final attempt at cementing a Sudanese legacy for himself. Though in 1914 it was the threat of war which hung over Crawford as a young man, in 1952 as a retiree the question of mortality and his own legacy was likely to have been on Crawford's mind once more. On the inside cover of the handwritten diary he kept during the British Academy Expedition, Crawford wrote a pencil note:

I wish this book to be given to the Griffith Institute, Ashmolean Museum, Oxford. I hope it may be possible for the Institute to make a typed copy of it for the use, outside the Institute, of Peter Shinnie & others. O.G.S. Crawford, 18 April 1952 (MS Crawford 130.1).

The diary never made it to the Griffith Institute but instead made its way –with the rest of Crawford's written papers—to the Weston Library in Oxford. Yet Crawford was successful in depositing the maps and plans he made during the research for *The Fung Kingdom* in the Griffith Institute. In the present day the plans are rolled together, wrapped in brown paper and loosely bound with string. In several places the texture of the paper has captured grains of rust brown dirt, some final microscopic pieces of Sudan brought back to Oxford by Crawford. The reading room in the Griffith Institute is overshadowed by a gigantic reproduction of that famous photograph of Howard Carter peering into the tomb of Tutankhamun, as I work through Crawford's maps and plans I am acutely aware of the irony that despite Crawford's hopes of establishing a field of Sudanese archaeology distinct from Egyptology, one of the most famous episodes in Egyptian archaeology still quite literally overshadows his archive (Figure 3.37).

In Chapter One I argued that the institutional spaces in which we encounter archival records play vital roles in the subsequent interpretation of such materials. And—as I previously noted—Crawford had a very clear vision for the ongoing life of his archive. Along with the plans Crawford left a letter in which he expressed his hopes that the plans might one day be of "historical interest" much like the travelogues he had enjoyed reading, and the sketches he had consulted while preparing *The Fung Kingdom*. The plans, he wrote "are offered as a gift to the Griffith Institute, which seems the best place for them" (Letter from Crawford to the Griffith Institute. 23 December 1954. Unmarked Brown Folder. Griffith Institute, Oxford). In doing so, Crawford took one final step in trying to establish a connection between his own life and those of a previous generation of archaeologists and 'explorers'; physically depositing his own research in the same institutional space that held the archives of the Wellcome excavations at Abu Geili, and the sketches of Linant de Bellefonds whose work he referenced in *The Fung Kingdom,* and whose journey along the course of the Nile had inspired Crawford's proposal for the British Academy Expedition. Much like the positioning of Print 35.10 (Figure 3.7) within the archival box labelled "Members of his Family & Other Associates and Colleagues" acts to establish a sense of community between Crawford and his archaeological mentors, so too does the positioning of this wider tranche of material in close proximity to these other archives work to establish a sense of collegiality between the collections.

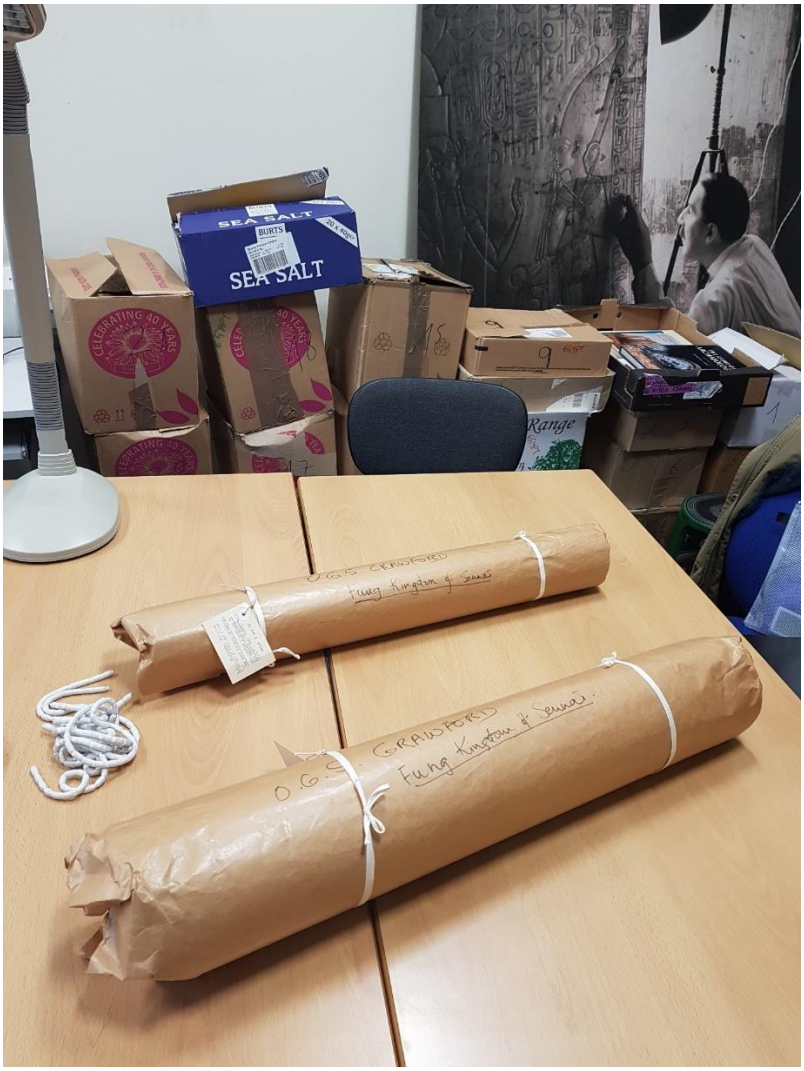


Figure 3.37 Crawford material in the Griffith Institute.

Throughout the previous chapters, a dominant theme has been that of the boundaries of Crawford's photographic archive as a both a conceptual and physical assemblage. In Chapter One this focus was upon the relationship between Crawford's written papers and photographs, and in Chapter Two the collections held at the British Museum, and the tensions between Crawford, Cookson and Brown's photography of the Sutton Hoo excavation enlarged the limits of the archive yet again. Here the pull of the collections held at the Griffith Institute has actively shaped the formation of Crawford's photographic collection at several stages; exposure to this material sparked Crawford's interest in returning Sudan in the 1940s, as part of Crawford's research reproductions of material held by the Griffith Institute were drawn into Crawford's archive, these reproductions in turn inspired Crawford's own journeys through Sudan, which produced a series of photographic responses for Crawford's photographic archive, alongside the maps and plans which were eventually drawn back to the Griffith Institute. Just as Crawford hoped to establish himself within a genealogical canon of

archaeologists, colonial administrators and 'explorers' in Sudan, so too do the 'genealogical' links between these layers of archival material bind together Crawford's archives and the Griffith Institute; once again expanding the boundaries of material that may claim a conceptual unity with Crawford's photographic archive (cf. Riggs 2017).

This is a fitting place to return to the photograph of the sand dune with which I began this chapter (Figure 3.1). While Crawford may have predicted that his footsteps in the sand in 1952 would shortly be obscured by the wind, it is clear that he envisioned a far more enduring fate for his own Sudanese research. Implicit in the note left in his British Academy Expedition diary is the hope that a future generation of researchers might return to the sites he outlined, leaving their own trail of footprints in turn. Hauser notes "in an imagined appraisal of his own work, dating from his bicentenary of 2086, he humorously predicted that in the twenty-first century it would be his book on the Fung Kingdom of Sennar that would be used in all of the universities" (2008:254). *The Fung Kingdom* has not stood Crawford's test of time. Even an initial survey of the dissemination of the book within the University of Oxford demonstrates that Crawford's Sudanese legacy is far overshadowed by his works on British Prehistory and aerial archaeology. Across the Oxford libraries are just four copies of *The Fung Kingdom*; located in the Pitt Rivers Museum, Harris Manchester College Library, the Sackler Library and one copy in stacks outside of the city limits. Within the Sackler library—the main repository for archaeology books across the university and the home of the Griffith Institute—*The Fung Kingdom of Sennar* has only been loaned out four times since the year 2000 (I myself am responsible for two of those loans).[381] In comparison Crawford's most well know publication on aerial archaeology *Wessex from the Air* (1928) is held by the Radcliffe Science Library, the Sackler Library, eight college libraries, with a further two copies held in the stacks.

Yet, Crawford's work in the Middle Nile Region did in fact generate one significant act of return. In early 2006 Drzewiecki, Maliński, and Rączkowski (2008a, 2008b) instituted the 'Fortresses of Sudan: Following O.G.S. Crawford' Project at the Adam Mickiewicz University, Poland. Just as Crawford once sought out the vantage points of Linant de Bellefonds, seeking to stand where he once stood, the project aimed to revisit the sites which Crawford documented during the British Academy Middle Nile Expedition and later published as *Castles and Churches in the Middle Nile Region* (1953b), noting changes in the preservation of the sites since Crawford's work. Though the 'Fortresses of Sudan' project comprised some field survey, a major component of the work was based on the analysis of

[381] Figures provided by Helen Worrell from the Sackler Library on 23/08/2019. Of course, the Oxford microcosm is not a particularly accurate representation of broader trends across UK universities, and there is potential to develop this line of enquiry in the future to gain a truer picture of the distribution of Crawford's publications across university libraries in the UK.

satellite imagery of the sites. In their description of the rationale for the project it is notable that Drzewiecki, Maliński, and Rączkowski cite Crawford's reputation as the "father of aerial archaeology" as a key factor in their decision to incorporate the aerial view (2008a:12). In a chapter that reflects on the relationship between archival research and the 'future trajectories' that emerge out of these archival encounters, examples like this project demonstrate the unruly nature of such encounters; for all Crawford's efforts to establish a new legacy for himself in in the wake of the destruction of the Second World War, the spectre of the aerial continues to haunt the ongoing reception and perception of Crawford's work. It is equally significant that the 'Fortresses of Sudan' project makes no mention of any of the 626 photographs which Crawford took between 1950 and 1952 in Sudan which are currently held in Crawford's photographic archive.

This oversight is symptomatic of the much broader disinterest in Crawford's work in Sudan noted in the introduction to this chapter. This is reflected in the material form of Crawford's photographic archive. Across the five archival boxes and 626 photographs that make up Crawford's work from Sudan in the photographic archive, the material—almost without exception—maintains the numerical order given by Hauser's labelling of the prints in the early 2000s, a strong indication of very minimal interest in this sub-collection of prints in the intervening years. Reflecting on Hauser's framing of the archive as "scarred by history" (2008:x), it is notable that those aspects of the collection to which this description most aptly applies are those related to Crawford's work in Britain and his experiences in the First World War (e.g., Figure 4.6). While those sections of the archive, like the photographs of Sudan, and studies of clouds, trees and flowers which will be discussed in the following chapter, display far fewer signs of disorder resulting from continual use. Though the trope of the dusty archive and 'forgotten' material is generally insulting to the labour of archivists, given the informal management of the Crawford archive in the present—and in the absence of any formal records kept regarding enquires about the Crawford photographic archive—I think it is possible to get one final sense of how little interest this sub-section of the collection has generated by noting the amount of dust that has accumulated on top of each box of the Sudan material (Figure 3.38).[382] This brings me back to my own act of return, a full circle from undisturbed dusty archival boxes, to the traces of Crawford's footsteps in the sand dunes of Sudan being erased by the passing wind.

[382] Kathryn Rudy has led the "Dirty Books Project" inspired by a similar premise to determine the relative popularity of bible passages by documenting accumulations of dirt on each page to locate the most well-thumbed passages. Far from the dogeared and torn edges of the prints in box two, this sub-collection of Sudanese photographs feel fresh, as though they were filed away only yesterday. This, of course, is really a testament to how little they have been perused in the fifty odd years since reaching the Institute.



Figure 3.38 Dust in the Archive.

4 'The Ground developed out of the Sky'

4.1 A Problem of Perspective

This is a chapter of limits; of the divisions between earth and sky, intimacy and distance, legacy and trace. It is a chapter that explores how these limits have been structured in the archive, and attempts to break down these limits. But it is also a chapter about the limits of access. A chapter written in the midst of the Covid-19 pandemic with limited access to the archive, and so fragments, photographs, and anecdotes swirl around like wisps of cloud.[383] I will try and make the pieces fit together beginning with four photographs. The first is a photograph of the sky taken from the ground (Figure 4.1), the second is a photograph of the ground taken from the sky (Figure 4.2). The third is a photograph of ploughed soil taken from the ground in order to illustrate how photographs taken from the air might illuminate what is on the ground (Figure 4.3). The final photograph is not of the ground or sky, though both are present, but of fungi growing upwards out of the ground (Figure 4.4). Four photographs, from four separate archival boxes.[384] The question driving this chapter is simple: how do these photographs fit together? Can these threads point to wider connections throughout Crawford's life and archive? And can these seemingly disparate prints help us speak of Crawford's legacy in new ways? In asking these questions I return to the entwined central problems which I outlined in the introduction; Crawford's aerial legacy has overshadowed the terrestrial photographic work in his archive, to the extent of becoming the framing device through which the whole archive has been understood; while the distance of the aerial view has come to stand for a vision of archaeological practice where "the human realities of small-scale movement on a human pattern are lost" (Johnson 2006: 93; cf. Aldred 2019:199).

[383] My argument in Chapter One about the inherent conceptual unity of Crawford's archival collections was forcibly driven home when access to multiple sections of the archival assemblage became impossible throughout the Covid-19 pandemic.
[384] Prints 49.16, 28.19, 10.41, 23.31.



Figure 4.1 The Sky from the Ground. Print 49.16.



Figure 4.2 The Ground from the Sky. Print 28.19.



Figure 4.3 The Ground. Print 10.41.

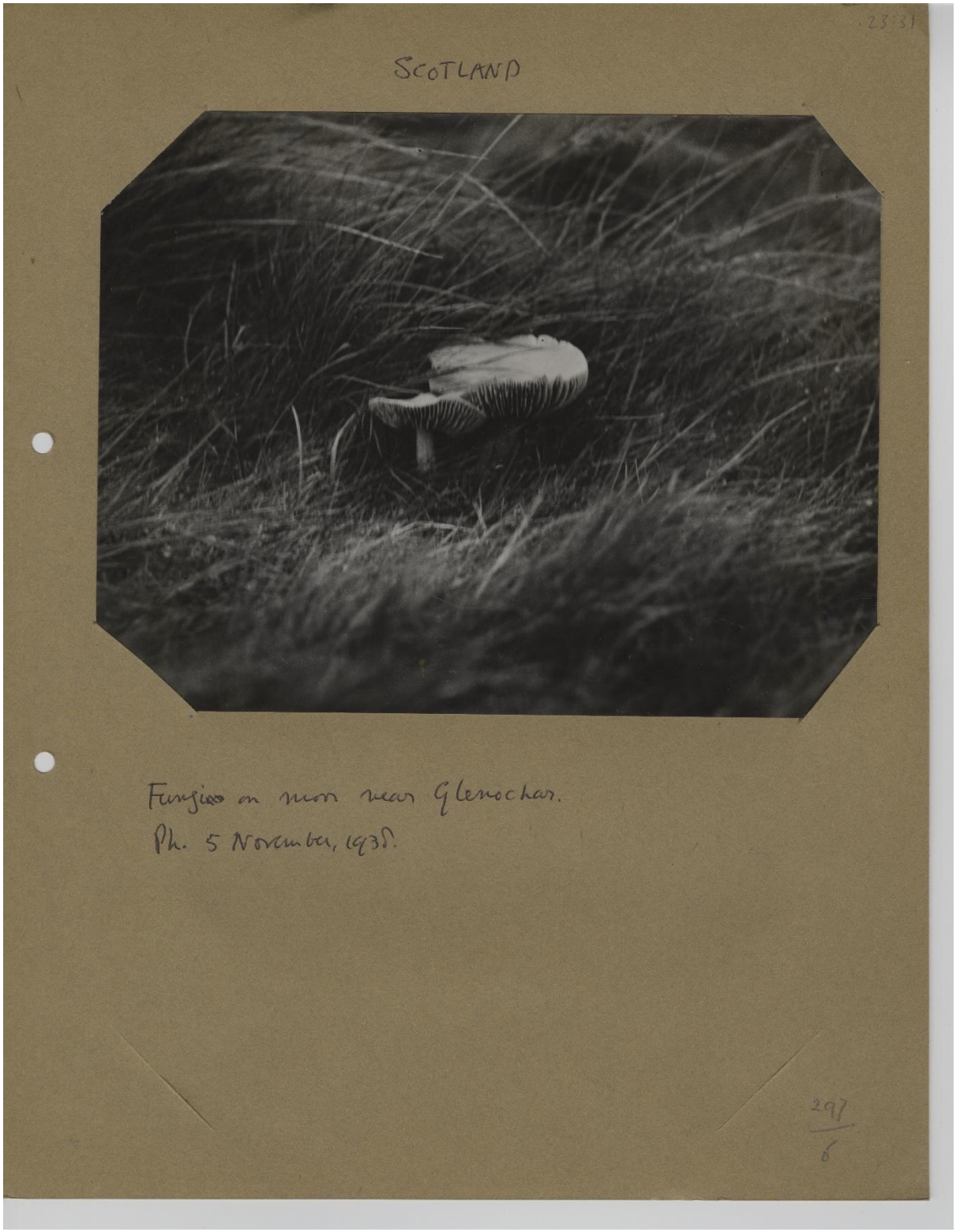


Figure 4.4 Fungi. Print 23.31.

In taking up this topic of Crawford's aerial work, out of necessity I take what has come to be a well-trodden path through a variety of textual and archival references. In composing this chapter, I turned first to Crawford's archives, autobiography and other published works, and I have then endeavoured to note instances where other scholars have picked similar pathways through this material before marking the points where our paths diverge—forming something akin to an archaeology of citations. As I suggested in the previous chapter, Crawford's aerial legacy has been thrust upon him, and here I continue to note incidents that demonstrate Crawford's own unease with this legacy, as well as reflecting on the paths which other scholars have taken through his archives which have led to this perception of his legacy. Moreover, I return to the critiques of the aerial view as distanced, detached and functioning as a broader metaphor for the totalising gaze of scientific modernity, and make the case for an alternative perspective on aerial archaeology, one that is premised on partiality, proximity and intimacy. In turning to terrestrial prints from the archive I deliberately invert the assumption that usually accompanies aerial photography; that photographs taken from the air enable us to better understand the ground beneath our feet. Instead, I argue that it is by following the paths laid out by photographs taken from the ground that we can better understand Crawford's view from the sky, to the extent that the division between the view from the ground and the view from the sky begins to blur.[385]

I am not the only one to attempt to rehabilitate theoretical conceptions of the aerial view. Wickstead and Barber (2012) have roundly rejected the "metaphor of distance" as a helpful conceptualisation of aerial survey, arguing that such arguments rest on the analysis of individual air-photographs and ignore the actual process of conducting aerial survey, which relies upon related sequences of photographs rather than individual images (2012:72).[386] Consequently, Wickstead and Barber argue that "Aerial survey smashes linear perspective, fragments time-space, and places radical doubt at the root of claims to truth" (2012:71). Paul Saint-Amour (2011) has similarly honed in on this ability of aerial mosaics to create multi-temporal fields, arguing that the aerial must also be understood as coming from a subjective and partial perspective. Alternative responses to the stereotype of the aerial view as distanced and detached come from phenomenologically driven studies of the human experience of flying (Raçzkowski 2002; Baines 2005; Brophy 2005; Brophy and Cowley 2005; Amad 2012; Aldred 2019). These studies emphasise the frailty of the pilots and camera

[385] I draw inspiration from Nan Shepherd's description of the Cairngorm mountains in which she argues "One does not look upwards to spectacular peaks but downwards from the peaks to the spectacular chasms" (1977:2). If to understand the mountain one must start with its depths, then to understand the sky, perhaps one must start with feet on the ground.

[386] Though aerial photographers would occasionally take individual shots for publication purposes, these are the exception rather than the rule (Wickstead and Barber 2012:73).

operators, and the human stories behind the production of the aerial view. Though, as Wickstead and Barber (2012) warn, these studies flirt with the older problematic hagiographies of aerial "pioneers". A final set of studies explore the process of interpreting air-photographs. The separation of photo-analyst from both subject matter and camera, has historically been interpreted as intensifying the presumed detachment signified by the aerial view (Wickstead and Barber 2015; cf. Tilley 2017). But as Chielens (2009) demonstrates in his study on aerial photographs of the front lines in the First World War, working with archival air photographs can be a deeply affective experience. By employing techniques of close-looking Chielens was able to chart the steadily rising number of field hospitals and graves as the conflict progressed, inspiring him to make a pilgrimage to the cemeteries. Kirsty Millican (2018) has explored the haptic engagement required to interpret air photographs, as the interpreter is forced to rotate both the photographs and their own body to correctly orient the image (cf. Amad 2012). Millican's work thus moves away from the idea of the viewer of aerial photographs occupying a fixed gods-eye perspective, and interjects a sense of the subjectivity of the interpretation process. These studies demonstrate that the aura of distance and objectivity surrounding the air photographs can be uprooted at every stage of their production, circulation and consumption.

My own approach expands upon these insights as I explore the relationship between Crawford's aerial and ground-based work throughout his lifetime. In doing so I propose further points at which it is possible to trouble the assumed relationship between the aerial and terrestrial view and in doing so draw deeper connections between material spread across the boxes of Crawford's archive. In Sections 4.3 to 4.5, I explore the narrative that is usually given to explain Crawford's initiation into aerial photography during the First World War. Using a single box of photographs from the archive I seek to trouble the divisions between Crawford's aerial and terrestrial experiences in the First World War, and offer an alternative account of this formative time. In Section 4.6, I extend this consideration of an alternative terrestrial legacy for Crawford and examine a cross-section of early influences whose presence can be detected in the way Crawford conducted field archaeology on the ground and argue that these early influences established in Crawford a profound sense of the importance of intimate connections to landscapes. In Section 4.7 I argue that by exploring the points at which sky and ground meet in the archive it is possible to gain new perspectives on both Crawford's aerial and terrestrial practices. Furthermore, I build on the theme of return which I introduced in the previous chapter, and suggest that both Crawford's aerial survey and fieldwork from the ground were reliant upon the intimacy generated by repeated visits to a fieldwork site or landscape. I develop this idea further in Section 4.8 which tackles the division of aerial and terrestrial photographs in the structure of the archive, and make the case that the material order of the archive

leads researchers to overlook connections between Crawford's aerial and terrestrial practice. Throughout this chapter—inspired by the theoretical prompting of the anthropologist Tim Ingold—I propose that attending to the traces of the weather in Crawford's archives provides a key avenue for exploring the interrelationship between ground and sky. However, I begin by briefly outlining the extent of the aerial material that may be found in Crawford's photographic archive in the Institute of Archaeology.

4.2 The Aerial in the Archive

Print 10.20 (Figure 4.5) is the kind of image that comes to mind when one thinks of Crawford's public legacy; a serenely beautiful vision of the southern English countryside like those published to great acclaim in *Wessex from the Air* (1928). But print 10.20 is not a photograph taken by Crawford. Instead, the photograph was taken by Major George W.G. Allen. The print currently occupies Box 10 of the archive, which is labelled "Alington's air photos, others, Allen's air photos". Box 10 is the larger of two coherent sub-collections of air photographs that can be found Crawford's archive in the present. The other, far smaller collection can be found in Box 28 (See Sections 4.3 to 4.5). The hand that wrote the label on Box 10 is not Crawford's, which raises the question of whether this grouping of aerial photography together in the archive in the present reflects one of the archive's later reshufflings rather than Crawford's own structure.[388] But overwhelmingly, none of the 176 air-photographs in Box 10 have any claim to having been taken by Crawford. As Bowden notes, "Crawford must…be credited with some pioneering work in aerial photography, and with driving the subject forward. He did this, however, more by encouraging others and by showing how aerial photographs could be used than by undertaking aerial photography himself" (2001:37).

In fact, traces of air photography are far harder to detect in the archive than might be expected given the weight of Crawford's aerial legacy in the present. Beyond the more cohesive collections of air-photographs in Boxes 10 and 28, individual views from above are scattered almost indiscriminately between boxes. There are, for example, eight aerial photographs showing views over Egypt alongside nine photographs of Chichén Itzá in Box 17, there are six views over Tunisia in Box 16, and a small series of studies over England in Box 3. A handful of aerial prints taken by Alington over Scotland in the 1930s from Box 13 are discussed in Section 4.8. Like Print 10.20, none have any claim to being taken by Crawford. To date I have only identified two prints in the archive (Prints 5.75 & 5.82) that are air-photographs actually taken by Crawford. Outside of the prints themselves, a small number of aerial photographs can be traced in Crawford's negative register; 11 shots are recorded on 9 December 1936 as Crawford flew from Alexandria to London, taken almost

[388] It is notable that air-photographs of Britain are grouped together in one box while air-photographs taken abroad are scattered through the archive.

implausibly, with his Voigtlander medium format camera. Another note, this time dated to 2 August 1938 (Neg. 284/3) records "Ancient fortified site W. of Alexandria, from air", and a five days later at "Jerba"[389] Crawford records a shot of Alington and his plane (nicknamed Angela) at the airstrip (Neg. 285/1). As part of the same trip the pair set a course over Cyprus, and at this point Crawford began adding the letter "A" into his negative register to denote a further 24 photographs taken from the air capturing the regions around Kyrenia (Neg. 285/6 – 288/7).[390] The examples of air photographs taken by Crawford in the archive are decisively not the English landscapes of *Wessex from the Air*.

As a proportion of the approximately 10,000 prints that are extant in the archive today these 37 air photographs taken by Crawford represent a tiny fraction of Crawford's photographic practice. It is vital to recognise that in any survey of Crawford's archive, the material lost in the bombing raid on the Ordnance Survey Offices presents a large gap in evidence of Crawford's activities. The fact that Crawford did not keep a negative register until 1932 creates a similar hurdle in identifying Crawford's aerial or terrestrial activities before this point. Furthermore, it would be an oversight to assume that the prints held in the photographic archive represent the sum of Crawford's extant photographic work. As the oft quoted adage goes "absence of evidence is not evidence of absence". Crawford was not above siphoning off sections of his archive to institutional repositories, notably Historic England holds a significant portion of Crawford's collection of aerial photographs.[391] However, the absence of the aerial in the archive held by the Institute of Archaeology coupled with the limitations on access to external collections during the pandemic presents a unique challenge, the opportunity to turn to the material that is held in Crawford's photographic archive and to use this material to brush against Crawford's aerial legacy in the present. Likewise, it offers the potential for bringing into the spotlight aspects of Crawford's photographic practice that have otherwise been overlooked. I begin this process by turning to Box 28. Labelled "The Great War", the box houses a jumbled mixture of prints; terrestrial photographs taken by Crawford of the front lines and RFC air photographs of First World War trenches are interspersed with studies of Southampton taken between the 1930s and 1950s. The box is so overcrowded that prints towards the top of the pile are wrinkled and torn from repeated efforts to remove and replace the photographs (Figure 4.6). These marks are the material testament to generations of scholarly interest in this particular box of prints, an interest fuelled by the fact that that accounts of Crawford's aerial legacy usually begin with his experiences as an RFC observer in the First World War (e.g., Keiller 1928:v; Daniel 1969:xi; Deuel

[389] Present day Djerba.

[390] The next few rolls of film are listed with scant information and it is unclear if these are also aerial views though by 289/6, Crawford was photographing subjects from the deck of a boat.

[391] Details of which are available online at: https://historicengland.org.uk/images-books/photos/collection/CCC01

1969:15; Bowden 2001:35; cf. Barber 2015).[392] The same can be said of Crawford's written papers at the Weston Library, as those sections of the archive that cover Crawford's time with the RFC are most frequently requested (Colin Harris, Pers. Comm). I argue that the overlapping aerial and terrestrial material in this box of prints is not coincidental but speaks to Crawford's personal experience of war. And, as I shall demonstrate in later sections of this chapter, it is Crawford's photographic practice on the ground during the First World War that holds key clues for understanding his archaeological photography.



Figure 4.5 Standlake photographed by George Allen. Print 10.20.

[392] Though Barber, and to a lesser degree Bowden, note that watching Wellcomes' experiments with Box-Kites in Sudan might have been an alternative inspiration (Bowden 2001:31; Barber 2011:130).



Figure 4.6 The worn edges of Print 28.1.

4.3 The War from the Ground

The First World War is not only personally significant in the trajectory of Crawford's life and work, but is generally regarded as marking the origins of aerial archaeology (Bourgeois and Stichelbaut 2009:3).[393] The First World War also marks the beginning of the long-standing association between the air-photograph and destructive power. Amad draws attention to an article published in *Scientific American* in 1917, which describes the camera in the sky as "a deadly instrument…many times deadlier that its equivalent weight of high explosive" (Amad 2012:69). Brophy has made a convincing case that the language of aerial photography is drawn directly from the military with its reference to "sorties, campaigns, reconnaissance, mission[s], shooting" and "target[s]" (2005:45). More poignantly Barber notes that accounts of the First World War tend to be polarised between two "defining images"; "the aerial dogfight and the muddy stalemate of trench warfare" (2011:83). Working-class soldiers experienced up-close the visceral horrors of trench warfare, while their

[393] See Wickstead and Barber (2012) for an alternative history of the origins of aerial survey.

upper-class commanders viewed the war through aerial photographs and maps of the front lines (Saunders 2009). It was this division of perspectives Virilo (1984) argued which began the "derealization" of war (cf. Hauser 2008:31,48). The distance between ground and sky, between camera operator, general and front-line private, and upper-and-lower class was vast enough to "sanitise" tactical decision making (Saunders 2009:28). In the novel *Slaughterhouse Five* it is this aerial distance that results in the firebombing of Dresden and the slaughter of civilians in the Second World War; "Those who approved it were neither wicked nor cruel, though it may well be that they were too remote from the harsh realities of war to understand fully the appalling destructive power of aerial bombardment" (Vonnegut 1991:154). The perception of the distancing effect of the aerial view is only heightened by the prevalence of aerial photographs of the conflict, and the relative scarcity of uncensored views from the ground, due to a ban on terrestrial photography by non-authorised personnel issued by the War Office in December 1914 (Nicholson and Mills 2017:205; cf. P. Fox 2018:310).

While my purpose in this chapter is not to undermine these very valid criticisms of the role aerial images played in projects of annihilation, I do offer Crawford's own experience and photographic practice as a means of bridging some of these divides. As Crawford's experience demonstrates, those who went on to take aerial views over the front lines may well have experienced warfare from the ground as well. Pilots and observers could not live indefinitely in the skies. Though the camera might mechanically register the horror of no-man's land, the operator behind the camera was certainly not so removed. Moreover, the straightforward division between the view from the ground and the view from the sky was not so clearly demarcated. It seems necessary to revisit the oft told narrative of Crawford's formative time during the First World War to draw out an alternative sequence of events that elucidates his photographic practice more broadly. It was during the First World War that Crawford's hitherto amateur interest in maps and photography began to offer professional opportunities. Encouraged by his mentors Harold and Carlie Peake, Crawford enlisted early, joining the London Scottish Regiment. It was at this time that Crawford began to develop the knack of being "asked for"; leveraging personal connections to engineer postings which he found more fulfilling; a tactic he later used to great success in gaining his post at the Ordnance Survey (Crawford 1955:115).[394] A loose family connection led to a commission in the Third Army Maps Department of the War Office (Crawford 1955:114; cf. Hauser 2008:29). There Crawford was responsible for arranging the printing and distribution of maps, and for taking propaganda

[394] For the influence of the Peakes on Crawford see Hauser 2008; Wickstead 2017, 2019.

photographs and panoramic views of the front lines.[395] The restrictions placed on photographing war from the ground are evident in the majority of prints in Box 28. In the prints men in stiffly starched uniforms watch as artillery guns fire. Soldiers salute as medals are awarded, and commanding officers awkwardly shuffle together for formal portraits. On one occasion to his great excitement Crawford was summoned to photograph Lord Herbert Kitchener, though Kitchener refused to be photographed, in his autobiography Crawford bemoaned the lost opportunity for "what would have been a fine souvenir" (1955:116).

His panoramic survey of the front line was to prove more rewarding. The task, Crawford said, gave him an intimate knowledge of the French countryside, documenting the forty or so miles between Gommecourt and Vimy Ridge in "exactly one hundred photographs" (1955:116: cf. Hauser 2008:32).[396] While taking a photograph is often described as an instantaneous process, standing with camera and tripod in the front lines exposed to enemy fire must have made those few seconds feel like eternities. The process of making a panorama image took time; carefully studying the landscape to select vantage points and then proceeding to take "anything up to a dozen or more exposures of several seconds each" which would later be assembled into a single image (Crawford 1955:116). As a photographic technique, the panorama works in much the same way as the aerial mosaic; stitching together spatially and temporally dispersed exposures into a single image that seems to promise an extended range of vision. Print 28.49 preserves a finished assemblage, showing the wreckage of the train station at Arras (Figure 4.7 &

Figure 4.8). Though the illusion is spoiled somewhat by the concertina folding which has the bizarre effect of separating out the individual prints into their constituent parts, making each component an individually visible. Print 28.10 shows a selection of these freshly developed prints hanging out to dry on a washing line near St Pol (Figure 4.9). The panoramic technique would stick with Crawford, years later in Cyprus he would take a series of photographs listed in his negative register as "intended for panorama" (Neg. 238/6-8), and in Sudan in the 1950s Crawford turned to linked sequences of images in his attempt to grasp the scale of the landscape (Figure 3.24). This is not the only example of Crawford's photographic practice blurring the boundaries between aerial and terrestrial perspectives and techniques, as demonstrated in the pairing of prints 28.175 and 28.176, the latter of which is an oblique aerial view of the ground surrounding Acheux railway and the former a

[395] Crawford also observed air photographs sent back from intelligence gathering flights, "It was most exciting to scan each batch [of air-photographs] as they came in and see how the German trenches really ran" (Crawford 1955:117)

[396] "I…got to know the country intimately" (Crawford 1955:116).

photograph of Crawford's vantage point, a chimney standing tall in the junkyard near the railway (Figure 4.10 & Figure 4.11). Crawford took this pairing on 28th June 1916, as he waited for the beginning of the engagement that would become the Battle of the Somme (Crawford 1955:120; cf. Hauser 2008:33). [397] Like his ongoing interest in the panoramic technique Crawford was to repeat this deliberate juxtaposition of aerial and terrestrial view in his photographic practice for years to come.

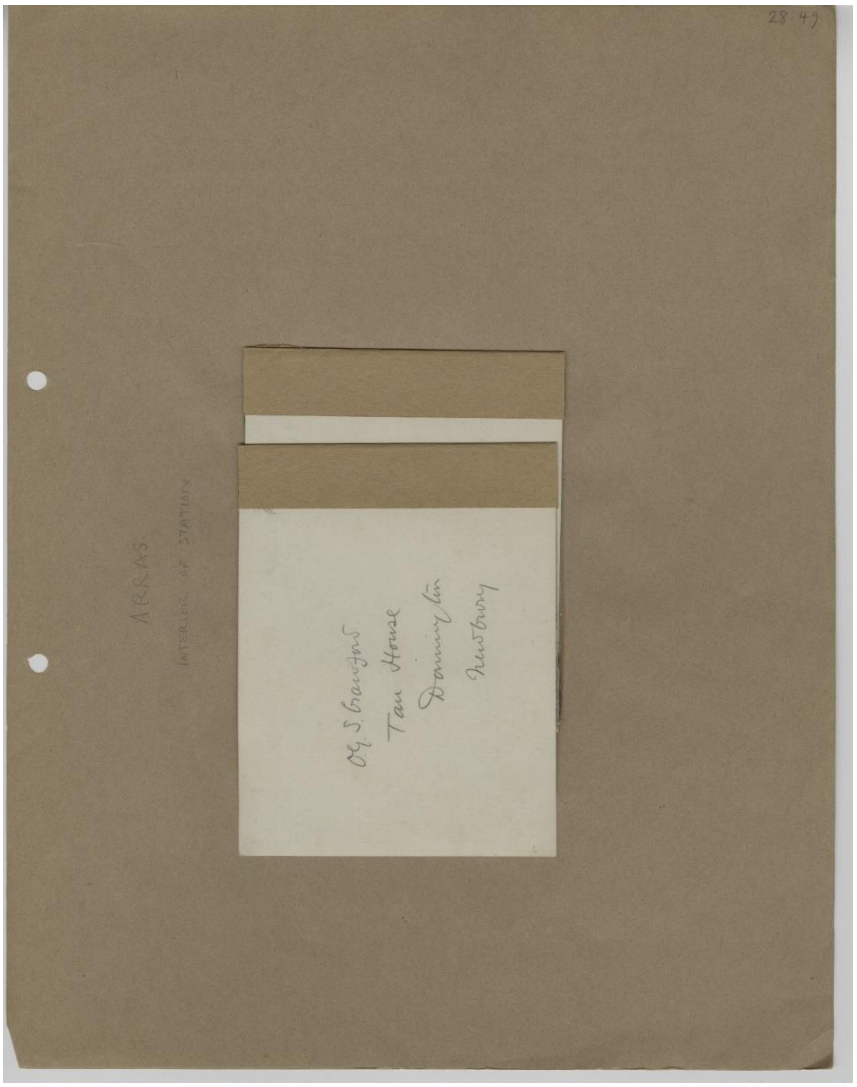


Figure 4.7 Folded Panorama. Print 28.49.

[397] The opening of the battle was postponed until 1st July (Crawford 1955:120).



Figure 4.8 Panorama of Arras Station. Print 28.49.



Figure 4.9 Prints hanging out to dry. Print 28.10.



Figure 4.10 The View from Above. Print 28.176.



Figure 4.11 Crawford's Vantage Point. Print 28.175.

Photography was a task Crawford took seriously despite the personal danger it put him in. On one occasion Crawford recalled being seated in a trench during a bombardment and on a whim shifting his position to a different corner, only to watch in horror as the new occupant of his place was hit in the head by shrapnel moments later (Crawford 1955:112). On another his camera suffered a direct hit from a sniper's bullet (1955:116). Crawford credited his survival to the use of small periscope—gifted to him by Henry Wellcome—if he had adopted his normal approach of peeking over the trench, the bullet would have found his head (Letter from Crawford to Wellcome. 30 November 1915.WA/HMM/CO/Ear/311. Wellcome Collection; Hauser 2008:32). A photograph of the ruined camera was sent to Wellcome in thanks, while another was displayed in his autobiography, "almost as if it were a surrogate of himself" (Hauser 2008:32).[400] It is equally worthy of comment that the other two photographs Crawford chose to illustrate his experience of the war in *Said and Done* were not aerial views but a full-page spread of panoramas, and a photograph—taken years later—of the building in which he was confined as a prisoner of war (Figure 4.12 & Figure 4.12) thus further confounding the usual framing of the significance of the First World War for Crawford in aerial terms.[402]

Roaming the front lines with a camera, Crawford could at least avoid the "exquisite" discomfort of waiting to be shelled; the sensation of being "in one of those dreams where one tries to run and cannot" (1955:112-113).[403] Though run he did, as evidenced in Print 28.162 (Figure 4.13) in which blurred stalks of vegetation echo the tail end of a plume of smoke and soil rising skyward (cf. Hauser 2008:33). The blast marked the start of the Battle of the Somme. The detonation captured by Crawford was so strong that it carried chalky dust 4000 feet into the air, coating the ground like snow, it was through this haze that British troops were ordered to begin a walking advance upon the entrenched German lines (Davis 2011:35). More than 30,000 men would die within the hour (Davis 2011:31). Crawford's annotation on the mount of Print 28.162—and throughout Box 28—is notably brief, though the mixture of pencil and pen used within the box and the oscillation between neatly printed locations and scrawled details suggests that Crawford returned to these prints over and over again, perhaps searching for the right mixture of words to make sense of what he had experienced. Print 28.162 simply notes "OGSC in full retreat pauses to get one more snap- too bad that all these

[400] See Plate 6 of *Said and Done*, and also Prints 28.91 and 28.92 in the photographic archive.
[402] Crawford crashed behind enemy lines in February 1918, and spent the remainder of the war at Landshut and then at Holzminden. He undertook a "sentimental pilgrimage" to Landshut in July 1953 to take this photograph (Crawford 1955:146; cf. Footnote 1 on page 140). In his autobiography he speaks almost warmly of his time as a prisoner of war "I have never had the same sense of one-ness with my fellows in any other surroundings" (1955:142)
[403] Though on occasion it did mean that Crawford was stopped on suspicion of being a German spy (Crawford 1955:132).

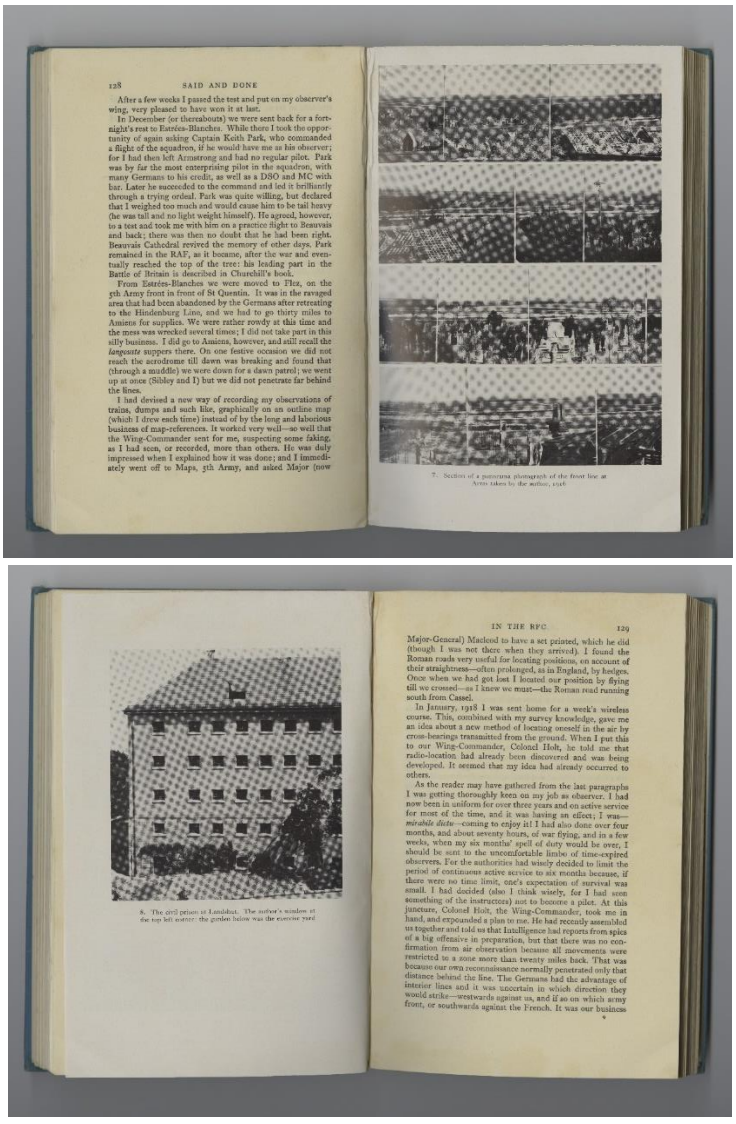
were on defective plates".[404] Like Crawford's well-documented refusal to include personal details in his autobiography (Stoddart and Malone 2002:915; Hauser 2008: xiv), his reticence here to elaborate on such a historic moment continues the wider pattern of resistance—or inability—to speak of such things. There is something significant too about the poor focus of Print 28.162 that seems to speak of conflicting urges; a desire to bear witness warring with the self-preservationist instinct to look away.

Print 28.162 is not the only example in Box 28 which resists the polished propaganda expected of an official war photographer. Print 28.6 (Figure 4.14) shows a narrow trench, no more than two or three feet wide. In the foreground soldiers slump or sleep, helmets obscuring their faces. Some lie face down—collapsed due to exhaustion or injury—it is almost impossible to tell if they are still alive. Others cluster in the background rendered anonymous by the depth of field. Instead, Crawford seems to focus the camera on an improbable clump of tiny white flowers overhanging the edge of the trench, perhaps he could not bear to look anywhere else. In another, Crawford captures the pile of rubble that was once the church at Fricourt (Figure 4.15). The cost of taking such photographs were not just symbolised by Crawford's shattered camera and uncharacteristic brevity of annotations, but were inscribed into his body as evident in a third print—this time positioned in Box 35—showing a gaunt and dead-eyed Crawford towards the end of the conflict (Figure 4.16).

As the First World War ravaged bodies and landscapes, Crawford turned his eyes to the skies and found a strange kind of beauty there, which he captured in two prints entitled "Clouds from a hill above Boulogne during war" (Figure 4.17). In the prints, the tortured ground fades away into a dark smear in the foreground. Looking up to the sky was a familiar perspective for Crawford. For far before Crawford ever set foot near an aeroplane, he dreamed of the skies. As a child he was rarely allowed out of the house after dark, but on one rare occasion when he and his aunts were stranded after catching the wrong train, Crawford caught a glimpse of "my first sight of the stars which filled me with a wonder I can still recall (MS Crawford 107:11). After some consultation with a local vicar, he spent £5 on a 3-inch telescope so as to better "admire the glory of heaven" (MS Crawford 107.12). Crawford's interest in astronomy was encouraged by his grandmother, who sent the young Crawford star charts from Switzerland (MS Crawford 107:12). Crawford even toyed with the idea of becoming an astronomer; "It was one of my first loves, but unfortunately it was too far above me to come to anything" he joked (1955:309). Hints of this early passion creep through into the archive in

[404] Crawford would commonly blame his equipment or the ambient lighting conditions whenever a photograph did not come out well. In his autobiography he added that the morning was a misty one and that he was forced to shoot into the sun (1955:120). Further examples of this can be found in Section 4.4 of this chapter.

the form of newspaper cuttings like Print 49.2 (Figure 4.18) and 21.114 (Figure 4.19).[405] The telescope would eventually accompany Crawford to his posting to the front lines in the First World War, where it was eventually installed in an observation post set up in a church (Ms Crawford 107:12). Perhaps part of the lure of the sky was in escaping, if only for a moment, the horrors on the ground.[406]



128 SAID AND DONE

After a few weeks I passed the test and put on my observer's wing, very pleased to have won it at last.

In December (or thereabouts) we were sent back for a fortnight's rest to Estrées-Blanches. While there I took the opportunity of again asking Captain Keith Park, who commanded a flight of the squadron, if he would have me as his observer; for I had then left Armstrong and had no regular pilot. Park was by far the most enterprising pilot in the squadron, with many Germans to his credit, as well as a DSO and MC with bar. Later he succeeded to the command and led it brilliantly through a trying ordeal. Park was quite willing, but declared that I weighed too much and would cause him to be tail heavy (he was tall and no light weight himself). He agreed, however, to a test and took me with him on a practice flight to Beauvais and back; there was then no doubt that he had been right. Beauvais Cathedral revived the memory of other days. Park remained in the RAF, as it became, after the war and eventually reached the top of the tree: his leading part in the Battle of Britain is described in Churchill's book.

From Estrées-Blanches we were moved to Thiz, on the 5th Army front in front of St Quentin. It was in the ravaged area that had been abandoned by the Germans after retreating to the Hindenburg Line, and we had to go thirty miles to Amiens for supplies. We were rather rowdy at this time and the mess was wrecked several times; I did not take part in this silly business. I did go to Amiens, however, and still recall the *langouste* suppers there. On one festive occasion we did not reach the aerodrome till dawn was breaking and found that (through a muddle) we were down for a dawn patrol; we went up at once (Sibley and I) but we did not penetrate far behind the lines.

I had devised a new way of recording my observations of trains, dumps and such like, graphically on an outline map (which I drew each time) instead of by the long and laborious business of map-references. It worked very well—so well that the Wing-Commander sent for me, suspecting some faking, as I had seen, or recorded, more than others. He was duly impressed when I explained how it was done; and I immediately went off to Maps, 5th Army, and asked Major [now

7. Section of a panorama photograph of the front line at Arras taken by the author, 1916

8. The civil prison at Landshut. The author's window at the top left corner: the garden below was the exercise yard

IN THE RFC 129

Major-General] Macleod to have a set printed, which he did (though I was not there when they arrived). I found the Roman roads very useful for locating positions, on account of their straightness—often prolonged, as in England, by hedges. Once when we had got lost I located our position by flying till we crossed—as I knew we must—the Roman road running south from Cassel.

In January, 1918 I was sent home for a week's wireless course. This, combined with my survey knowledge, gave me an idea about a new method of locating oneself in the air by cross-bearings transmitted from the ground. When I put this to our Wing-Commander, Colonel Holt, he told me that radio-location had already been discovered and was being developed. It seemed that my idea had already occurred to others.

As the reader may have gathered from the last paragraphs I was getting thoroughly keen on my job as observer. I had now been in uniform for over three years and on active service for most of the time, and it was having an effect; I was—*mirabile dictu*—coming to enjoy it! I had also done over four months, and about seventy hours, of war flying, and in a few weeks, when my six months' spell of duty would be over, I should be sent to the uncomfortable limbo of time-expired observers. For the authorities had wisely decided to limit the period of continuous active service to six months because, if there were no time limit, one's expectation of survival was small. I had decided (also I think wisely, for I had seen something of the instructors) not to become a pilot. At this juncture, Colonel Holt, the Wing-Commander, took me in hand, and expounded a plan to me. He had recently assembled us together and told us that Intelligence had reports from spies of a big offensive in preparation, but that there was no confirmation from air observation because all movements were restricted to a zone more than twenty miles back. That was because our own reconnaissance normally penetrated only that distance behind the line. The Germans had the advantage of interior lines and it was uncertain in which direction they would strike—westwards against us, and if so on which army front, or southwards against the French. It was our business

Figure 4.12 The First World War in Said and Done.

[405] Crawford returned to the subject towards the end of his life (Hauser 2008:26).

[406] See also Isherwood (2014) on escaping to the skies; "The first sentence of Billy Bishop's *Winged Warfare* displays with stark simplicity the feelings of many: 'It was the mud, I think, that made me take to flying'" (Isherwood 2014:7).



Figure 4.13 Explosion marking the start of the Battle of the Somme. Print 28.162.



Figure 4.14 The View from the Trenches. Print 28.6.



Figure 4.15 The ruins of Fricourt Church. Print 28.158.



Figure 4.16 Crawford towards the end of the War. Print 35.3.



Figure 4.17 Looking to the Sky. Print 28.48.

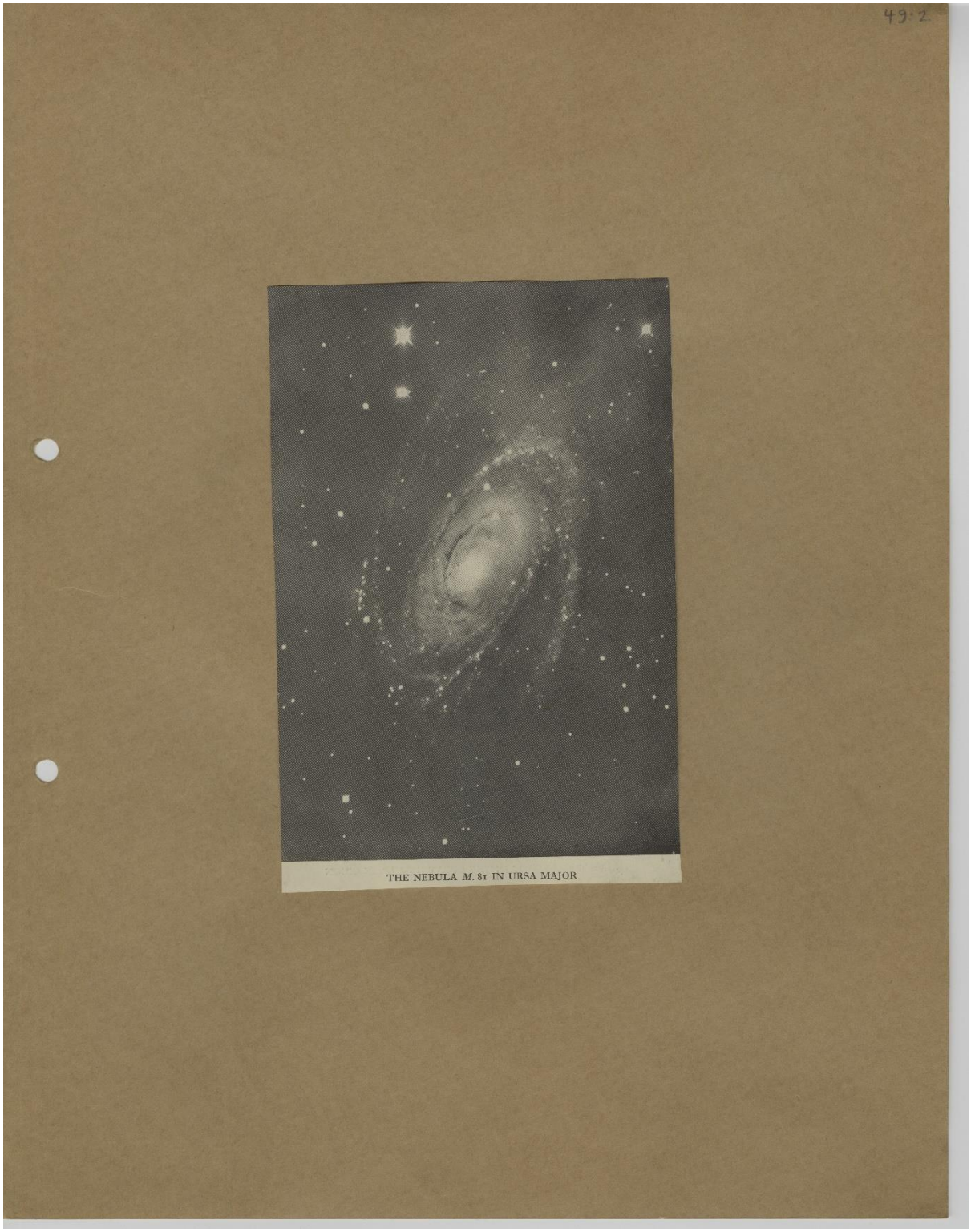


Figure 4.18 Nebula. Print 49.2.

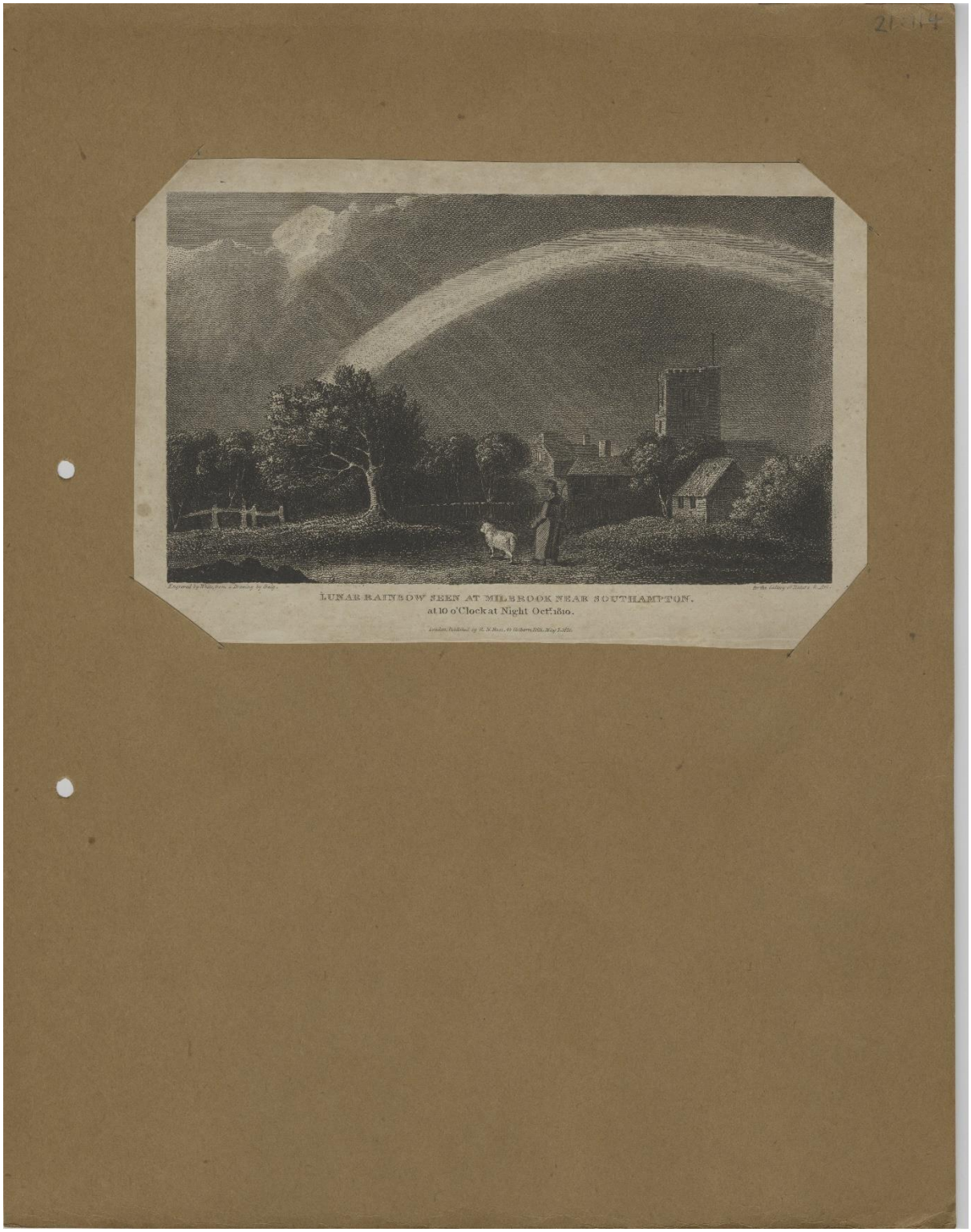


Figure 4.19 Lunar Rainbow. Print 21.114.

4.4 Flying with the RFC: Watching the Weather

Crawford's initial attempt at joining the RFC in 1915 had been rebuffed; he was too heavy and his inability to ride a horse marked him out from the upper-class social background that dominated the ranks (Crawford 1955:117; cf. Hauser 2008:29). But in 1917 Crawford's technique of being 'asked for' worked to his advantage again; leveraging his knowledge of the front lines gained from producing his panoramic photographic survey Crawford engineered an invitation to join the RFC as an observer (Crawford 1955:123). As Crawford's time in the RFC has already been comprehensively discussed—not least in the work of Hauser (2007, 2008)—in this section I rather seek to draw out a previously unremarked upon aspect of his aerial experience; Crawford's relationship with the weather and the traces that this has left throughout his photographic archive.

A diary of Crawford's time in the RFC between 20th September-15th December 1917 held by the Bodleian Library gives glimpses into Crawford's life in the skies with the No.48 Squadron (MS Crawford 126).[407] The diary takes the form of a typescript, which seems to have been selectively transcribed from a flying logbook.[408] An accompanying letter to the Bodleian library written by Crawford reinforces the impression that the account contained within the typescript is likely to have been self-censored; Crawford expresses his concerns that some "irresponsible journalist" might publish from it and outlines the steps he hopes the library will take to prevent this from happening (MSS Crawford 126.1). Crawford's concern seems to be a product of the time at which he made the donation to the Bodleian. The diary was initially accessioned in 1925 and given the catalogue number MS Eng. Hist.d.116, before being incorporated into the broader catalogue of Crawford's written papers (as MS Crawford 126) following his later bequest in the 1950s. This initial accession date sits squarely in the middle of two periods—1919-1921 and 1928-1931—identified by Isherwood as marking a boom in the publication of RFC memoirs (2014:2). These memoirs, Isherwood argues, are notable for their deliberate adoption of a tone of "heroism…and high morale" that differentiates such accounts from the perspectives of trench warfare (2014:1,6).[409] With the publication of *Wessex from the Air* (1928) imminent, and with Crawford's reputation for aerial archaeology already

[407] Crawford initially joined the 23rd Squadron in the early months of 1917, but was shot down in March 1917 (See Section 4.5) before re-joining the RFC with the No.48 squadron in September 1917, whereupon he and his pilot were forced to make an emergency landing and were subsequently captured in February 1917.

[408] Several of the details noted by Crawford in each entry seem to accord with the column headings of RFC flight logs described by Hillier (2020:218). But the typescript itself does not match with physical descriptions of such logs. Moreover, Crawford's practise of writing up a formal account of an experience, rather than depositing his original notes can also be demonstrated in the material relating to his work on Sudan held by the Bodleian.

[409] An example of this tone can be found in Crawford's diary entry for October 2nd 1917: "When we finally turned homeward, we went nose down at tremendous speed. I like that, and still more the steep rapid glide with the engine off" (MS Crawford 126.10). This tone is markedly similar to the one which Crawford would later adopt in his attempts to frame himself as a pioneering 'explorer' of Sudan.

established following his 1923 lecture on Celtic field systems at the Royal Geographical Society, Crawford was clearly aware that his diary was likely to generate immediate interest.[410]

As with many of Crawford's autobiographical writings, and in keeping with the narrative tone identified by Isherwood, the diary is frequently silent on personal details of Crawford's experiences. Crawford tracks his flying hours in a separate column to the right of the page, and reports on meeting commanding officers, and letters sent home to Uribe, Carlie Peak and "R.L.T".[411]

In *Said and Done* Crawford noted that his archaeological training came in useful in these early flights; Roman roads were particularly useful for situating himself in the landscape (Crawford 1955:129; cf. Hauser 2008:49).[412] Other tactics from field archaeology proved just as effective. In a perhaps predictable act of rebellion, Crawford eschewed the recommended practice of recording features in the landscape with map references, preferring instead to draw directly onto a traced outline map (MS Crawford 126.20; cf. Hauser 2008:49; Barber 2015:37). He experimented with a number of colour coded combinations, red or black for railways, blue for bodies of water and green for forests (MS Crawford 126.20). At other times he cut up maps into strips, pasting them on new sheets of paper to allow himself space for annotations, or mounted them on a stiff aluminium board (Crawford 1955:130; MS Crawford 126.20). The efficiency of this technique was initially met with some suspicion, but Crawford persevered eventually convincing his superiors (Crawford 1955:128; MS Crawford 126.20).[413]

Underlying almost every diary entry is the constant presence of the weather. Fair weather, clear skies or even bright moonlight could indicate forthcoming bombing or reconnaissance raids, or open up the pilots and observers to vulnerability from ground fire from "archies" –anti-aircraft guns (MS Crawford 126.7). In winter strato-cumulus clouds blanketed the sky, turning the light a dull grey that obscured everything above them. The presence of "that horrible murk" was highly dangerous; making it impossible for pilots to keep their planes level, obstructing views of the approaching enemy planes and frustrating attempts to photograph the front lines (Crawford 1955:131; MS Crawford 126.6).[414] The cold at altitude could be deadly; at 15,000ft and above the air temperature could be as low as minus 35° (Hillier 2020:ix), causing Crawford's machine gun to seize up at

[410] See Section 4.7 for further details.
[411] R.L. Thompson, another member of the Peake's inner circle.
[412] "During the 1914-18 war I saw several from the air; I remember two in particular, one near Estrées-Blanches, and the other (which enabled me to locate my position when temporarily lost) running due south from Cassel" (Crawford 1953:208).
[413] Amad notes the irony that despite the characterisation of the aerial view as a form of hyper-realism, the practices of aerial survey are often heavily dependent on such interpretive aids (2012:82).
[414] It was while attempting to fly in such conditions that Crawford and his pilot were forced to make an emergency landing in 1917, leading to Crawford being held as prisoner of war (Crawford 1955:130).

inopportune moments, or leaving his fingers too cold to operate it (Crawford 1955:127; cf. Hauser 2008:50). The creeping cold could gradually strip away the ability to focus, and in the skies, even a moment of lost concentration could be deadly (Hillier 2020).

Despite these very real dangers posed by the weather the RFC did not monitor weather forecasts in any official capacity until the late Spring of 1915; "such strides had already been made in flying that the flying officers at that time used to say that machines could fly in any weather and that forecasts were superfluous" (Cave 1922:7). Rather, as one historian of meteorology notes, pilots would simply "look out of the window to see if the weather was fit for flying, then trust to luck" (Crewe 2009:25). As his RFC diary indicates, Crawford became accustomed to constantly monitoring the weather and this habit was to last a lifetime. Once some basic meteorological knowledge was gained Crawford wrote "one can always fall back on weather-observation in whatever part of the world one may find oneself" (1955:309). To some extent this ongoing interest in the weather was a practical one; Crawford's brand of 'Dirt Archaeology' was a fundamentally outdoor pursuit tempered by the prevailing weather conditions as evidenced in correspondence exchanged with the draftsman Frank Addison on the challenges of dealing with "floppy" maps in prevailing winds (MS Crawford 90.21-22), Crawford's annotations on photographic prints about the joys of walking in glorious sunshine, or a letter sent to Crawford by R.H. Hodgkin, referencing Crawford "preparing to bicycle back to Southampton clothed largely in newspaper" ahead of a coming storm (MS Crawford 10.71).[415] The ability to make amateur weather forecasts could form part of essential preparations for any sustained period of fieldwork.

Yet in Crawford's photographic practice his interest in cloud formations and weather patterns veers towards the romantic. One of the very earliest photographs recorded in Crawford's negative register is Print 49.40; a photograph of a sunset taken from the window of a train in the Northern Caucasus.[416] Sweeping strands of cirrus clouds stretch in bands across the print, an effect emphasised by the blurred lines of what looks to be strands of a wired fence. I can only guess at the blaze of colours that must have illuminated this sky, and the pleasure that such a sunset must have inspired in the traveller. Silvering bloom at the corners of the print suggest that the photograph was handled frequently, oils from the fingers seeping into the print creating their own cloud like patterns. Print 49.6 (Figure 4.20) replicates the theme, a glorious sunrise over Mount Vesuvius with the volcano itself brooding in the morning haze of clouds. A further hint that Crawford may have blended the more serious study of weather forecasting with an eye for the aesthetic lies in Print 49.3

[415] A few years later in *Archaeology in the Field* Crawford would advise his readers that the trick to handling a map in the wind and rain was to protect it "by bending down over it and covering it with your body" (1953:63).
[416] Negative number 24/1.

(Figure 4.21), a plate from Sir Napier Shaw's *The Drama of Weather* (1936) a volume which fused practical tips on making accurate weather predictions with appeals to the visual entertainment of weather watching.[417]

Crawford was not alone in juggling these interests as is revealed in a series of correspondence exchanged with the archaeologist and meteorologist C.J.P. Cave across the 1930s and 1940s.[418] Cave's involvement is highlighted here as an example of the intersections between histories of archaeology and meteorology; in 1922—one year before Crawford debuted his analysis of air-photographs of 'Celtic' field systems near Winchester—Cave was commissioning air-photographs of Old Winchester Hill from his local RAF squadron (Crawford and Keiller 1928:5). Cave had served as President of the Royal Meteorological Society for the years 1913-1915 (Crewe 2009:3), and in 1926 published a small volume entitled *Clouds and Weather Phenomena for Artists and Lovers of Nature*. As one anonymous reviewer put it, the small volume "is addressed…to those for whom the clouds, the sunset, the rainbow and the mist are things to be studied for their beauty rather than their scientific interest" (E—G—B 1926:346). The stunning beauty of clouds, Cave believed had only begun to be truly appreciated towards the end of the eighteenth century, as poets like William Wordsworth began to write "true descriptions" of the skies (Cave 1917:61). Crawford too, seems to have shared an appreciation of Wordsworth's perspective, as evidenced in his thinly veiled citation of Wordsworth in *Wessex from the Air* (Crawford and Keiller 1928:7; cf. Hauser 2008:80).[419] One of the most striking testaments to a friendship that emerged out of these shared interests manifests in Print 49.14 (Figure 4.22), taken by Crawford at Cave's home in August 1932, which shows a bolt of lightning streaking through a pitch-black sky, its trailing white tendrils like the jagged lines of the trenches in the front lines (cf. Hauser 2008:151).[420] In the same archival box is a second photograph of lightning this time taken by Cave in July 1936 (Figure 4.23). One can almost imagine the two men watching storms with cameras in hand, competing to catch a lightning strike on film. For all its deadly seriousness during the war, watching the weather could be a companionable and entertaining pastime.

---

[417] It is of interest Crawford chose to archive scenes from this artistic volume as opposed to reproducing plates from the two incredibly popular reference publications which Shaw produced for military and RFC audiences *The Weather Map* (1916) and *The Meteorological Glossary* (1918).

[418] It was Cave who consoled Crawford in October 1942 after his precious Rolleiflex camera was stolen; "I would have felt quite worried to think of you without a camera!" he sent to Crawford on a postcard of a church roof boss (MS Crawford 7.80).

[419] "On a June morning before breakfast the greater part of Salisbury Plain is seen to be covered with the banks of abandoned Celtic Fields, but afterwards they 'fade into the common light of day'" (Crawford and Keiller 1928:7). The citation is from Wordworth's *Ode: Intimations of Immortality.*

[420] It is notable that Hauser identifies the "visual correspondence" between the lightning strike and the view of the trenches from the air but doesn't explore the association between Crawford and Cave (Hauser 2008:147).

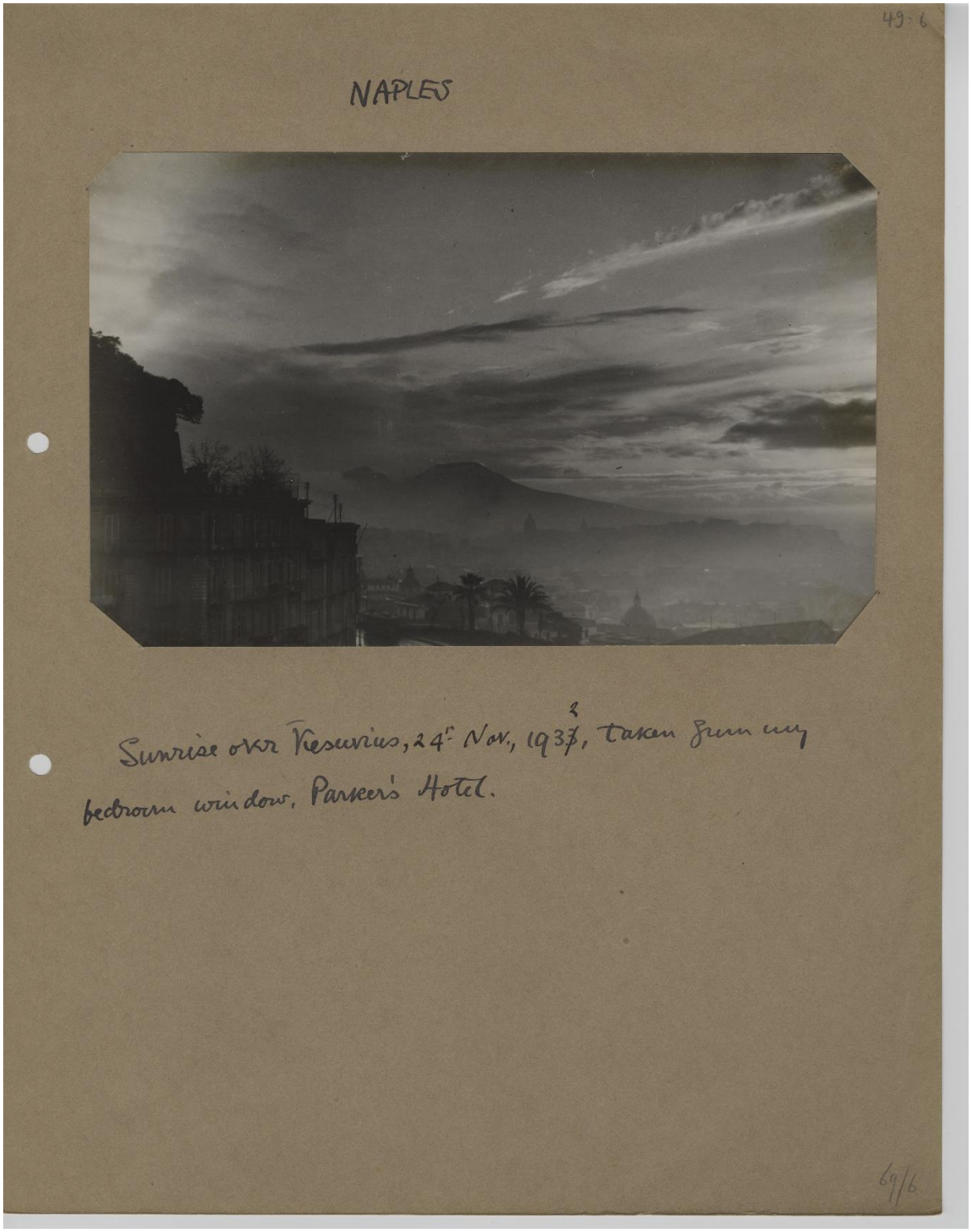


Figure 4.20 Sunrise over Vesuvius. Print 49.6.



Figure 4.21 The Drama of the Weather. Print 49.3.

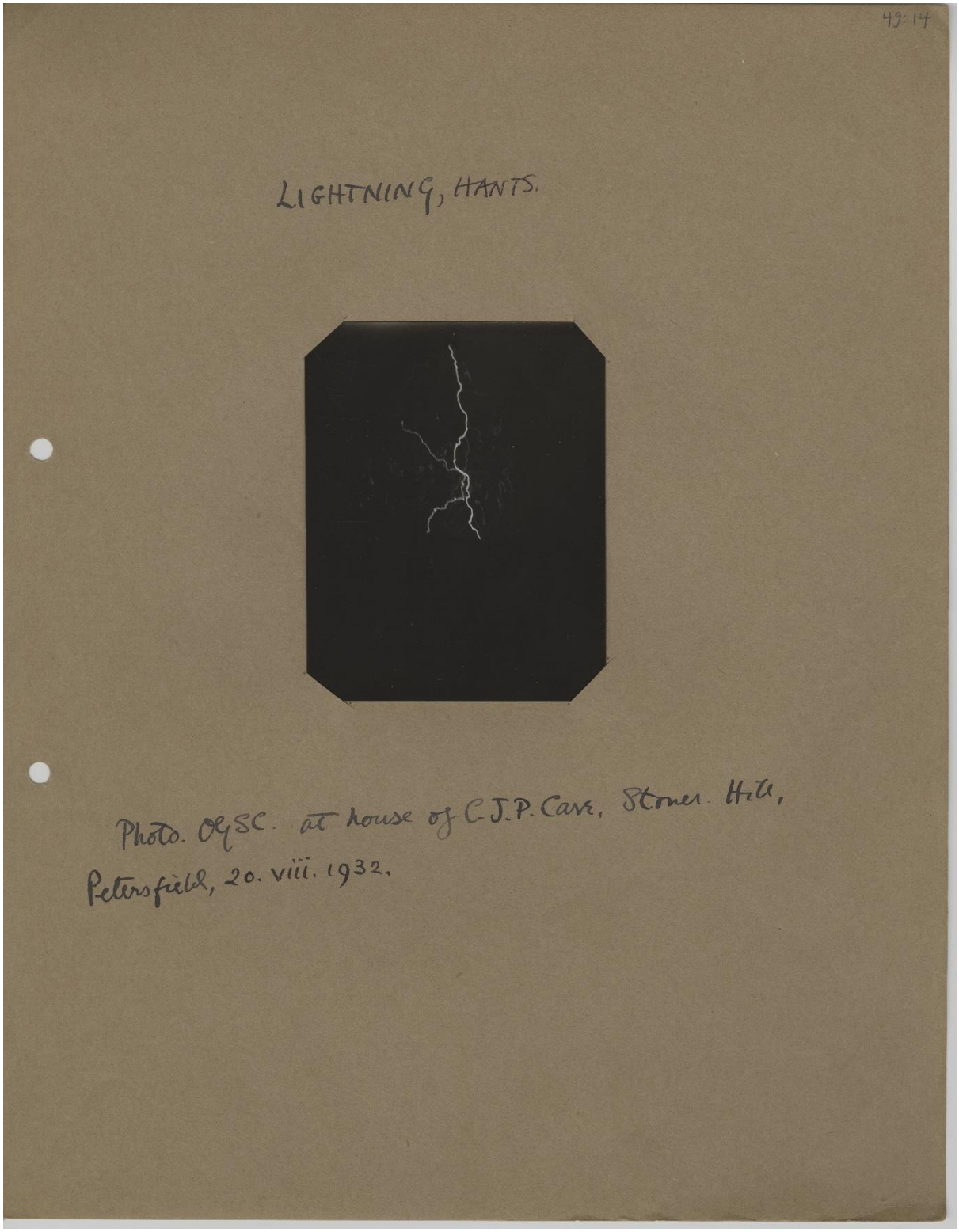


Figure 4.22 Lightning Strike. Print 49.14.



Figure 4.23 Lightning Strike by C.J.P. Cave. Print 49.16.

In the autumn of 1915 Cave was part of the skeleton staff of the Meteorological Section of the Royal Engineers tasked with introducing meteorological reports to the RFC (Crewe 2009:1). Much of this early work revolved around the observation and typological classification of cloud formations, and the measurement of the height and movements of the clouds which could then be used to calculate wind speed (Crewe 2002:17). Night-flying, and flights in poor visibility were particularly dependent on accurate assessments of wind speed and direction, and early tests of meteorological predictions of this nature were run out of the airfields near Stonehenge in England (Cave 1922:9). The foundation of a Meteorological Section had implications for ground-based artillery as well, as precise information of wind speed and direction was used to calculate opportune times for shelling the enemy (Cave 1922:7). The introduction of poison gas to the conflict in 1915 also provided compelling reasons to take at least a general interest in basic predictions of wind direction (Gratton 2012:84). By the end of the First World War the military officially began to compile sets of reference photographs of clouds taken in flight (Gratton 2012:84).

And so, while RFC officers were nervously standing on the ground looking up to the skies each morning to assess the threat of danger, meteorologists were taking to the skies to look down upon the formation of clouds.[421] In the sky meteorologists, pilots and observers alike found strange new illusory landscapes. In an article written for the Royal Meteorological Society, pilot and amateur meteorologist Lieutenant C.K.M. Douglas wrote:

> Stratus viewed from above resembles…a gently undulating country; sometimes there are parallel furrows which in the distance present the appearance of a ploughed field covered with snow. On the other hand, cumulus clouds give the appearance of a wild and rocky country" (1917:227).

In the same year Cave argued that the manipulation of photography could enhance this optical illusion further as the structure of the cirro-cumulus cloud

> bears an extraordinary likeness to the ripple-marks in sand; a photograph of sand ripples printed as a negative almost exactly simulates wave clouds, and it is sometimes possible to photograph wave clouds which, printed as a negative, look almost exactly like waves in water (1917:67).

Crawford too marvelled at this reversal of perspectives. On 27th September 1917 —one of the first flights recorded in his diary Crawford noted— "The clouds which were high above us when we left

[421] The First World War provided many meteorologists their first real opportunity to observe clouds in such "close quarters" (Anon 1917:227).

the ground appeared like a ground mist from up top—mist lay in waves just like the sea" (MS Crawford 126.4). Most strikingly an account written on the 3rd October reads:

> There were two layers [of cloud] one at about 3000' and the other at about 14000'… the view of the lower layer from above was very fine – it looked like a vast snowfield, and the shadow of our machine was visible upon it, surrounded by a small circle of rainbow light…It took us some time getting through it…Gradually the ground developed out of it like the plate of a photograph being developed (MS Crawford 126.10-11; cf. Hauser 2008:49-50).[422]

These accounts of cloud formations and experiences of the weather add a very different dimension to Crawford's experience of flying with the RFC. Evident in this attention to the weather is a confusion of perspectives; his experience in the RFC was not simply about viewing the ground from the sky but also entailed Crawford's attention being drawn upwards to the sky from the ground, or downwards from the sky to the clouds which appeared as illusory landscapes. Similarly, though the aerial view has been predominately written about from the perspective of the totalising power of the aerial gaze, aeroplanes were still "fragile machines" exposed to the dangers of extreme cold at altitude and of poor visibility (Galvin 2018:339), and their passengers even more so. Observers were limited to a maximum of six months continuous active duty, as very few survived a period of service longer than this (Crawford 1955:129; cf. Hauser 2008:50). Far from the promised clarity of the totalising gaze of the aerial view, pilots and observers struggled with visibility and perspective, struggles that only intensified in the face of a hyper-awareness of their own mortality.[423]

Just as the clouds hid enemy planes from sight, the edited diary held by the Bodleian obscures many of Crawford's emotional responses to war, but amidst prosaic musing on the beauty of the clouds and stiff-upper-lip stoicism hints of the emotional trauma of the experience creep through. A terse note left on 17th October reports "A perfectly terrible day - everything going wrong. Made a mess of my photographs of the Passchendaele Canal—glorious view—too fed up to describe" (MS Crawford 126.17). This was not an isolated incident, the following day Crawford reports making 64 exposures, with only six coming back satisfactorily, a fact he blamed on the developing process (MS Crawford 126.17). In his autobiography many years later Crawford wrote frankly about his hatred of taking aerial photographs, "which we all, myself included, loathed" (1955:126). These glimpses of Crawford struggling with a task which has become so foundational to his present-day legacy confounds the established hagiographic myth of his time in the RFC. Far worse than struggles with the camera, are

[422] C.J.P. Cave wrote of a similar experience "Suddenly the aeroplane emerges on the upper side of the cloud and a truly marvellous prospect is unfolded, as far as the eye can see great billows of cloud extend…they look as though one could get out and walk about on top of them" (1917:69).
[423] Cf. Hauser "Aerial photography made terrain legible" (2008:36).

the truly harrowing accounts of life as an observer. In a diary entry for 29th September, Crawford recounts that one plane, along with its pilot and observer are missing, a note added to the margin reports "They were never heard of again" (MS Crawford 126.7). The same night an enemy bombing raid hit Dunkirk, killing several people and setting a large fire, Crawford wrote "I dreamt about it last night…a weird and gruesome business" (MS Crawford 126.8). Most tellingly, between 13th and 20th November Crawford wrote nothing at all, reeling from the shock of the deaths of four of his fellows (MS Crawford 126.24; Cf. Hauser 2008:50). The tragedy had occurred—Crawford wrote days later—because the men had been caught out when the setting sun combined with a hazy ground fog confused them, if they had been better acquainted with the topography of the landscape and with the challenges posed by the weather perhaps the deaths could have been avoided (MS Crawford 126.25).

4.5 Returning to Ground

On 6th March 1917 Crawford's plane was shot down by enemy Fokkers. Crawford described the moments following the attack:

> We were then over the Hindenburg Line south of Cambrai and had to decide quickly what course to take, for we had no engine and were losing height rapidly…Out to the west I saw the reflection of the low sunlight in the distant shell-holes of the Somme front…. Escape south-eastwards was impossible and westwards undesirable; the decision lay with me, and I knew the front well. If we glided northwards we might just reach our lines…I knew Adinfer wood was our landmark (1955:124-125).

Aerial views of the landscape they glided over are preserved in Box 28. Though the prints are mounted with Crawford's usual precision, they have no accompanying annotations to speak of, bar a single note in pencil commenting on the cropping of one image. Spread out through Box 28, arranged in no obvious sequence, it is only upon closer inspection the oblique views overlap with each other, creating the semblance of an aerial mosaic (Figure 4.24). In Print 28.19, the unmistakeable dark stain of Adnifer wood rises out of the background (Figure 4.25) a landmark, not only to Crawford as he craned over the side of the plane seeking a safe landing, but to me as a researcher, a point which I too could use to orient myself in trying to understand why this set of images were preserved in the archive. Crawford's flight in March 1917 was only his second flight from his posting to the 23rd Squadron at Baisieux. His later work as an observer detailed in MS Crawford 126 was done with the No.48 Squadron based some 85km away at Dunkirk (Crawford 1955:126). The landscape depicted in these prints, was one that Crawford had only flown over once before, and so despite Crawford being unforthcoming in the annotations of the prints, the likelihood of these photographs being retained as a memento of this personal event is strikingly high. In the previous chapter I noted Crawford's collecting of photographs that held historic significance or acted

as personal mementoes of his association with famous persons, and here it is clear that even aerial photographs, so often characterised as embodying themes of emotional detachment could become saturated with personal significance through their association with historic events. Nor is this an isolated example, Bowden describes an aerial photograph of parchmarks at Verulamium annotated by Crawford as follows:

This mosaic was at the Ordnance Office during the Blitz of Nov. 30th Dec. 1st, when a great part of the buildings was destroyed by fire & high explosive bombs. The mosaic was in the photographic department & … was slightly damaged by water. It is thus doubly associated with historic events, apart from its intrinsic historic interest & may for this reason acquire an added interest in years to come. O. G. S. Crawford. Nursling. 26th April 1942. (NMR OS PF 10/AO978; cited in Bowden 2001:35)

Fox (2019) has argued that RFC pilots and Observers often kept aerial photographs as a way of constructing private and individual recollections of war whilst also taking on a trophy like status, used to demonstrate the collector's membership of a highly skilled and selective in-group signalling lives of adventure and danger. Perhaps—much like Crawford's extended silence following the deaths of his RFC fellows and his aborted attempts to annotate the photograph of the Battle of the Somme—the photographs were a way of paying testament to an experience that was for a long time unspeakable. But aerial photographs were not Crawford's only souvenir of the experience.



Figure 4.24 Spatial relationships of the aerial photographs in Box 28. Photograph by the author.



Figure 4.25 Adnifer Wood. Print 28.19.

On 6th March 1917 luck was on Crawford's side, he and his pilot evaded enemy lines and survived the crash landing, though both men were injured. Crawford had taken a bullet; a sensation he described as being hit with "a huge sledge-hammer" which left a "gory mess" of his right foot (1955:124-125). The bullet had run across the course of his instep, breaking every bone with the exception of his big toe (1955:125; cf. Hauser 2008:38). As Crawford stared at his ruined foot, his thoughts were not focused on the skies and the terrifying plummet from a little over 14,000 feet, but rather on "wondering if it meant the end of my walking days" (1955:125).[424] He sternly admonished the attending doctor "he was on no account to cut my foot off" (1955:125). Amputation was not necessary. But Crawford's foot did not set straight, leaving a bony protrusion across his sole and for the rest of his life his right shoe would always wear down more quickly. For many years following his injury, he kept a scrap of the boot he had been wearing when he was shot (Crawford 1955:125).[425] More striking than his lucky escape, is that Crawford chalked his survival up not to the totalising perspective of the aerial view but to his role in the Maps department; and the knowledge gained from his intimate and detailed panoramic studies of the front lines (1955:125).

4.6 Learning to Walk

I return to a now familiar photograph, the one with which I began this thesis (Figure 4.26; cf. Figure 1.1). By now, the familiarity is also heightened by the similarity of this print to those discussed in Chapters Two and Three. In Chapter Two, Crawford's feet (Figure 2.1) raised the question of the bodily relationships between Crawford, his camera the trench and his fellow archaeologists, and in Chapter Three, his feet (Figure 3.9) brought to the fore the durational references in his photographs and Crawford's attempts to gain proximity to historic figures. Crawford's feet once again hold my interest, as a pivot from which we can reassess the relationship between the aerial and terrestrial. I leave the sky—and with it all notion of Crawford's reputation in the present—behind and begin to draw out an alternative legacy for Crawford; one that takes as its central vantage point not the supposed distance of the aerial gaze, but the intimacy of feet placed on the ground. Barber has previously argued that understanding Crawford's aerial work "requires rather less attention to cropmark formation processes, cameras and aeroplanes, and rather more to geography, anthropology, folklore and place-name studies" though Barber does not fully elaborate on this (2015:33). Building on Barber's prompt I explore a cross-section of early influences upon Crawford, arguing that these early mentors conditioned in Crawford approaches to archaeological fieldwork

[424] This was the first of three occasions that Crawford was involved in a crash landing while serving in the RFC, See Crawford 1955:127, 132 for details of the other two incidents.
[425] He also kept a bullet from the second time he was shot down in 1917 (Crawford 1955:127).

which were grounded in tactile and sensory engagements with the material remains of the past. Secondly, developing the notion of return which I introduced in the previous chapter, I argue that much like the familiarity with the terrain which Crawford used to his advantage in the First World War, each of these early influences convinced Crawford that the only way to truly know a landscape was devote extended periods of time to walking its surfaces. Here intimacy developed out of a form of localism, a perspective not unlike that of the antiquarians whom Crawford so publicly denounced (cf. Stout 2008).

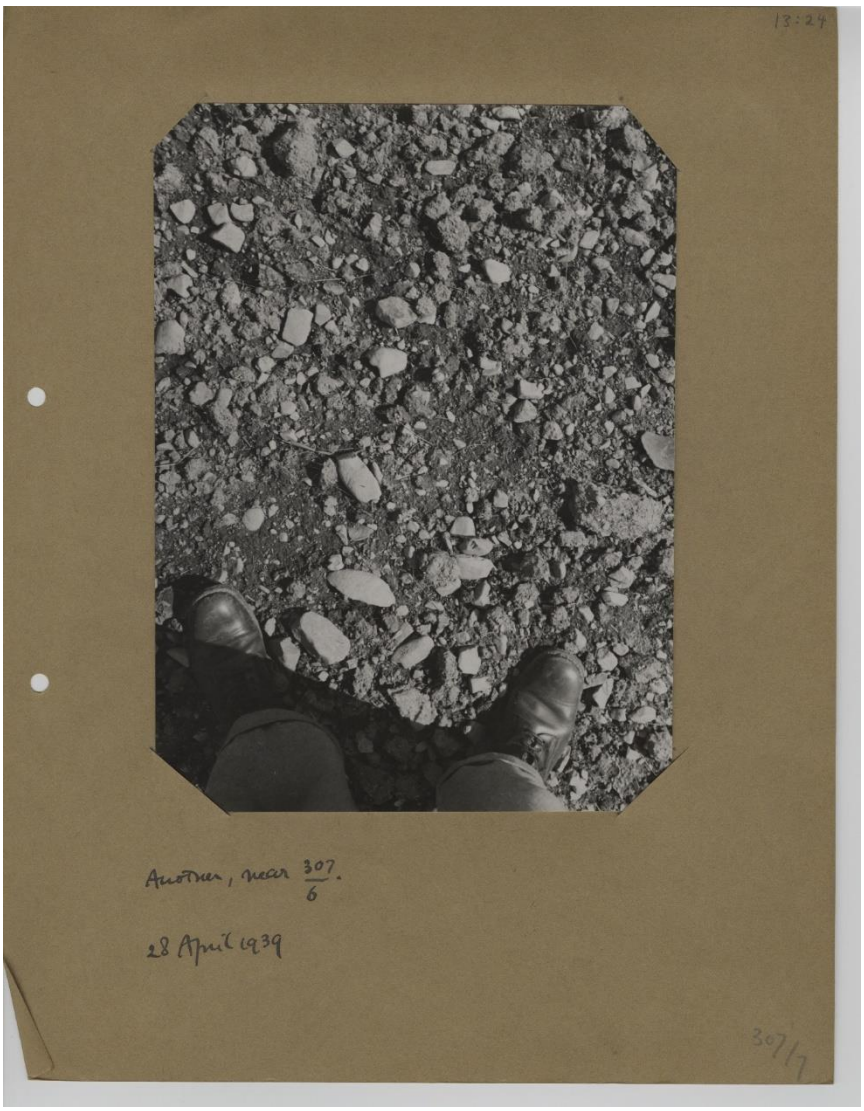


Figure 4.26 Crawford's Feet. Print 13.24.

Accounts of Crawford's early exposure to field archaeology have been well-documented (Crawford 1953,1955; Bowden 2001; Van Tilberg 2002; Hauser 2007, 2008; Barber 2015, 2016; Wickstead 2017, 2019). Indeed, part of my purpose in covering so much shared material in this section is to register my surprise and frustration that in the face of these shared and well-cited sources the narrative of Crawford's legacy as characterised by a distanced and detached aerial perspective still persists. Though the above accounts explore Crawford's terrestrial fieldwork they do so from perspectives that are ultimately interested in technologies of vision like mapping and aerial archaeology, and Crawford's position in relation to developing archaeological theory—in doing so framing Crawford's experiences in ways that play up metaphors of seeing the bigger picture. My explicit focus on the role of intimacy in Crawford's photographic and fieldwork practice as an alternative framing device substantially differs from these accounts and is deeply rooted in my own engagement with Crawford's photographic archive. That being said it should be noted that the incidents discussed in this section took place long before Crawford adopted the systematic recording of his photography in a negative register, nor do prints from this period remain in Crawford's archive, posing something of a methodological challenge. I draw on a broader assemblage of sources from which it is possible to infer Crawford's fieldwork practice in these early years, and cross reference these inferences with later examples of his photography as examples of the continuity of his practice.

In March 1917 Crawford was sent home to recover from being shot down, feeling something of an anomaly; "observers in the RFC in this state were rare—they were usually killed outright" (Crawford 1955:126). He spent his recovery at Heligan near St Austell in Cornwall. Crawford was no stranger to seeking solace in the countryside. His hated schooldays at Marlborough college—famously referred to as "years of misery"—meant that much of his extra-curricular time as a schoolboy was occupied in participating in solo long distance runs across the Wiltshire countryside and visiting gothic churches with his aunts (Crawford 1955:24-27; cf. Hauser 2008:4). It was with the encouragement of his schoolmaster F.B. Malim that Crawford purchased a one-inch map of Marlborough, which "fortunately extended as far eastwards as my home county" (MS Crawford 107.26;cf. Barber 2015:40).[426] In a draft of an article for the Newbury District Field Club, Crawford noted that the map "though a cartographical atrocity, marked antiquities in intriguing old English letters that aroused curiosity by their strangeness" (MSS Crawford 101.35: cf. Hauser 2008:6) and he roamed the borders

[426] Years later Malim wrote to Crawford to thank him for his kindly reminiscences, "I am …touched and humbled by tokens of gratitude and affection from my former victims" (MS Crawford 107.149).

of Wiltshire and Hampshire following the promise of ruins and hillforts (Crawford 1955:30, MS Crawford 107.27).

1908—Crawford wrote—marked the "beginning of my archaeological career" ushered in by the "important and decisive" meeting with Carlie and Harold Peake (MS Crawford 107.39). It was the Peakes who encouraged Crawford to abandon the "Greats" course as an undergraduate in favour of taking a diploma in geography (1955:44; cf. Bowden 2001:30; Hauser 2008:9; Barber 2015:40; Wickstead 2019). There was a tactility to geography that resonated with Crawford; he felt happier "in the new environment of maps and things of this world" than in the dreary philosophical debates that bogged down the Greats course (1955:45; cf. Hauser 2008:9). Under the watchful eye of the geographer A.J. Herbertson and the anthropologist Henry Balfour at the Pitt Rivers Museum Crawford began to develop the idea of setting prehistoric archaeology "against the background of geographical environment" (1955:45).[427] And on the Geography diploma Crawford found for the first time in his life kindred spirits like R.W. Winkworth "A GREAT WALKER AND BEER DRINKER [sic]" who introduced Crawford to the idea of long-distance walking (MS Crawford 107.52).

Writing of his experiences in the First World War, Crawford reflected that he was only able to cope with many of the gruelling marches on account of this earlier training (Crawford 1995:111). Walking was not just physical exercise but a mental challenge, a means of conditioning his understanding of the landscape. At the urging of the Peakes, Crawford spent hours in the Bodleian library transcribing Saxon bounds from the *Cartularium Saxonicum* and the *Codex Diplomaticus* (1955:71).[428] These "word-maps" as Macfarlane calls them (2012:5) scribe out the shape of a landscape; tracing field boundaries through the dips and troughs of town and countryside.[429] But movements of past people in the landscape were not just recorded in written charters, Crawford would learn, but were inscribed into the land itself. It was not sufficient to simply read about these traces of the past, or study the landscape on a map, one had to study the ground for oneself (Hauser 2008:14). The "chief evidence" of prehistoric man, a small book entitled *Neolithic Dewponds and Cattleways* informed its readers, "is to be found in the great earthworks he constructed, and the implements he formed out

[427] Though exploring the influence which anthropology had on Crawford would require a thesis unto itself, the influence of the discipline cannot go unremarked. Crawford attended the founding meeting of the Oxford University Anthropological Society on 28th January 1909 at Exeter College and was a very active member; it was to this audience that Crawford first presented his own work on distribution maps (Crawford 1955:48). The lines between anthropology and archaeology were far less defined in those days, and in his own writings Crawford often emphasised the relationship between the two, most prominently in *Archaeology in the Field* (1953).

[428] These hours spent painstakingly transcribing notes manifest in a series of later articles e.g., Crawford 1925, 1938c.

[429] Examples of these literary perambulations can be found transcribed by Herbert Chitty in the *Proceedings of the Hampshire Field Club* (1921).

of flint" (1905: v; cf. Hauser 2008:6; Barber 2015:41).[430] The ghostly echo of these lines can be detected in Crawford's first monograph *Man and His Past*;

> One can learn more about a vanished race by handling the things their hands have made…by walking along the roads which have grown under their tread; by climbing the grassy slopes of their abandoned earthworks; or resting in the shadow of their mighty buildings; one can learn more in this intimate way than by reading all the books that have ever been written (1921:19).

The authors of *Neolithic Dewponds and Cattleways*—Arthur and George Hubbard—envisioned people in the prehistoric south of England living among a chain of raised hillforts running from the Downs and the Chiltern Hills to the Quantocks and the Mendips joined together by trails forged by the repeated migrations of cattle and people which wove their way through the landscape.[431] The chalk and clay that made up these high ridges would absorb the footfalls of those who passed over it, gradually wearing down through the dark topsoil to form hollow white veins threading the countryside. Crawford and fellow acolytes from the Peakes' inner-circle set to walking these pathways in the Southern counties, which they jokingly referred to as "pilgrimages" (Wickstead 2019:46; Hauser 2008:9). It was one of Harold Peake's theories that the Lydeway, a road running through Devizes in Wiltshire towards Aust, was built over the route of one of these old tracks, and Crawford was dispatched to spend three days walking 40 miles along its length to determine if there was any truth in the theory (Crawford 1955:58). Around the same time that Crawford was exploring the Lydeway, Robert Hippisley Cox, set out to study the chalk ridges of the Downs (Hippisley Cox 1914) while the poet Edward Thomas walked the Ickneild Way (Thomas 1916).

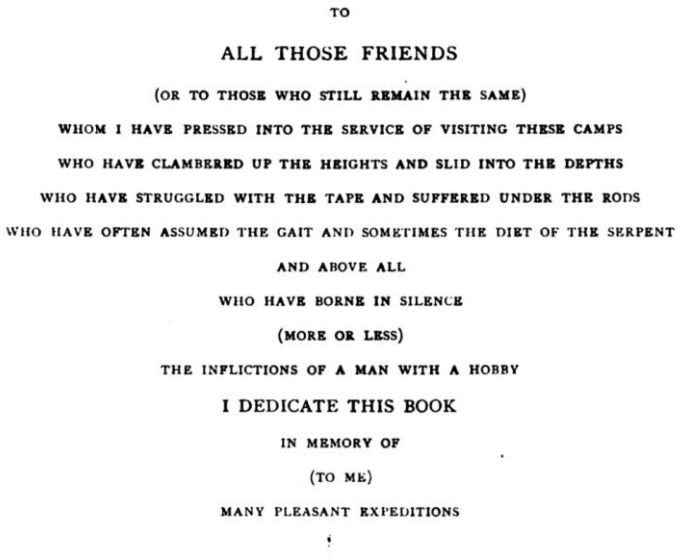
In 1910 Crawford was introduced to John Peere Williams-Freeman (Crawford 1955:64, cf. Bowden 2001:30; Barber 2015:38). For the past four years, Williams-Freeman had been conducting a survey of earthworks and hillforts which was eventually published as *An Introduction to Field Archaeology as Illustrated by Hampshire* (1915). The book, Crawford noted, was the first to coin the term "field archaeology"; a play on the phrase "field naturalist" which was used to distinguish those who studied living plants and animals in their natural environment rather than working with dead specimens in a museum (1953:36; cf. Hauser 2008:69; Barber 2011:131). In the opening lines of his manuscript Williams-Freeman made this distinction clear; "Field archaeology is no dry science for the study or the museum. It is an outdoor occupation" (1915:xix).[432] The field archaeologist should

[430] Hauser doesn't seem to have made the connection to Crawford's writing in *Man and His Past* (1921), only noting that the book instilled a sense of the importance of fieldwork (2008:6).

[431] For debate on the purpose of hillforts around this time see Williams-Freeman 1915,1932; Huntingford 1934).

[432] In outlining his methodology for field-archaeology, Williams-Freeman describes travelling to sites with a tracing of an Ordnance survey map and marking directly onto this tracing "such additions and corrections as

be prepared to suffer for their craft, Williams-Freeman suggested in a series of tongue-in-cheek descriptions of his explorations (Figure 4.27)(cf. Wickstead 2019:46). The "worst abomination" for the field archaeologist were modes of transport which whisked a person through the countryside affording only passing glimpse of archaeological features (Williams-Freeman 1915:xxi).[433] The slower rhythms of walking approximated the "prehistoric method" of travel and could be used to position the archaeologist in sympathy with past people (1915:xx). Crawford wholeheartedly agreed; on foot or by bike "it is easy to dismount and go and look at something one has seen from the road" whereas travelling by car made it impossible to make these kinds of detours and thus acquire the same kind of "intimate knowledge of the topography" (1955:226).[434]



TO

ALL THOSE FRIENDS

(OR TO THOSE WHO STILL REMAIN THE SAME)

WHOM I HAVE PRESSED INTO THE SERVICE OF VISITING THESE CAMPS

WHO HAVE CLAMBERED UP THE HEIGHTS AND SLID INTO THE DEPTHS

WHO HAVE STRUGGLED WITH THE TAPE AND SUFFERED UNDER THE RODS

WHO HAVE OFTEN ASSUMED THE GAIT AND SOMETIMES THE DIET OF THE SERPENT

AND ABOVE ALL

WHO HAVE BORNE IN SILENCE

(MORE OR LESS)

THE INFLICTIONS OF A MAN WITH A HOBBY

I DEDICATE THIS BOOK

IN MEMORY OF

(TO ME)

MANY PLEASANT EXPEDITIONS

Figure 4.27 Acknowledgements, Williams-Freeman (1915).

were necessary" (1915: vii). This method bears a striking similarity to Crawford's descriptions of his own map work as an observer in the RFC (Section 4.4), and his description of his ground-based fieldwork for *Wessex from the Air* (1955:171; cf. Barber 2015:36).

[433] Jacquetta Hawkes wrote of flying "[I]f…I were at this moment to leap into a jet aeroplane we could catch up with day in a few hours, or could plunge into winter in a few days. It is difficult to remember for how a great part of history these thoughts and images would have appeared as the wildest delusions of a madman" (1951:6). Just as the invention of the aeroplane shattered previously established perceptions of time and space, the incursion of motorways and railways into the countryside radically disrupted long-established ways of moving through the landscape—eschewing the old paths and tracks and moving at a pace far beyond that of walker (cf. Clay 1927). Crawford's unpublished manuscript *Bloody Old Britain* has been described as a "howl of indignant rage" at this intrusion (Hauser 2008:191). The section of the manuscript covering 'Roads and Transport' begins with a poem quoted from Punch, "In my little wheeled abode/ I rush along the by-pass road" (MS Crawford 109.91).

[434] Cf. Dominici (2018) on cycling and photography.

This intimacy was not just the result of the slower pace that walking forced upon the traveller, but was a tactile experience of landscape that began with the feet. On the 22nd June 1911—the same day King George V was crowned—Williams-Freeman helped Crawford trace his first Roman Road from Dibden Purlieu on the borders of the New Forest:

It was the first time I had actually traced and discovered an unknown portion of Roman road…Our discoveries on that memorable day were a revelation to me. The causeway of the Roman road was plainly visible throughout, even when it had been lowered by cultivation; it was a solid and concrete thing (Crawford 1955:76; cf. Crawford 1921:165; Graves-Brown & Schofield 2019:63).

From that moment onwards the tracing of Roman roads became a major obsession for Crawford. To the field archaeologist on the ground, a well-preserved Roman road would appear as a "broad low mound of earth, about 16ft. wide" matched on either side by parallel depressions (Crawford 1949:4). Even if the causewayed mound had been ploughed out of existence, the path of the road would be "perceptibly stonier" underfoot, and might even appear as a traced line of crushed paler flints cutting through fields as in Print 13.117 (Figure 4.28) (Crawford 1949:6). If the relative stoniness of the terrain was uncertain, one could always walk across the suspected path of the road at a right angle (Figure 4.29 & Figure 4.30), comparing the relative amount of stones present with the surrounding field (Crawford 1953:55). Subtle variations in soil colour could trace the path of such roads in the form of soil marks; formed by the contrast between damp or marshy ground and the lighter coloured material of the built-up causeway (Figure 4.31). Local gardeners could often be prevailed upon as knowledgeable sources of information on the location of the stoniest patches of ground in any given section of land, as well as purveyors of local folklore (Williams-Freeman 1914:36).

It was not just the feel of stony ground underfoot which guided Crawford across the landscape. In a radio broadcast entitled "Reminiscences of a Field Archaeologist" Crawford advised listeners:

"The field archaeologist doesn't need very much equipment except a map and a walking stick. The map—what he needs a map for is obvious; the walking stick may be used for many purposes. If you mark it you can use it as a measuring rod; if you're tracing a Roman road you can stick it in the grass and feel the Roman road…you can chase a buried ditch by banging on the ground, what is called in Sussex 'bozing'… you can tell by the sound whether you're passing over a silted-up ditch. It makes quite a different sound…when you're going over…ordinary dry chalk….it makes a hard sharp sound…and when you're banging the pick over the sort of

filled up ditch it makes a deep booming sound." (Transcript in MS Crawford 101.200-201; cf. Hauser 2008:67).[437]

Key to understanding the significance of this account is recognising that field archaeology as practised by Crawford was not simply—as it has so often been framed (See Section 4.8)—a regime of visual attention, but a whole-body experience arising out of the close physical contact between archaeologist and subject. The sounding of the walking stick produced vibrations "appreciated not only by the ear as a 'thud' or 'thoomp' but by the feet as well" (Crawford 1953:134).[439] It was through this physical and tactile proximity that Crawford came to understand the ground that lay beneath his feet.

[437] Crawford first experimented with bozing while excavating the Roundwood Barrows in 1920, after reading about the method in *Excavations in Cranbourne Chase* (1887) and went on to report several successful applications of the technique (Crawford 1953:134; cf. Crawford 1928b; Hooley 1929). See also Crawford (1953:63) on further uses for a walking stick.

[439] In *Man and His Past* Crawford wrote that all the senses were actually "specialised developments of the sense of touch. Our eyes feel waves of light…our ears feel the vibration of the air" (1921:20). It is important to qualify that here Crawford was writing about the relationship between the senses, tool use and evolution, drawing on many of the racist theories of cultural evolution discussed in the previous chapter. But these ideas also conditioned Crawford's understanding of his own fieldwork practice as an embodied endeavour. Barber (2016) has suggested that these theories also bear links to the Victorian interest in psychometry.

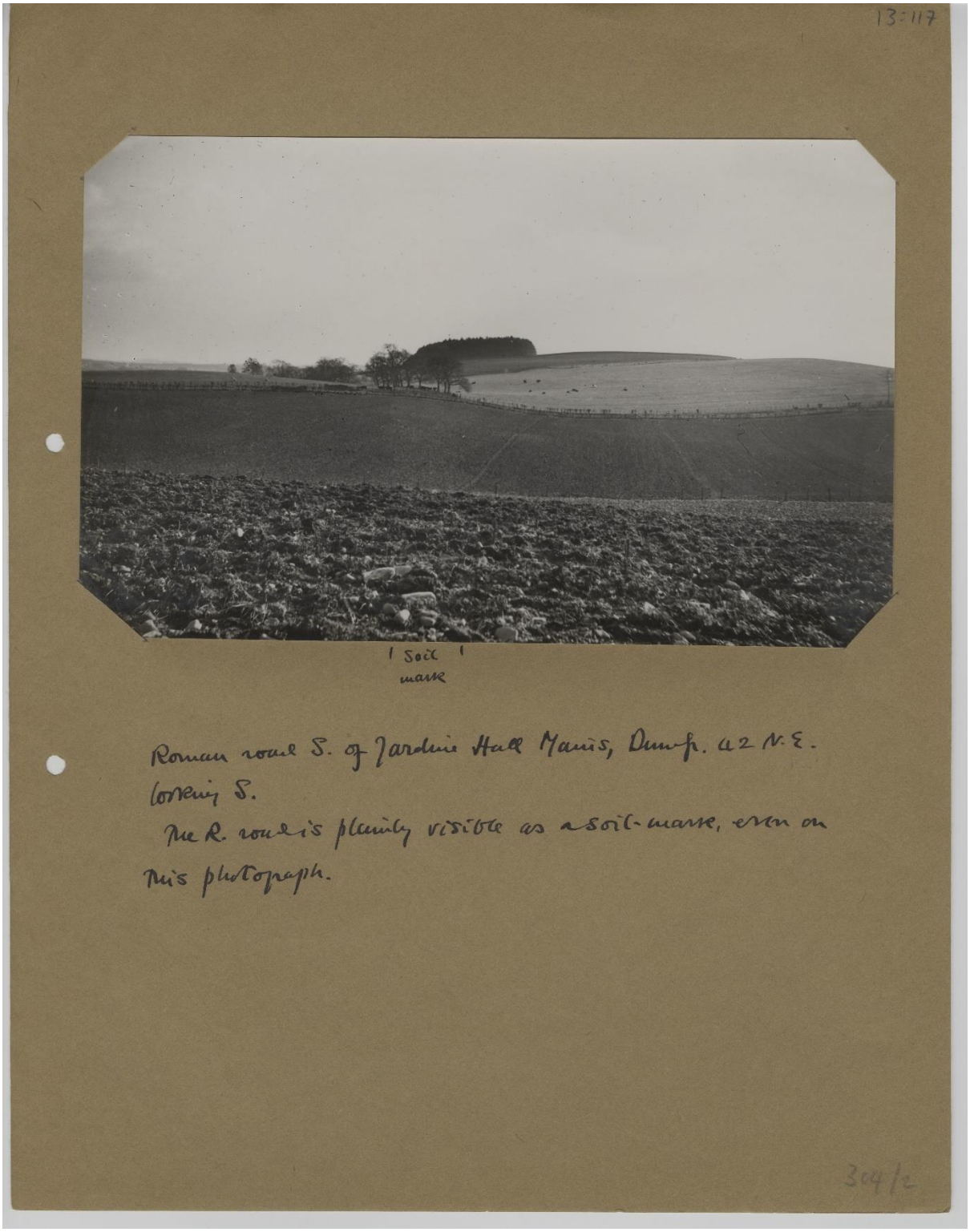


Figure 4.28 Path of a Roman road. Print 13.117.

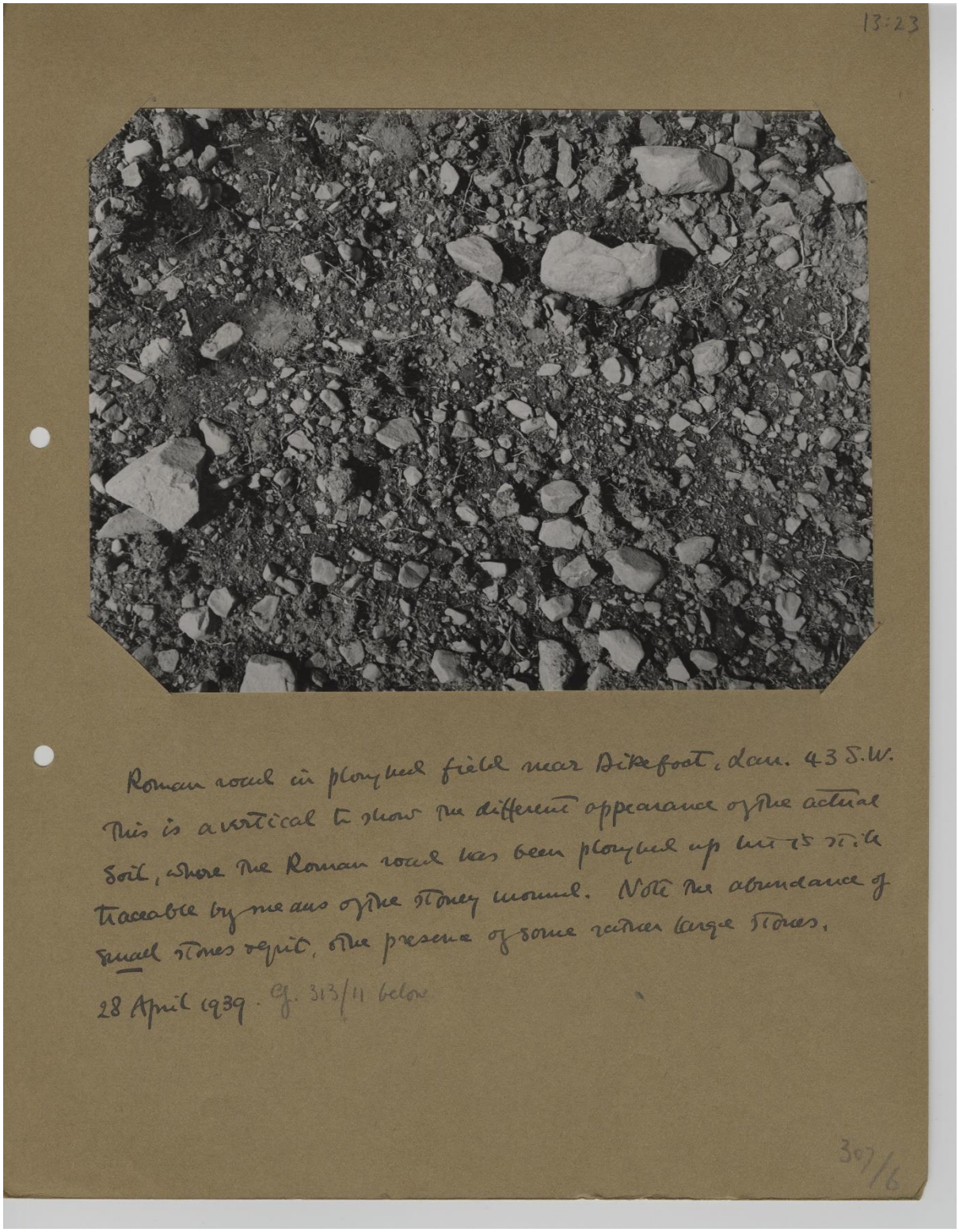


Figure 4.29 Remains of a ploughed Roman road. Print 13.23.

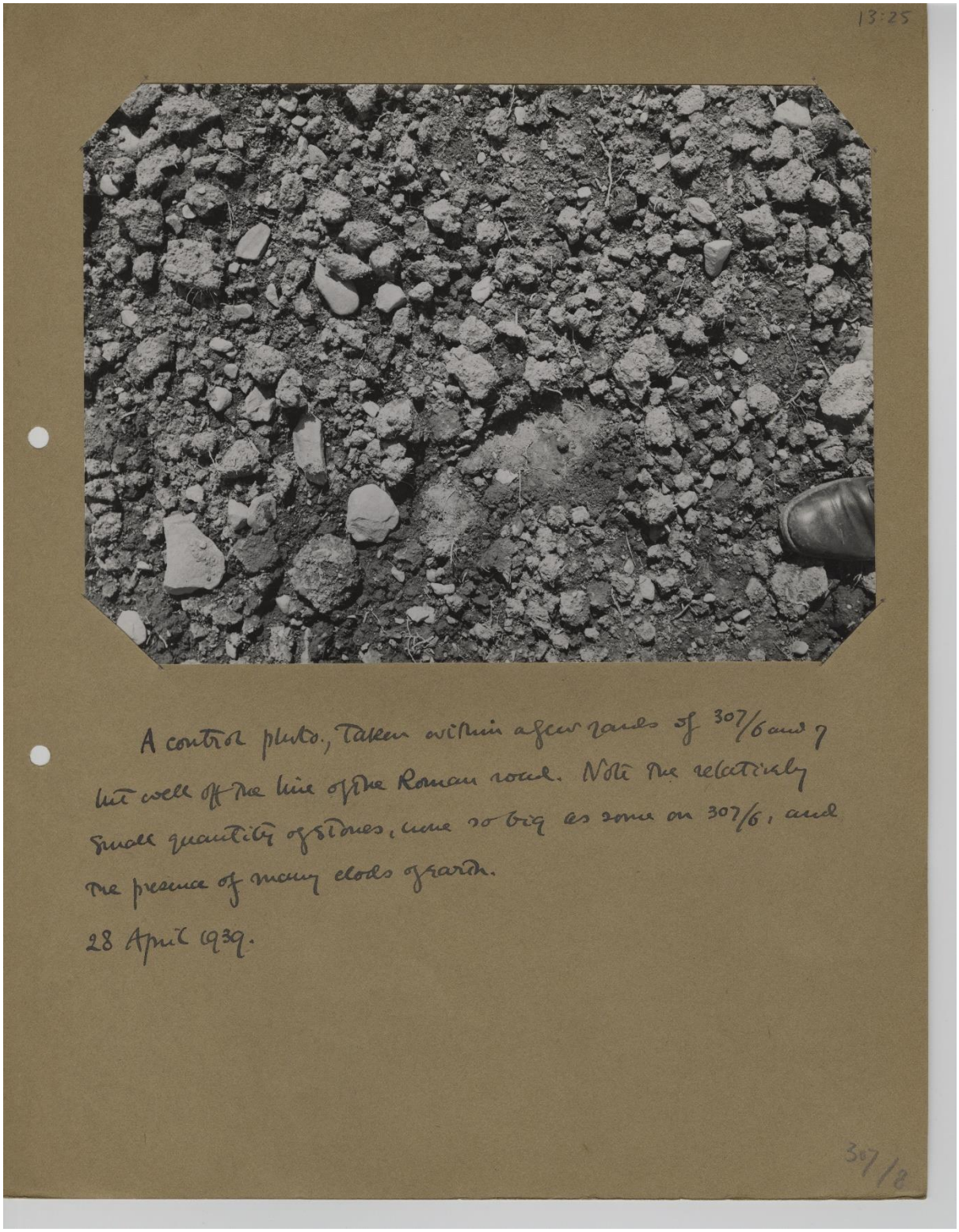


Figure 4.30 To the side of a Roman road. Print 13.25.

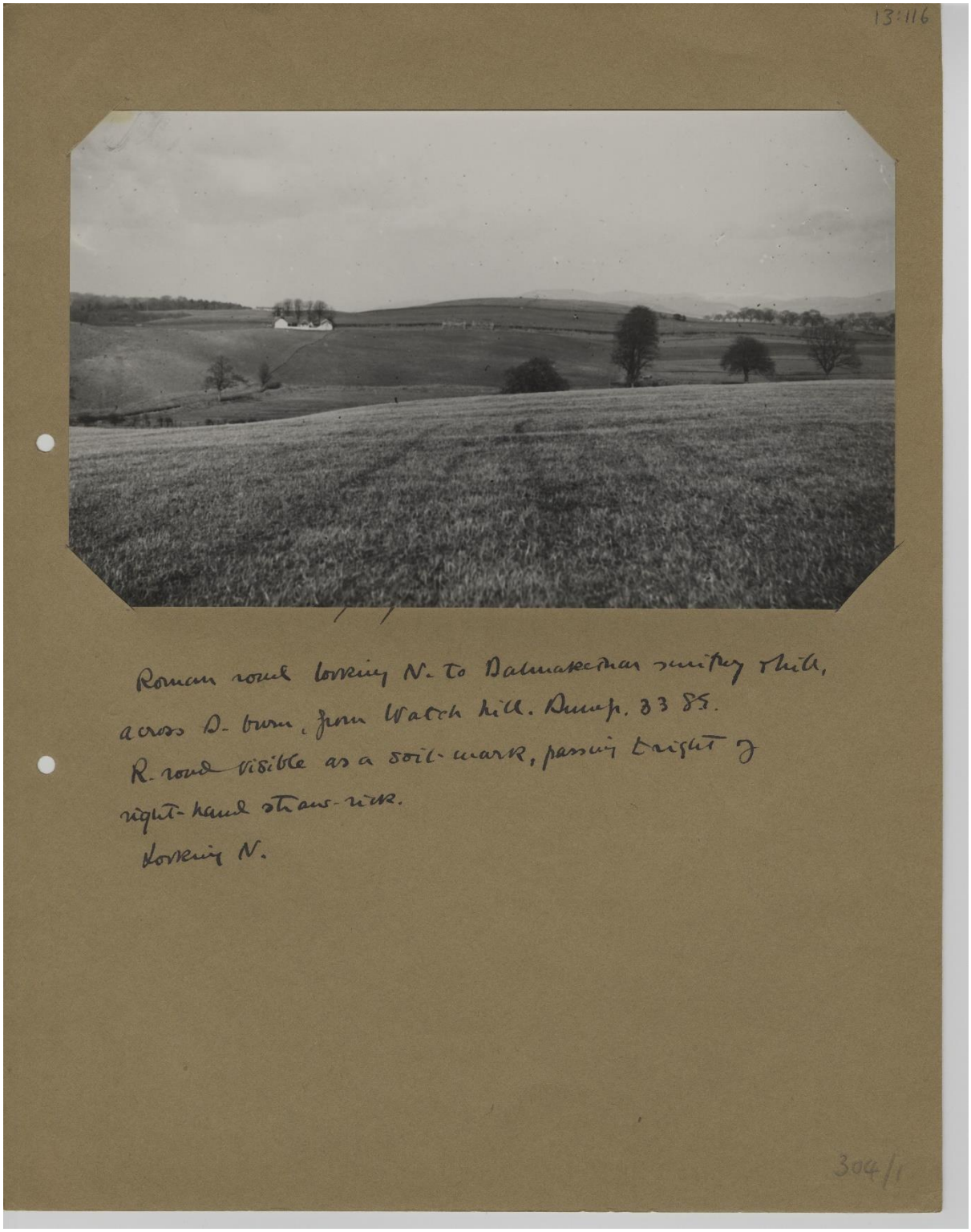


Figure 4.31 Colour contrast in soil marks. Print 13.116.

Through Williams-Freeman, Crawford was introduced to the Hampshire Field Club, and he went on to maintain an association with the club that fluctuated in its degree of intensity throughout his life. Founded in Southampton in 1885 by a small group of "keen out-of-door men" the earliest publications of the society were dedicated to the zealous compiling of lists which—it was hoped—would prove valuable resources for those looking develop their knowledge of the natural history or antiquities of the county;

> lists of the birds of Hampshire, of the fishes, and of every kind of animal from badgers to the minutest insects, while the botanical side of Nature is covered by lists and descriptions of the finest and rarest trees down to the lowliest of mosses and fungi (Williams-Freeman 1943:236; cf. Taylor 1985:5).

As the club matured it developed 'Sections' in Botany, Field Archaeology, Fungi, Geology, Natural History, and the Isle of Wight. Meetings of the club would explore any number of the section specialisms. Programmes retained in Crawford's archive from the 1940s speak of visits to country houses, an outing to Herriard Park to observe trees and shrubs and guided "Fungus Forrays" (MS Crawford 77.100-102,104, 129). Such outings would often blend together a variety of the club members interests; one programme promised "the party will make their search for fungi on and around Noar Hill and will then proceed to Selbourne Common and The Hanger, examining any likely ground on the way" (MS Crawford 77.129). In this regime of attention every detail of the local landscape, down to the smallest vegetative growth was worthy of consideration. It was these early experiences of walking that seem to have cultivated in Crawford a keen eye for relishing even the smallest details; the imprints which a bird's wings left on the snow (Figure 4.32), a crop of daisies pushing upwards from a patch of disturbed soil (Figure 4.33) or the "Vivid green splashes of pennywort, yellow stars of celandine, clusters of violet, and the twisted white cords of ivy" which made up a Cornish hedgerow (Crawford 1936a:162).[440] Once details like these were spotted Crawford confessed "I found it difficult to look at anything else" (Crawford 1936a:162).

[440] Hauser also notes this particular quotation from Crawford, though interprets it very differently as I discuss in the conclusions of this chapter (Hauser 2007:127).

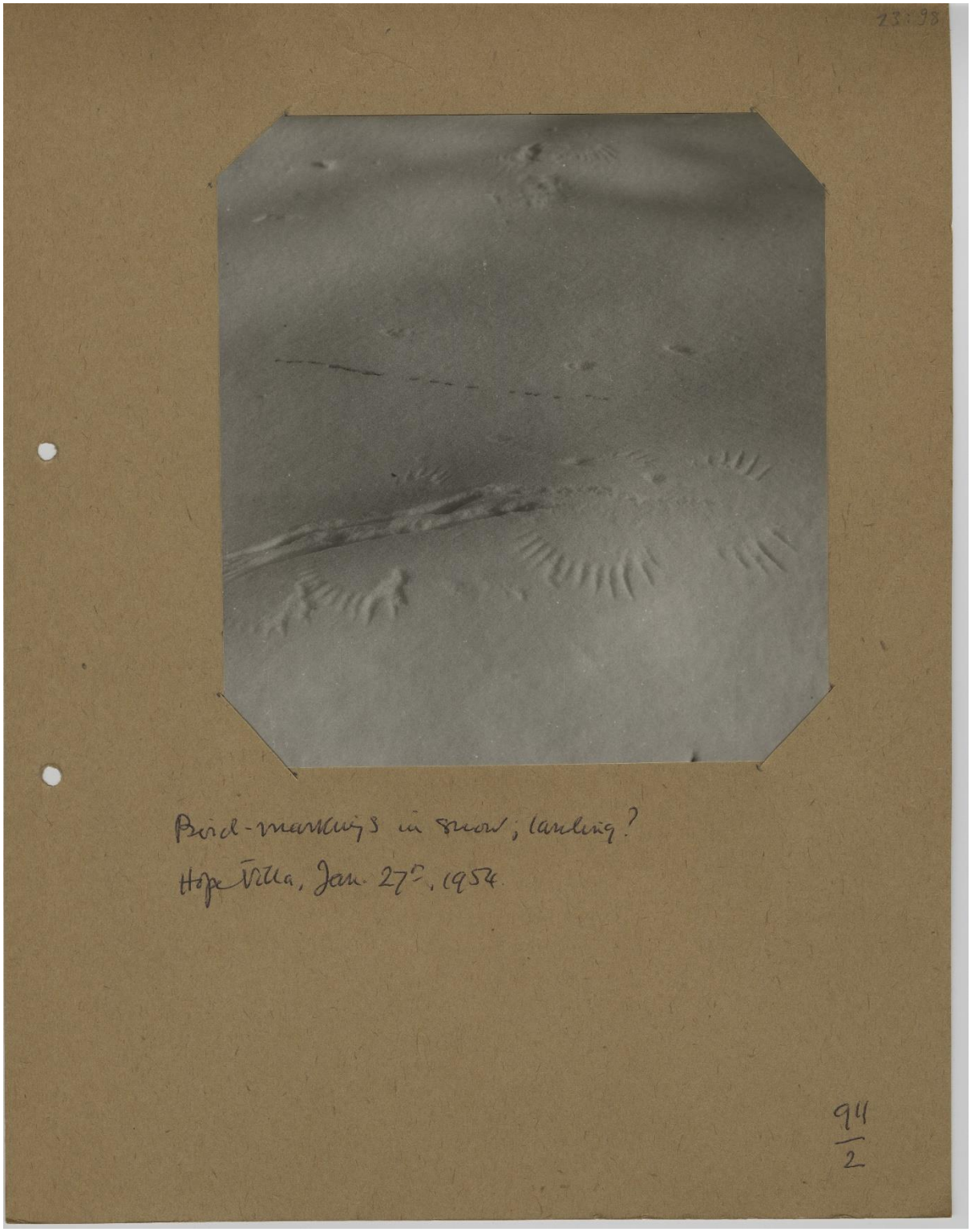


Figure 4.32 A bird's wings in the snow. Print 23.98.

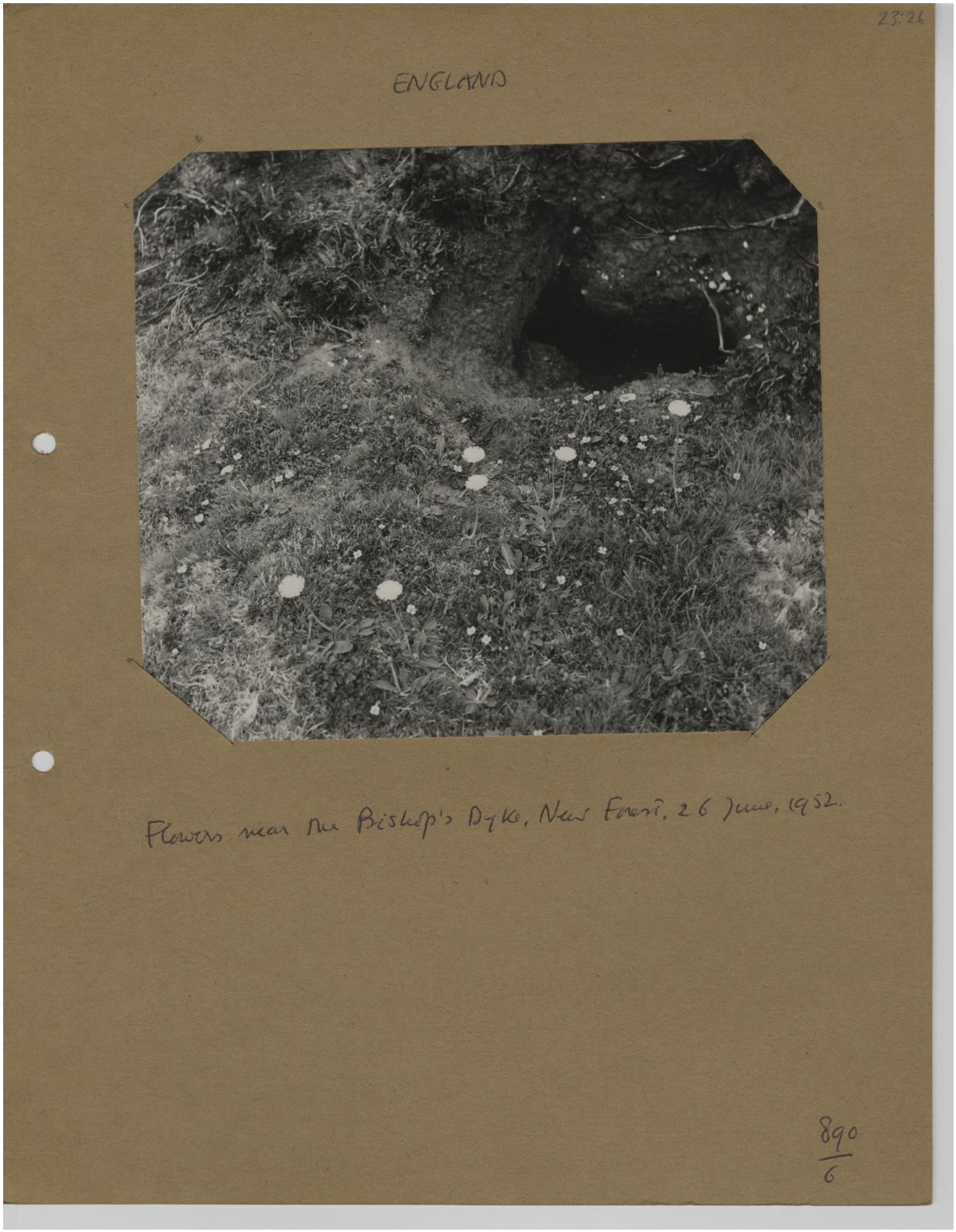


Figure 4.33 Daises. Print 23.26.

The opportunity for Crawford to blend together these early influences, and continue his exploration of the now familiar chalk downlands of Hampshire came in the form of his thesis for his Geography diploma (cf. Barber 2015:41). Though *The Andover District* was not published until 1922, Crawford began the fieldwork in 1909, and drafts can be found in MS Crawford 103 often written on "School of Geography" embossed paper.[441] The thesis explored the area of Andover covered by sheet 283 of the one-inch ordnance survey map (Figure 4.34), in response to a proposal put before the Royal Geographical Society by Dr Hugh Robert Mill in 1896 (MS Crawford 103.123). Mill called for the preparation of a "complete geographical description of the British Islands" broken down into a "series of regional memoirs" (1896:348). The one-inch Ordnance Survey map was recommended as providing the best basis for a study of this kind; once a series of "adjacent sheets" had been studied Mill proposed that these could be combined into a single regional memoir (1896:349).[442]

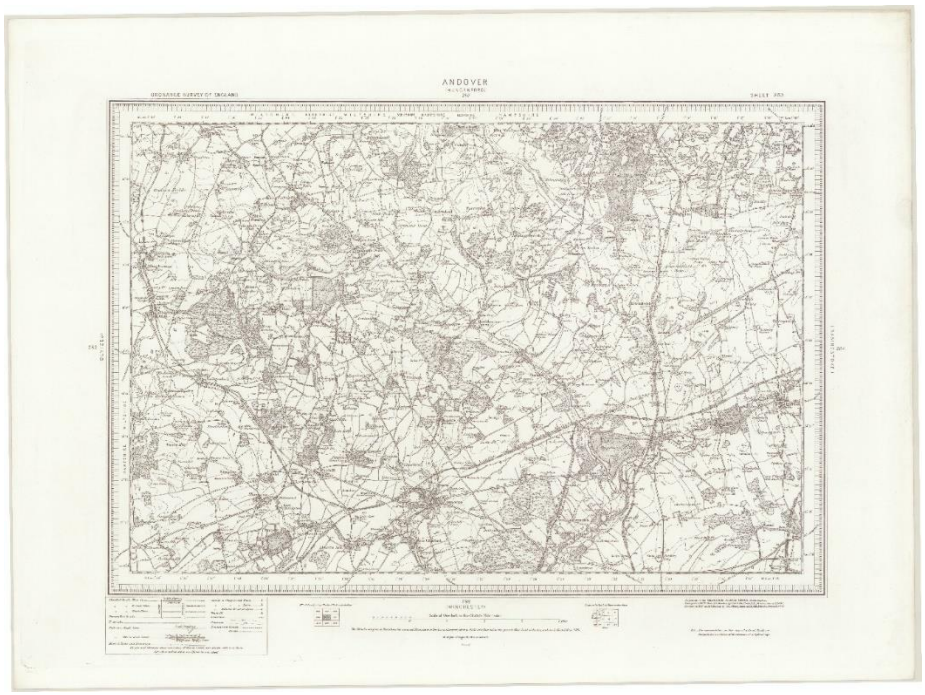


Figure 4.34 The Andover District, Sheet 283 (1895). Scan by the National Library of Scotland.

[441] Much like his use of Jebel Moya headed paper in Chapter Three. And, as in examples of his Sudanese work where Crawford positioned himself as a Sudanese expert, here Crawford also adjusts his title, billing himself in the frontispiece of the manuscript as "OGS Crawford, BA. Formerly Junior Demonstrator at the School of Geography, University of Oxford" (Crawford 1922).

[442] See Brentnall (1910) as an example of a similar study conducted of Sheet 266 of the Ordnance Survey Map. Wickstead (2019) and E. Edwards (2012) have noted similar survey movements emerging in the fields of photography, anthropology, folklore studies and psychology which were also premised on the idea that intensive local survey could be incorporated into broader national ventures.

In 1909 armed with sheet 283 of the Ordnance Survey map Crawford set out from his aunt's house in East Woodhay, covering the ground to Salisbury and Blandford Forum, and back again to Stockbridge and Sutton Scotney, some 100 or so miles on foot (Crawford 1955:51; cf. Hauser 2008:16).[443] The journey was to become his "first piece of systematic fieldwork" (Crawford 1955:50; Cf. Hauser 2008:17; Barber 2015:40; Wickstead 2019). Years later he was to reflect that it was only by walking a landscape in this manner, having the luxury of time to "devote to a region" that it was possible to have any kind of depth of understanding of the topography (1953:53). Reviewing a rival geographical memoir of Hampshire, Crawford would acerbically insist "A geographical memoir should be the culmination of a long period of intense study…A mere study of the Ordnance Map cannot lead to anything but vague generalisation" (1924:421). Walking was a form of intimate communion with the land, learning its shapes on a microscopic scale. Crawford distinguished three kinds of evidence upon which his thesis relied; *geological* evidence such as the distribution of vegetation or the topological shape of landscape, *anthropological* evidence of past ways of life that could be gleaned by living folk customs and memories, and *documentary* evidence such as place names, tithe award maps and boundaries described in Saxon charters (MS Crawford 103.112). Despite the clearly defined categories of evidence—perhaps drawing on his experiences with the Hampshire Field Club—Crawford argued "in the field one can collect evidence leaning on all these departments" simultaneously; when speaking with local farmers about the locations of historic field boundaries "one picks up pieces of valuable folklore and local history" for "many queer customs have lingered on" (MS Crawford 103.113; Crawford 1922:12).[444] Despite his growing familiarity with the landscape, Crawford could still be caught out by moments of breath-taking beauty; in his unpublished notes he records "a gorgeous sunset effect caused by slow clouding over of the whole sky from the N.E., whole of Salisbury plain and beyond visible in a haze of golden light" (MS Crawford 107.55). The ancient yew trees that dotted the landscape were both "eerie and lovely" (MS Crawford 107.58) and at Hambledon Hill, Crawford was "so overcome by the beauty of the view…I did not even mention the great hill fort in which I sat" (MS Crawford 107.59). Such was the lure of the ground that Crawford retreated to the village of Great Rollright to compile his results; writing that if had he gone home to more familiar territory the urge to head back out into the landscape would have been too hard to resist (MS Crawford 107.61).

In this section I have set out a series of snapshots into some of the early influences and experiences which conditioned Crawford's training as an archaeologist. Uniting each of these snapshots is the

[443] MS Crawford 107.174 gives an overview of his itinerary for the walk.
[444] Another member of the Peake's circle, the poet Francis Toye recalled going "ahunting folk-tunes" on his wanderings with the Peakes (1950:98).

theme of intimacy. Intimacy has taken several forms; under the influence of Williams-Freeman Crawford learned that a good field archaeologist was guided by the tactile sensations arising from the feet. From the Peakes, Crawford was conditioned to seek physical proximity to traces of the past in the landscape. In rambles with the Hampshire Field Club no detail was too small to go unnoticed. Finally, in his Andover district research, intimacy took on a temporal character arising out of sustained engagement with a particular landscape. Even Hauser is prepared to admit that the archaeology practiced by Crawford, Williams-Freeman, and the Peakes in these early years was in pursuit of "a visceral knowledge of the land that is as intimate as the farmer's knowledge of his fields" (2008:68). This admission is especially jarring given her broader framing of the photographic archive; "Looking at these images gave me a strange sense of vertigo. It was as if I were looking at the world they depicted from a great and inhuman distance" (Hauser 2008: ix). Indeed, undercutting each of these snapshots is Crawford's prolonged intimacy with a very particular landscape; the counties of Hampshire, Oxfordshire, Berkshire and Wiltshire. The significance of these counties lies in the fact that the ground Crawford walked over in these early years would shortly become the subject of aerial survey in *Wessex from the Air* (cf. Barber 2015:40).[446] I return to the significance of Crawford's terrestrial knowledge of the Wessex landscape in Section 4.8, but for now it remains to remark that the influence of these early years persisted into the very last years of Crawford's life. In a letter to Wheeler discussing his ideas for *Archaeology in the Field* (1953) Crawford wrote:

> I had in mind a book which would fall in the same sort of category as some of those very amateurish and in places quite crazy little books that were written when we were first beginning archaeology, dealing with subjects like dewponds, so called Neolithic trackways and the like (Letter to Mortimer Wheeler from O.G.S. Crawford, 21 February 1953. British Academy, MWA_6_1).[447]

Long after Crawford's famous aerial discoveries of the 1920s, it was to these familiar local regions—and the auspices of the Hampshire Field Club—which Crawford returned. In 1935 C.J.P. Cave—whom we met in Section 4.4—presided over the revival of the photographic section of the Hampshire Field Club and correspondence between Cave and Crawford turned to tracing salvaged church masonry in local buildings (e.g., MS Crawford 5.228, 6.29, 6.117, 6.142) (Figure 4.35).[448] Crawford gave club members tours of the church by his house in Nursling and read papers on local history (MS Crawford

[446] Crawford defined 'Wessex' as roughly following the counties of "Hants, Berks, Wilts and Dorset" (1921:154). St Joseph significantly recognises that the "greater part" of *Wessex from the Air* is actually Crawford's account of ground-based fieldwork on the sites identified from the air (1981:6).
[447] Elsewhere Crawford wrote that the book "stems ultimately from talks with Harold Peake" (MS Crawford 107.41).
[448] See Box 38 of the photographic archive. Crawford seems to have shared this interest with his father C.E.G. Crawford, who compulsively kept lists of the churches he visited (See MS Crawford 118). "Churches"—Crawford wrote— "are nearly always interesting" (1955:310).

77.118). During the Second World War Crawford's local enquiries took on a more pointed focus. Devastated by the loss of much of his life's work in the bombing of the Ordnance Survey offices in Southampton, Crawford showed little interest in joining other archaeologists aiding the war effort by interpreting aerial photographs at Medmenham, instead he was quietly re-assigned to work for the newly created National Buildings Record documenting historic buildings in Southampton at risk of bombing (Crawford 1955:275-277; Hauser 2008:231-241). Crawford and Cave discussed the vapour trails that an aeroplane might leave behind in the sky, and their relationship to natural cloud formations; German pilots had experimented with leaving trails of smoke in the sky, Cave informed Crawford, as a means of distracting British aerial defences (MS Crawford 3.40). Crawford's friends and associates sent him pictures of vapour trails in the sky asking what they meant.[449]

As the bombs rained down on Southampton, the shattered buildings threw up finds of great archaeological interest, such as the revelation of an inscription, discovered in the rubble near the theatre on French Street (Figure 4.36 & Figure 4.37) (Hauser 2008:237).[450] Crawford undertook to photograph these fragments, corresponding with Cave to arrange to lead members of the Hampshire Field Club in tours around some of the traces of Old Southampton revealed in the wreckage (MS Crawford 77.9). Crawford suggested that this project alone represented 50% of his total photographic output (1955:209). Copies of Crawford's photographs for the National Buildings Record were siphoned off to the Hampshire Field Club's local archive (MS Crawford 77.42, 46-47).[451] Hauser writes that Crawford's activity at this time began to look "suspiciously like local antiquarianism" (2008:239). In doing so I can't help but feel that Hauser misses a very important point; though Crawford's aerial discoveries may have had national and even international ramifications for archaeology his interests always returned to the local.

[449] See annotation on Print 49.4.

[450] Figure 4.37 appears in Hauser's biography of Crawford (opposite page 237), where she makes the curious assertion that Crawford's photographic record of the ruins was an entirely dispassionate "hard documentary role" (2008:234).

[451] Note that in the present an online search for Crawford's photographs in Hampshire Field Club records gives only two results (65M89/A11 and 65M89/Z302). The pandemic has prevented an in-person search to identify if any further copies remain, but correspondence between Crawford and club officers is clear that Crawford donated a substantial number of prints.

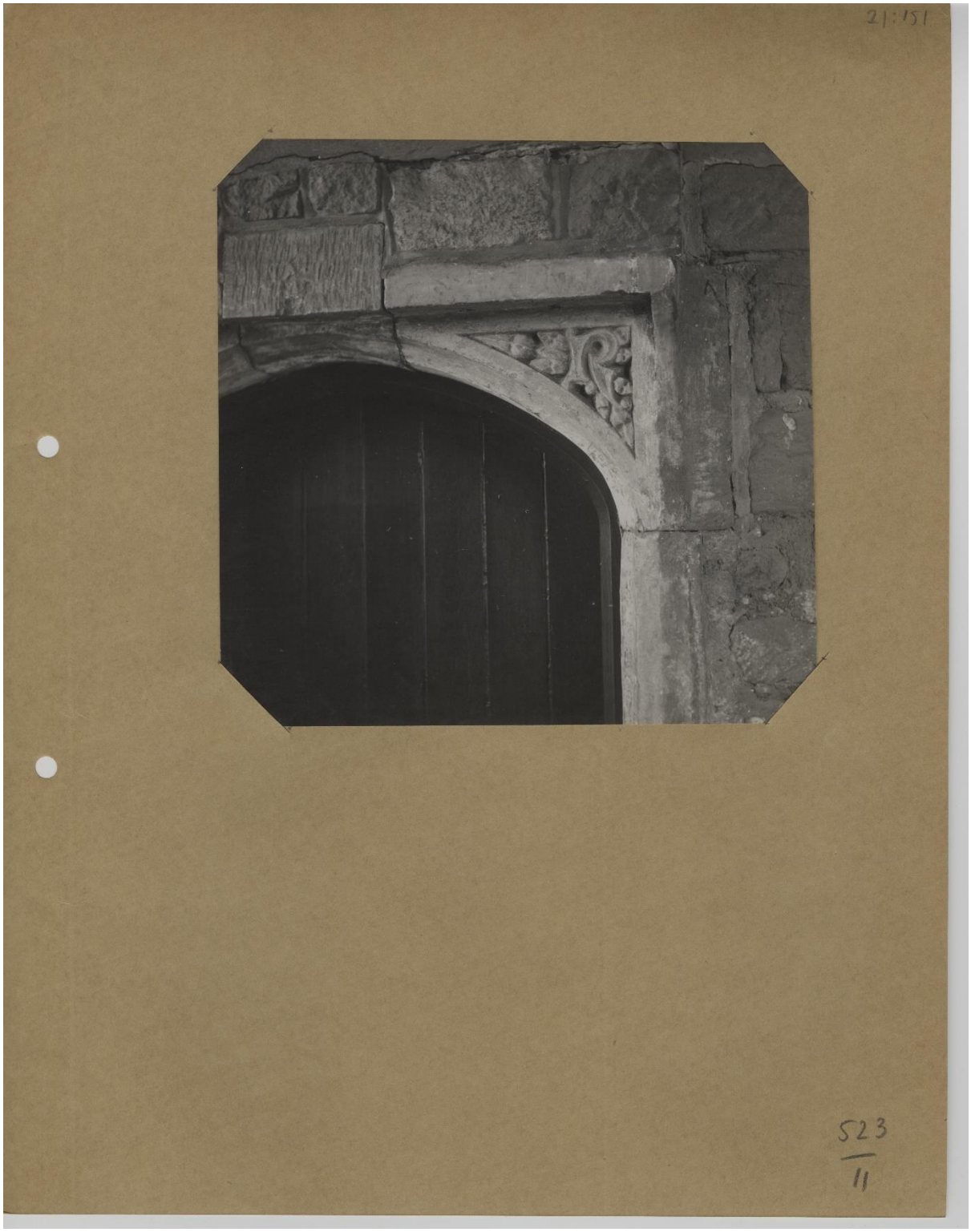


Figure 4.35 Salvaged church masonry. Print 21.151.



Figure 4.36 The ruins of Southampton. Print 30.126.

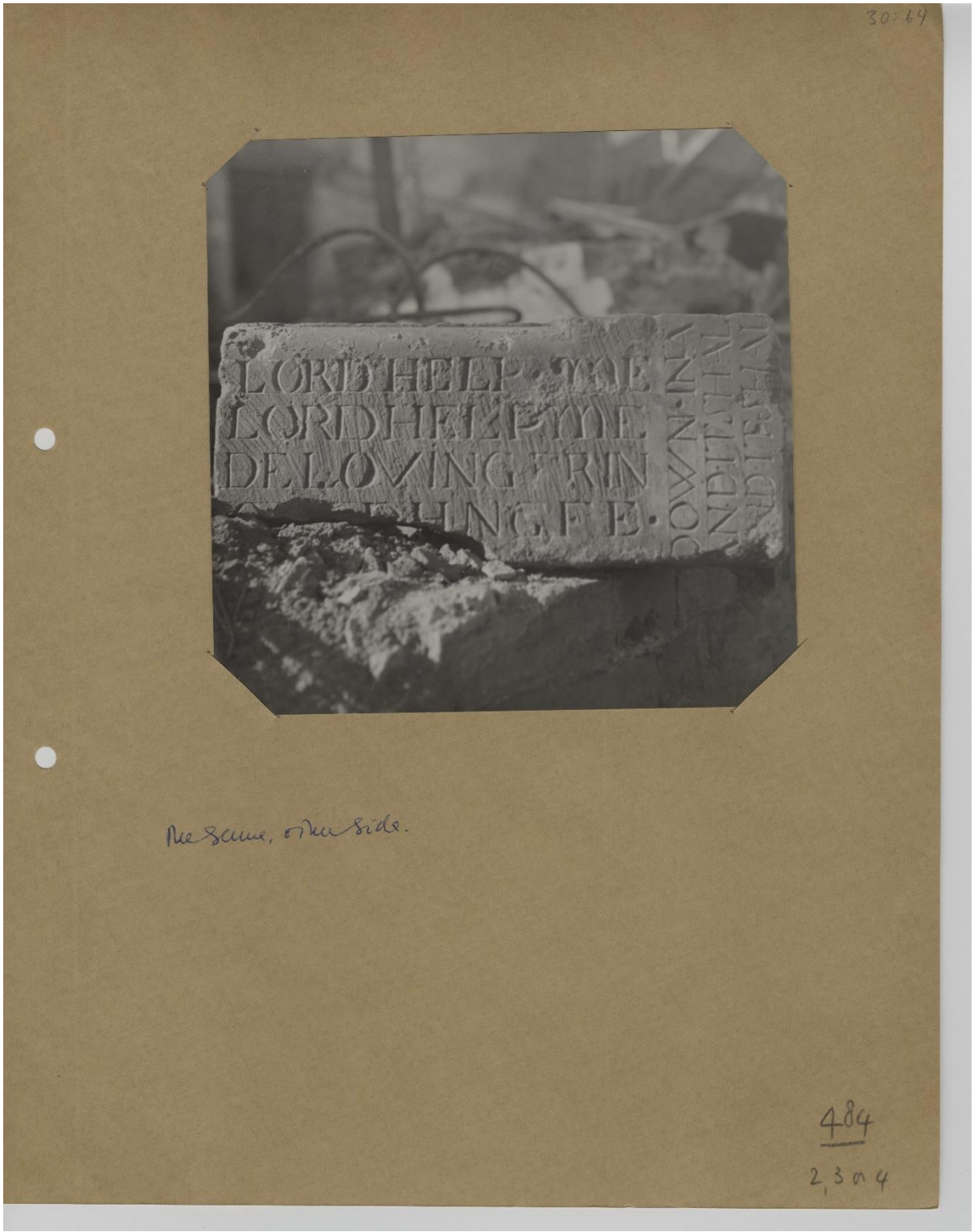


Figure 4.37 Rubble in Southampton. Print 30.64.

4.7 Weatherworlds, Cropmarks and Shadowsites

4.7.1 Weatherworlds

In *Being Alive* (2011) the anthropologist Tim Ingold explores a series of psychological studies, each designed to question the relationship between sky and ground. In one experiment, participants were asked to draw the earth, and then add to the drawing the position of the sky and clouds (Ingold 2011a:107). Participants struggled to fulfil this request; having initially drawn the 'earth' as though looking at the planet from the perspective of space, they argued that what surrounded the planet was the atmosphere not the sky. The sky could only be located relative to the ground—from the terrestrial perspective—and was effectively imperceptible from the perspective of space (Ingold 2011a:104). If the sky can only be perceived from the ground, Ingold asks, then perhaps the sky is part of the ground, and that the ground is part of the sky? Ingold extends this argument further, if the sky and the ground mingle with each other, what form does this mingling take? Ingold's answer is the *weatherworld*; places where "the wind, light and moisture of the sky bind with the substances of the earth" (2011:115). The weatherworld manifests in the way the ground reflects the light of the sky, in the sounds of trees and plants stirred by the wind, or the feel of the soil as it is dampened by rain, or warmed by the sun (Ingold 2011a:132).[454] From this perspective both land and sky are in constant flux, and these movements form the environment which we as humans *perceive in* "underwriting our very capacities to see, hear and to touch" (Ingold 2011a:122,130). Ingold's thought experiment thus pushes us to consider far more holistic connections between the ground and sky.

These fluctuations of the weatherworld are fundamentally present in the interactions between archaeologists and the sites which they study. In 1993 landscape archaeologist Tilley argued "a megalith in a rural setting, in fields or woods, always has a distinctive character about it. The same tomb changes and alters its character according to the weather conditions, the qualities of light, the seasons of the year. It is never exactly the same place twice" (Tilley 1993:54). And yet Ingold notes, the weather is a topic that has been vastly overlooked in archaeological, anthropological and art historical research (2011a:96,130). The photo-historian Michelle Henning makes the similar observation that photographic theory privileges analysis of the temporal at the expense of considering the medium's potential for "harnessing the apparently natural and intangible qualities of light and air" (2020:177). However, as Ingold (2011) and Tilley's (1993) work demonstrates, to speak of the incessant shifting of the weatherworld is to automatically induce a consideration of the temporal. The effects of the weather have already been felt in this thesis in Chapter Two as

[454] Much of this perspective is prefigured in Shepherd's *The Living Mountain*, e.g., "The air is part of the mountain, which does not come to an end with its rock and its soil" (1977:41).

Crawford and his colleagues scrambled to protect the delicate leather and fabric finds from the heat of the sun as it poured into the burial chamber at Sutton Hoo. Crawford's longstanding habit of observing the weather following his time with the RFC has been explored in Section 4.4 of this chapter. In this section I continue to develop my framing of Crawford's aerial and terrestrial fieldwork as characterised by intimacy; noting instances where Crawford's early experiences of fieldwork from the ground manifest in his later archival and aerial practice. Moreover, I explore how the shifting patterns of the weatherworld can be felt in Crawford's archive; working backwards from the movements of the weatherworld to the rhythms of Crawford's photographic and archaeological practice. And in attending to these rhythms, it is possible to expose the threads which bind Crawford's aerial and ground-based work together.

4.7.2 Cropmarks

One of Crawford's most famous innovations in the field of aerial archaeology was his recognition that traces of the past might be seen from the sky in the form of cropmarks, soilmarks and shadowsites.[456] Cropmarks, soilmarks and shadowsites are by their very nature constantly in motion. Cropmarks rise and fall according to cycles of plant growth, recent rainfall and are subject to the whims of harvesting farmers. Shadowsites swim in and out of focus with the movement of the sun. Parchmarks appear only in times of extreme dry weather, and soil marks depend on the contrast between damp and dry ground. [457] Each constitutes a prime example of the weatherworld in action. Crawford's recognition of the potential of cropmarks, soil marks and shadow-sites to identify archaeological sites from the air is generally held to have come in 1922 when he and Williams-Freeman were shown a series of RAF photographs on which could be discerned the outline of ancient field systems (Barber 2011:132; cf. Crawford 1928:5; Crawford 1953:46). Crawford reported the discovery to a meeting of the Royal Geographical Society the following year, catapulting himself and the new technique to archaeological fame (Crawford 1923; cf. 1955:168-169).[459] There is a question over the extent to which Crawford had conceived of the full-implications of the view from the air for archaeologists before seeing these photographs. In *Wessex from the Air* Crawford claimed that:

> My own interest dates from the time, before flying became at all common, when I used to discuss with Dr J.P. Williams-Freeman the possibilities of an overhead view. We knew that the low banks and mounds of

[456] It is worth noting that Crawford originally referred to cropmarks as "streak sites" and this terminology can be found in his earliest publications (Crawford and Keiller 1928:6; cf. Barber 2011:131).
[457] The aerial archaeologist Wilson notes that shadowsites are far more commonly photographed given the far rarer conditions required for cropmarks or soil marks to bear fruit (1982:27).
[459] In 1923 Crawford used the same technique to identify the path of the Stonehenge Avenue to great acclaim, see Barber (2011, 2016). Crawford's 1923 paper was adapted into an Ordnance Survey monograph, *Air Survey and Archaeology* (1924), followed by a second publication *Air Photography for Archaeologists* in 1929.

prehistoric fields, villages and barrows were plainly revealed at sunset, even to an observer on the ground…We also knew that the course of prehistoric boundary-ditches could often be seen in the corn when the observer could view them from a distance…We longed for overhead views of Wessex before the first air-photograph had been taken" (Crawford and Keiller 1928:5; cf. Crawford 1953:45; Barber 2011:131).

Barber has suggested that "there seems to be an element of hindsight involved" in Crawford's statement, and that while shadowsites may have been anticipated in the view from the ground, the revelation of cropsites from the air was "completely unforeseen" (Barber 2011:131; cf. Hauser 2008:78).[460] It is worth entertaining Crawford's claim, if only because it offers an opportunity to look for connections between the view from the ground and the view from the sky. Williams-Freeman was certainly writing about the potential of the aerial view in the very early days of the First World War; in 1915 he predicted "In a few years we will doubtless fly from hill to hill…aviation will doubtless do much for the study of earthworks" (1915: xx-xxi; cf. Barber 2011:131). Evidence of Crawford's interest in the relationship between the view from the ground and the view from the sky which predates both his experiences in the RFC and his observation of the RAF photograph in 1922 has already been demonstrated in examples of Crawford's terrestrial photography during the First World War in which he juxtaposed the view from the height of the tower in Acheux with a photograph looking up at the tower from the ground (Figure 4.10 & Figure 4.11). Other similar pairings exist from Crawford's later research, like Print 3.108 and 3.109 (Figure 4.38 & Figure 4.39) which present alternate views of the tracks scoured deep into the sides of Postern Hill from the ground and from the sky, or in the pairing of aerial and terrestrial views of cropmarks which appeared in the grounds of Porchester castle in 1938 (Figure 4.40). Photographs like these speak to an interest in the relationship between the aerial and terrestrial perspective that spans the lifetime of Crawford's photographic career. It is also worthy of note that in his announcement to the Royal Geographical Society Crawford framed his discovery in terms of the contrast between perspectives;

Those who have walked over the chalk downs of Southern England cannot have failed to observe certain low grass banks and narrow shelves of soil which are to be found there. It is the great merit of air-photographs that they reveal earthworks upon ploughed land which are invisible to the observer on the ground, or which appear to him only as a confused tangle. This was forcibly brought home to me when I walked over the fields near Windmill Hill, Hampshire. From the air an orderly system is visible (Crawford 1923: 342).

The value of the view from the sky could only be truly appreciated by those familiar with the view from the ground. Though the deeply scoured tracks which marked Postern Hill are perhaps more

[460] Note Barber (2016) shows more acceptance of Crawford's statement.

obvious to the terrestrial observer, given the right conditions cropmarks could also be visible from the ground.

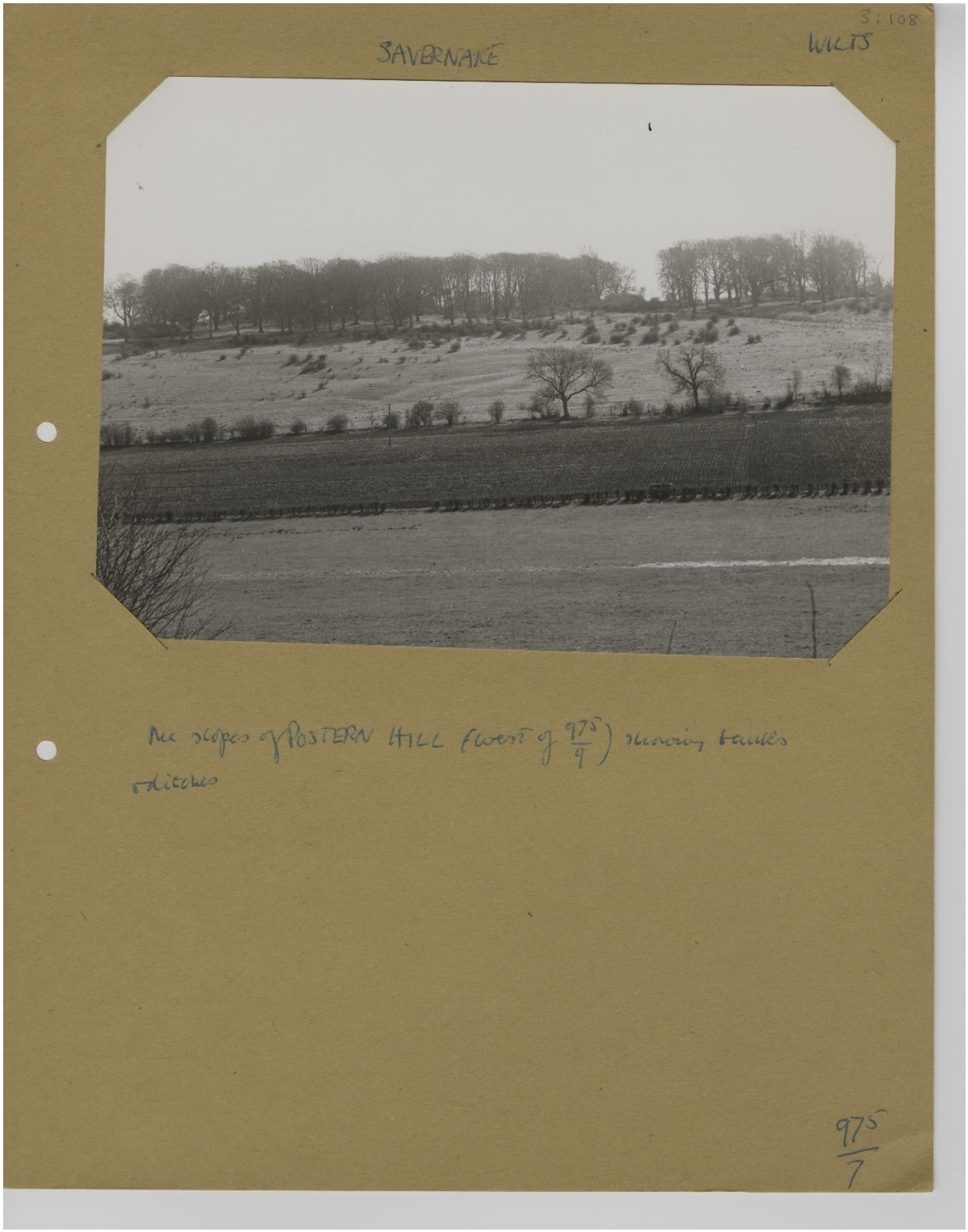
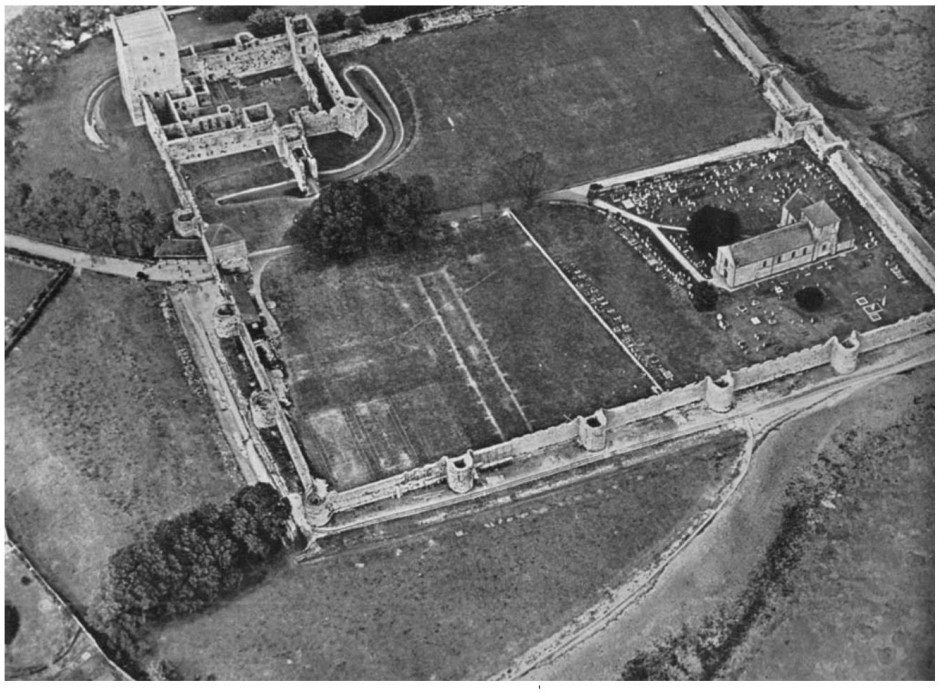


Figure 4.38 Postern Hill from the ground. Print 3.108.



Figure 4.39 Postern Hill from the air. Print 3.109.

PLATE I



CROP-MARK OF BUILDING AT PORTCHESTER CASTLE, HANTS, SEEN FROM THE AIR. (*See* p. 478)
Ph. Major G. W. G. Allen

PLATE II



CROP-MARK OF BUILDING AT PORTCHESTER CASTLE, HANTS. (*See* p. 478)
Ph. G. Bersu

Figure 4.40 Cropmarks at Porchester Castle. Crawford (1938f).

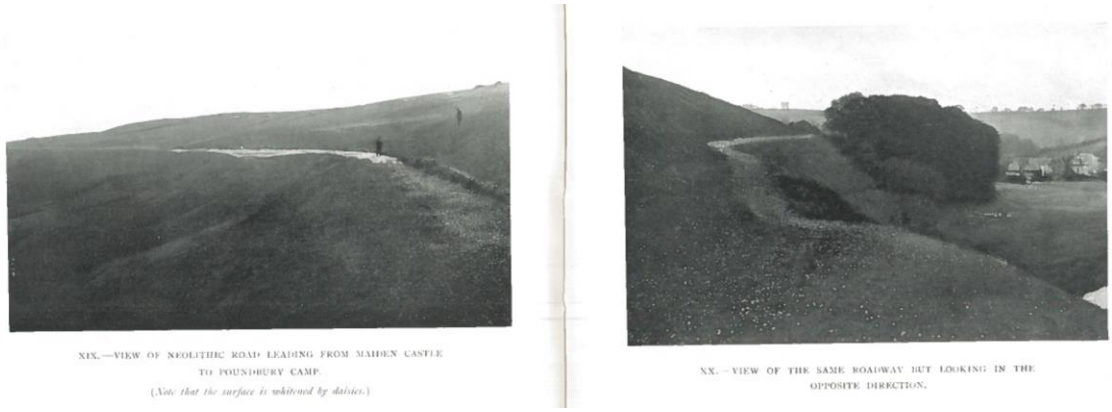
Long before human flight was possible a basic understanding of cropmarks had been toyed with by antiquarians. The earliest written description of a cropmark was recorded by John Leland around 1540 (Barber 2011:114).[461] In the nineteenth century Stephen Stone used cropmarks to judge where to excavate at Standlake, and Francis Haverfield speculated on the relationship between crop growth and the pits and trenches at Northfield Farm (Akerman and Stone 1858; Riley 1982:25; Barber 2011:121).[462] Between the 1890s and Crawford's aerial discoveries in the 1920s descriptions of cropmarks become "scarce" (Barber 2011:127), yet it is possible to fill in the blanks with reference to some familiar names.

In 1904 the Hubbards—authors of that little book *Neolithic Dewponds and Cattleways*—were conducting a field survey of Maiden Castle when were struck by the "rich profusion of wildflowers" at the site which;

> for some inexplicable reason…carpeted the prehistoric roadways…we were both struck by the sight of a well-marked almost complete circle of daisies…not only apparent on the spot, but its outline was clearly indicated when looking down from the ramparts at a point more than a quarter of a mile away…we may conjecture that the ring of daisies…traces for us the outline of a former[earth]work" (1905:40-41).

The Hubbard's photographed these carpets of flowers that laid out ancient pathways and traced the outlines of earthworks (Figure 4.41). This phenomenon was also remarked upon by others in Crawford's immediate circle; Hippesley Cox wrote of "innumerable daisies" which "turn the old trackways white" (1914:1). And the poet Edward Thomas described the signs that mark an old cattle way; "the grass is made finer, shorter, paler and more numerously starred with daisies" (1916:3). Though none of these writers explicitly use the phrase cropmark or link these discoveries to the view from the air, their work develops the seeds of the idea that traces of the past could be written in flowers across a landscape.

[461] For more detailed histories of cropmarks see Barber (2011); Riley (1987, 1996).
[462] Allen photographed the cropmarks at Standlake in the 1930s; see Figure 4.5.



XIX.—VIEW OF NEOLITHIC ROAD LEADING FROM MAIDEN CASTLE TO POUNDBURY CAMP.
(*Note that the surface is whitened by daisies.*)

XX.—VIEW OF THE SAME ROADWAY BUT LOOKING IN THE OPPOSITE DIRECTION.

Figure 4.41 Crop-marks in 'Neolithic Dewponds and Cattleways' (1907).

Crawford seems to have been experimenting with these ideas shortly after the First World War. In an article written for the *Proceedings* of the Hampshire Field Club, Crawford recounted the excavation of the Roundwood Barrows in 1920. Though three of the barrows were previously known, after spending several weeks at the site Crawford made the discovery of a fourth disc barrow:

I was walking one evening…when I observed a curved belt of taller grass. I followed this belt round and found that it formed a circle, complete except for a few breaks…At the present day there are not the slightest remains of a mound, nor indeed, are there any visible signs on the surface of anything at all. The only indication is the long grass, and that probably does not reveal itself all seasons of the year" (Crawford 1922a:198).

Inspired, Crawford dug a series of trenches across the barrow to better understand how the surrounding ditch had come to be filled and the mound levelled. A fifth barrow was then identified with the aid of a local labourer who drew Crawford's attention to another area with "a difference in the growth of the corn... It grew more thickly over what was evidently the ditch" (Crawford 1922a:203). This fifth barrow was not excavated, but Crawford traced the path of the ditch by bosing. To the best of my knowledge—beyond the initial publication of this discovery by Crawford himself—no subsequent scholar has identified this as what seems to be the earliest account of Crawford encountering and recognising the significance of a cropmark—though he doesn't use such terminology—and not only this but doing so from the ground. [463] Far from viewing such marks at a distance from the air, Crawford's first encounter with a cropmark was within touching distance and

[463] Though Crawford published the discovery in 1922, he excavated the fourth barrow after recognising the cropmark, so this is not wholly the case of Crawford retrojecting an interpretation after his later viewing of the RAF aerial photographs. In the same volume of the *Proceedings* Williams-Freeman reported that at another site the dry summer had "made visible several rings" on the ground which were "likely to have been disc barrows which have been levelled by the plough" (1922:288).

investigated through the embodied methods of excavation and bosing. This is especially significant, given that Barber argues that as late as 1923 Crawford expressed confusion over the mechanics of cropmarks, and demonstrated "little knowledge" of antiquarian explorations of cropmarks from the ground (2016:9). This is not to suggest that in 1920 Crawford manifested a complete theory of cropmarks—clearly this took time to develop—but rather to highlight how turning to early terrestrial experiences may prove vital links in understanding Crawford's later theories of the aerial.

This sense of tactile proximity can also be felt in three later prints in Crawford's photographic archive which show cropmarks from the ground (Figure 4.42,Figure 4.43 & Figure 4.44). The prints can be found in two archival boxes which at first glance bear no obvious relationship to the aerial; Box 3 which bears two labels reading "British Isles misc.3 London" and "Northumberland to Yorks. Wales 3", and Box 13 "Scotland the Wall". In two of the photographs, the traces of Roman forts are almost imperceptible, made legible only by Crawford's annotations, but in the third bold lines rise Levithan-like out of the uneven growth of the crop. These prints show cropmarks from a perspective that they are rarely photographed from or spoken of.[465] The silence, both on the existence of these prints and the above account is striking given the widespread interest in Crawford's aerial legacy. Accounts like this, and the prints highlighted above are significant not only because they cast Crawford's aerial work in an entirely new relationship with his terrestrial fieldwork, but also because of their physical locations; notes in the proceedings of a local club, or tucked away in boxes of terrestrial photographs. The prevalence of an established—near canonical—narrative of Crawford's early introduction to aerial archaeology via the route of his experiences in the RFC and then the observation of RAF photographs acts to preclude the exploration of alternative influences that might have contributed to his work.[466] Examples like this demonstrate the importance of an assemblage-based approach to archaeological archives, seeking out connections between photographs, archival sources and publications which are not always immediately obvious. I take up the question of the separation of Crawford's collection of aerial and terrestrial photographs in his photographic archive in Section 4.8, but for now I want to propose one further way in which the view from the ground might have informed Crawford's aerial perspective.

[465] Hauser reproduces Print 3.110 in her biography of Crawford, but offers no comment on its significance as a terrestrial image of a cropmark or its implications for Crawford's aerial work. Instead, she writes "These are the sorts of things a field archaeologist looks for, like the shadows cast by oats growing on uneven ground" (2008:65-66).

[466] It is also worth noting that it was only in seeking to understand Crawford's relationships with local archaeological societies that I turned to old issues of the Hampshire Field Club's *Proceedings*.

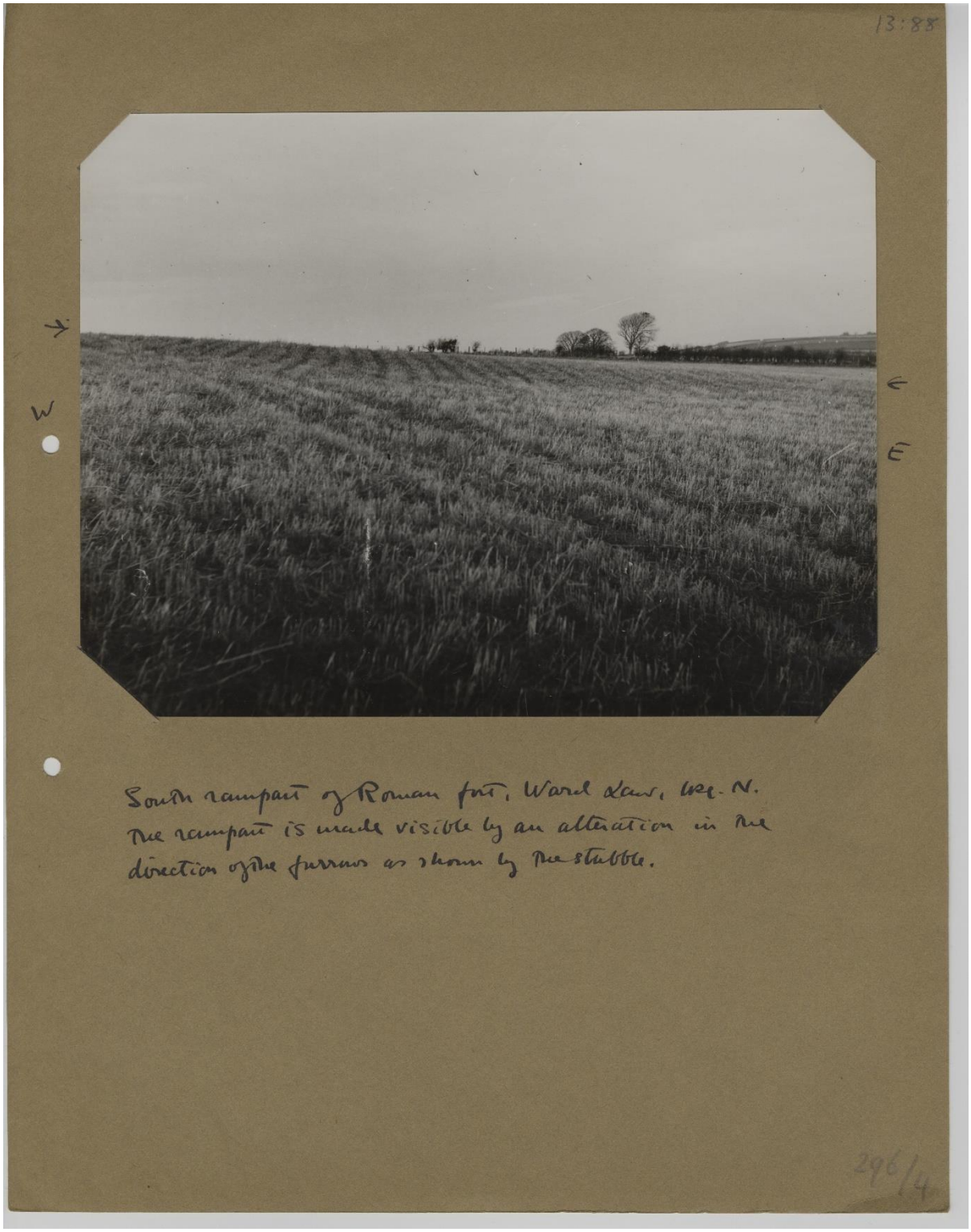


Figure 4.42 Roman fort at Ward Law. Print 13.88.



Figure 4.43 Bertha Roman fort. Print 13.131.



Figure 4.44 Cropmarks from the ground. Print 3.110.

The contrasting perspectives from the ground and sky are not the only examples of Crawford drawing photographs of the same site into dialogue with each other. The historian of aerial archaeology JK St Joseph argues that;

> Crawford…quickly recognised the importance of choosing the conditions of lighting, the state of growth of vegetation and the time of day calculated to yield the most telling [aerial] photographs. These points were illustrated by pairs of photographs of a given site seen in Summer and in Winter, with diffuse lighting beneath cloud cover and in bright sunlight…in the oblique light of morning or evening and midday (1981:7).

Print 10.22—two aerial photographs of a Roman Villa near Ditchley—is one such example (Figure 4.45). In the 'Summer' print the outlines of the building are starkly visible to even the most unschooled observer, while in 'Winter' the clear outlines have faded into the ground. Pairings of prints like these offer a very different perspective to Wickstead and Barber's (2012) analysis of temporality of aerial survey. Wickstead and Barber speak of aerial survey as disrupting time and space through the rapid capture of a series of "fragmented sequences" of images akin to the stop-motion work of Eadweard Muybridge (2012:81-82). Though Wickstead and Barber are describing more contemporary forms of archaeological survey—in Crawford's day aerial photography was more concerned with taking "carefully targeted, individual images" (Barber 2015:37)—their observation that attending to the temporality of aerial survey can disrupt the established image of the single totalising god's-eye perspective is worth adapting. The two prints held together on a single mount speak instead to a durational perspective; tracing the slow emergence of patterns of visibility and invisibility in the crops through the assemblage of individually-taken photographs, each of which offer partial rather than total glimpses of a site (cf. Aldred 2019). As the aerial photographer George Allen wrote to Crawford; "the time of day, season of year or change of crop or weather conditions make the search unending…there always remains some detail undisclosed" (MS Crawford 59.7; cf. Hauser 2008:168). This durational view, as I demonstrate in Section 4.8, bears a direct relationship to the material form of Crawford's photographic archive.

While St Joseph expresses surprise at the speed at which Crawford recognised the importance of the shifting seasons for aerial archaeology, I would suggest that Crawford had already been exposed to the importance of maintaining a sensitivity to the seasonal fluctuations of crop growth through Williams-Freeman. There was a rhythm to fieldwork on the ground that required the archaeologist to move in tune to the beat of the seasons. Tracing the course of a Roman road was not simply a matter of striding off to follow evidence beneath one's feet, one had to be in the right place at the right time;

The early spring for the woodlands, when the leaf is still off and the fern is not yet up but all the ground is full of flowers; the lovely changing lights of April or the blazing days of summer for the distant views and the fresh hill-tops…the crisp days of winter, when the fields are bare of crops are the time to trace a Roman road or for a long tramp upon an ancient trackway (Williams-Freeman 1915: xxi-xxi).

Crawford would echo Williams-Freeman's words in *Archaeology in the Field*. The best time of year to trace a road was between January and May before the crops grew too high. March was the perfect month; "The vegetation then is at its lowest, and every fold in the ground plainly visible. Especially in the still, low afternoon sunlight…ideal for photography" (Crawford 1953:62-63; cf. Hauser 2008:65).

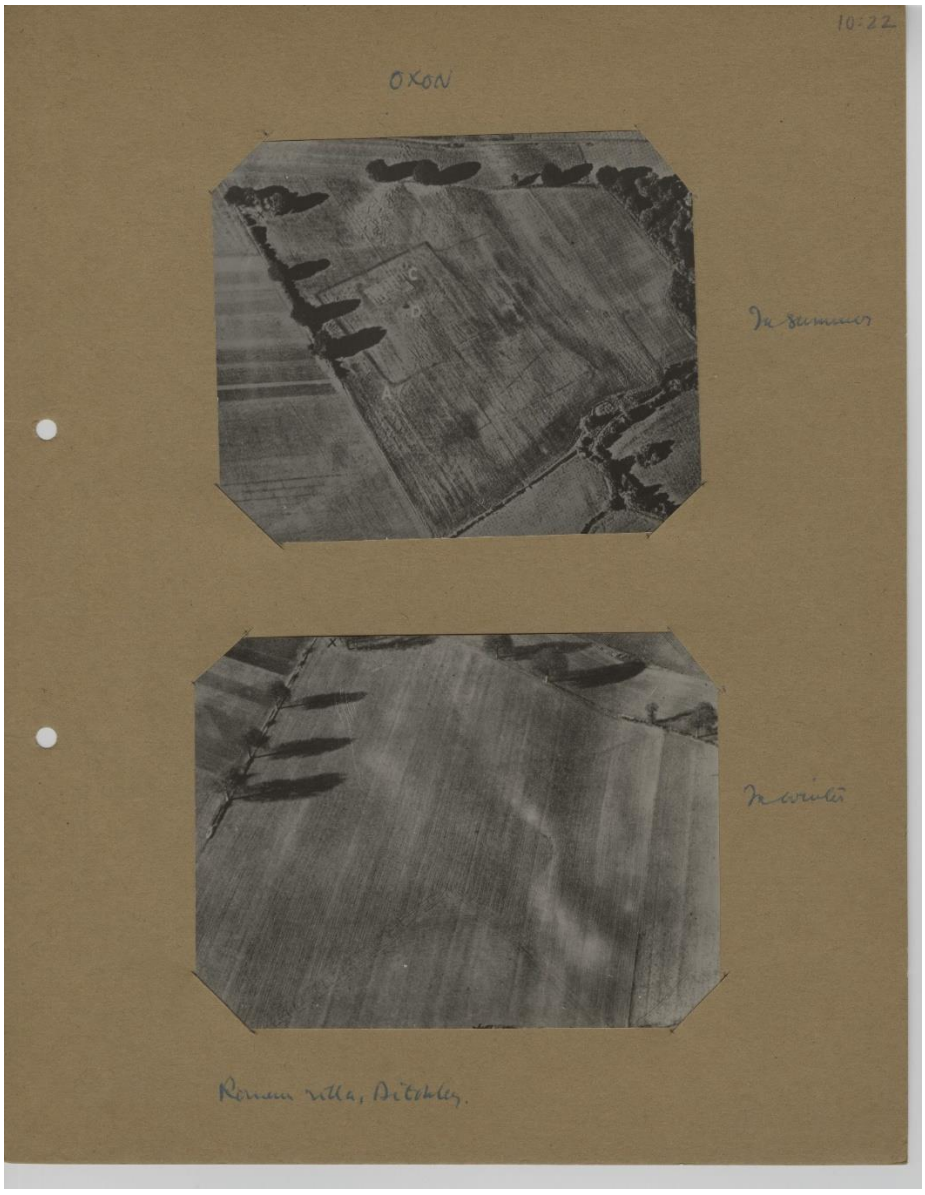


Figure 4.45 Summer and Winter. Print 10.22.

4.7.3 Shadowsites

Unlike cropmarks which rise and fall with the shifting seasons, shadowsites swim in and out of existence on a much finer temporal scale; becoming visible as the angled rays of a rising or setting sun sweep across the undulations of a landscape, each dent or rise casting a shadow. Much like cropmarks to catch a shadowsite on camera requires a particular confluence of archaeologist, landscape, time and weatherworld. "Lynchet time" Alexander Keiller wrote to Crawford on the back of a postcard demonstrating just this combination (Figure 4.46).[467] In the postcard –a photograph taken by Keiller himself—the haze of the early morning is visible on the horizon as the low light scribes out the shapes of the landscape.[468] More striking still—at least to my eye—are the postal marks impressed into the top of the card which seem to mimic the forms of lynchets, casting their own shadows like the surreal cloudscapes Crawford encountered in the First World War. Like the cropmarks in the previous section, Crawford's photographic archive bears several more examples of shadowsites seen from the ground. In Print 5.20 in the sharp angled light the rough tussocks of grass in the foreground become an alien landscape, capturing the attention to the extent that Crawford had to label the faintly visible cultivation terraces in the background (Figure 4.47). In Print 3.111 the attempt to photograph similar terraces was defeated by the flat midday sun (Figure 4.48).

[467] Hauser references this phrase but doesn't mention the postcard (2008:80).

[468] The postcard was sent in September 1939—the same month that Crawford published the report of his aerial reconnaissance over Scotland. Crawford and Keiller were notoriously uneasy collaborators, yet I wonder if Keiller was spurred to send this memento of their work together after reading Crawford's article?



Figure 4.46 Lynchet Time. Print 5.1.

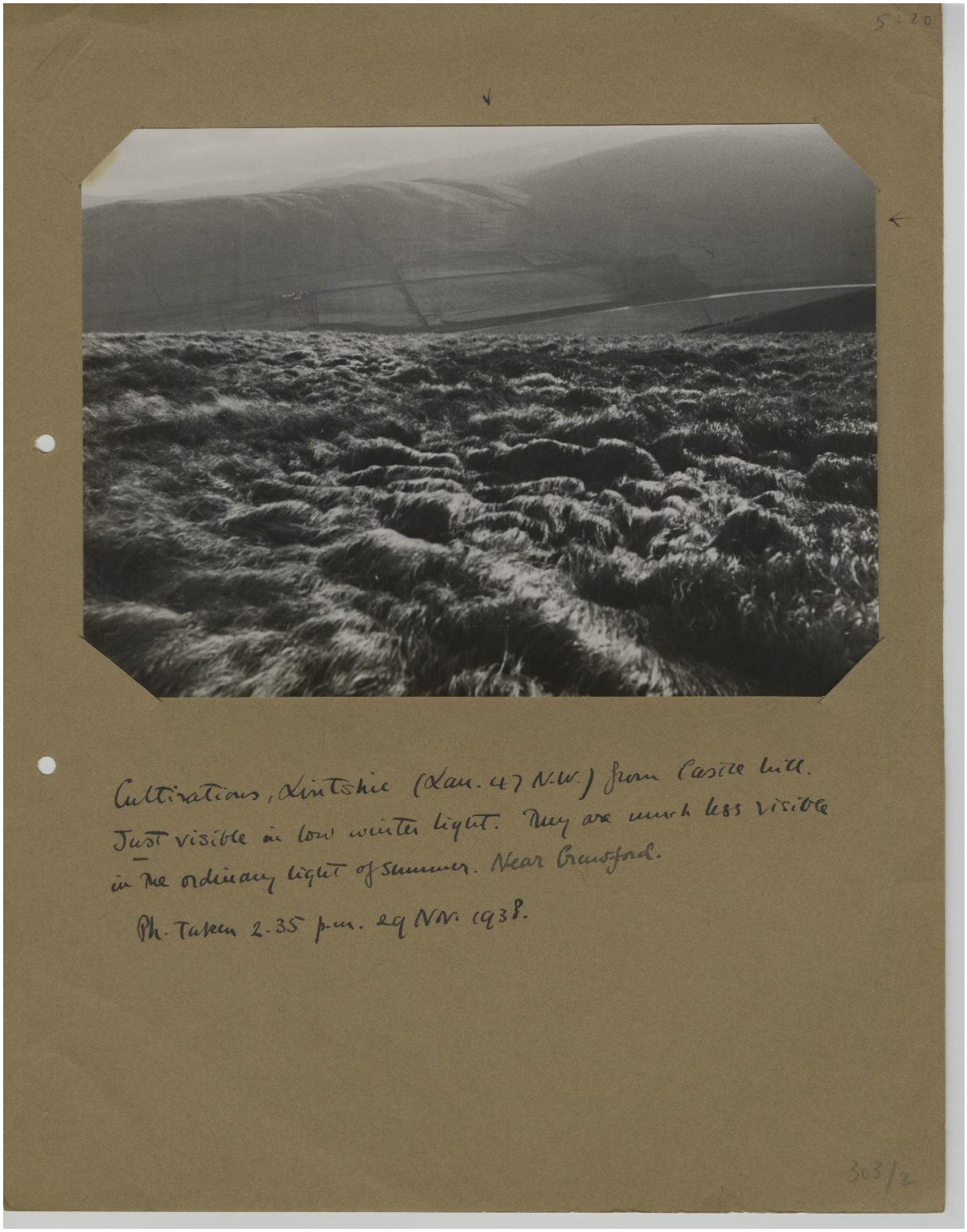


Figure 4.47 Cultivation terraces in angled light. Print 5.20.

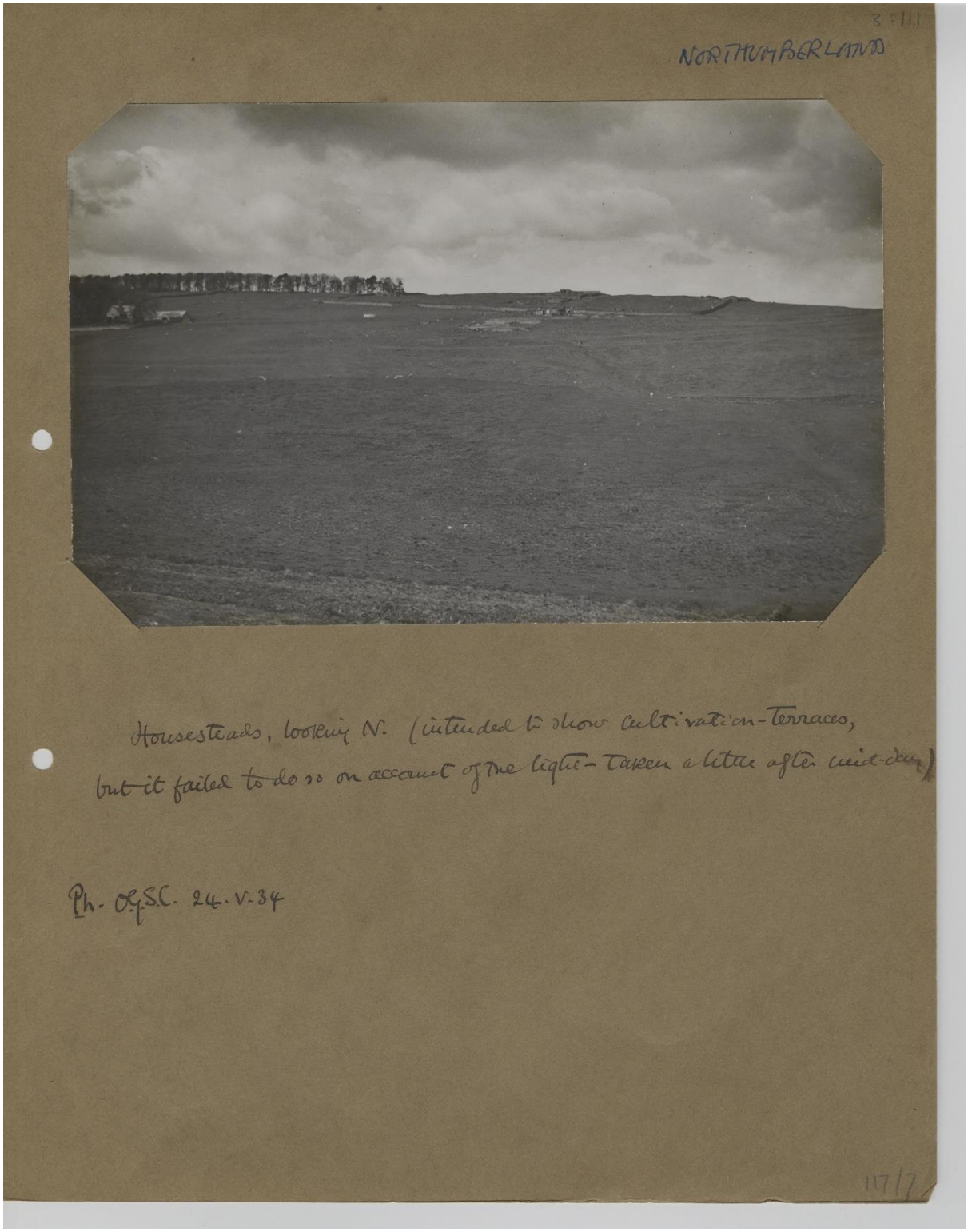


Figure 4.48 Cultivation terraces in flat light. Print 3.111.



Figure 4.49 Plough ridges. Print 10.41.

Print 10.41 shows a series of ploughed ridges in a field in Cumberland, the lines of the furrows striking away towards a vanishing point in the distance (Figure 4.49). On the left-hand side of the print, the ridges and furrows are sharply demarcated by bands of shadow, while on the right they fade into a uniform grey mass of earth. Two things stand out about this print. The first is its physical location, tucked among the aerial photographs of Allen and Alington in Box 10. The second is the annotation provided by Crawford:

Potato Ridges at BUSH LYNE [sic] near Carlisle, showing different effect of lighting from different angles. The furrows on the right are almost invisible because looked at with [sic] the Sun. This illustrates the chief principles of shadow-sites.

The presence of this print in Box 10—the sole terrestrial view amongst a host of aerial photographs—is almost the inversion of the unacknowledged presence of Crawford's terrestrial photographs of cropmarks disguised amongst a similar series of photographs from the ground. Yet this print too has gone unacknowledged in accounts of Crawford's photographic and aerial practice. As with Figures Figure 4.42, Figure 4.43 and Figure 4.44, this photograph provides a perspective that holds little in common with the standard descriptions of a shadowsite. Unlike the vertical aerial view, in which furrows would appear as contrasting flat bands of black and white spread horizontally across the flattened plain of the earth like markings on a map, viewed from the ground the furrows gain a dimension of depth.[469] They rise and fall, undulating across the vertical plane, and Crawford's physical proximity to the soil is testified to by the detail that can be perceived in the texture of the soil, in the clods of earth that roll off each peak. Looking at this print one can almost feel the warmth of the sun, the crunch of dried out earth, the skittering of rocks underfoot. And it is this relationship between body, camera and fluctuations of the light that offers another avenue to draw together the view from the ground and the view from the sky.

On 10th July 1953, the archaeologist Richard Atkinson was preparing to photograph a seventeenth century carving on Stonehenge as part of a "full scale field and photographic survey" of the site (MS Crawford 101.104). As the evening light raked the stones something unexpected occurred. As Atkinson gazed "not directly at the stone itself but at the image on the glass of his reflex camera" he suddenly became aware of the presence of a previously undetected carving of a dagger on the face of Stone 53 (Crawford 1954:25). Stuart Piggott gave a colourful account of the discovery in a private letter to Crawford; Atkinson "thought he'd got the horrors (Is this a dagger I see before me?)" (MS Crawford 101.63). In the following days several more carvings were discovered, the first of which were found by ten-year old schoolboy David Booth; "a small and tiresome boy was told to bugger off

[469] "The aerial view flattened out the landscape, pictured it like a map" (Hauser 2008:34).

and bloody well look for more axes...of course he came back in five minutes announcing he'd found several" (MS Crawford 101.63).

The discoveries fascinated Crawford, and between 1953 and 1954 his correspondence is dominated by a slew of letters and photographs exchanged with archaeologists at the site as they scrambled to capture the best photographs of the rock art.[470] The correspondence concerning the discovery is held in MS Crawford 101 in the Weston, while the photographs can be found in Box 9 of the photographic archive. In *Archaeology in the Field* Crawford wrote about the importance of photographing carved stone in a variety of lighting conditions; "one has to take each side in a different light, which involves many visits" (Crawford 1953:38). The perfect light for such work—as with cropmarks—was "sunlight falling at an angle of 45 degrees or less" (Crawford 1953:38). Crawford made three independent trips to Stonehenge hunting for the perfect light, the first shortly after the initial discovery on 27th August 1953, then on New Year's Day 1954, and a final trip on 14th April 1954. In his article on the discovery Crawford makes multiple references to the prevailing weather conditions, New Years' Day in 1954:

> [W]as a perfect day for the job…windless…the sky cloudless, and the low sun lit up the carvings beautifully. I went first to look at Stones 3 and 4; the axes were visible on both stones, but it was probable that the lighting of Stone 3 would be better in about 40 minutes' time, and on Stone 4 about an hour later, so I walked about looking at those other stones on which the light was shining at the right angle (Crawford 1954:29).

Throughout the course of his photographic session Crawford describes the carvings going "dead" under the midday sun forcing him to abandon his work, before "suddenly" springing back into existence (Crawford 1954:30) an experience not dissimilar to watching shadowsites emerge as if out of nowhere.[471] From a combination of the prints themselves, Crawford's notes in his negative register and in exchanges with other archaeologists it is clear that the photography took on a decidedly explorative character. Multiple exposures of the same subject matter are recorded in the negative register as being taken for direct comparison with each other, with Crawford leaving notes on the most successful (Figure 4.50 & Figure 4.51). At other times photographs taken by Crawford are physically juxtaposed in the arrangement of the archive with those taken by other photographers. To take Print 9.11 (taken at 11:45 am on New Year's Day 1954), Crawford angled himself at the very edge of stone 53, allowing the morning sunlight to spread across the face of the rock, casting the edge nearest him into deep shadow. In contrast the far edge of the stone is almost

[470] The discovery would lead to Crawford's final monograph *The Eye Goddess* (1956) a volume that has been studiously ignored ever since its publication.
[471] A comparison might also be drawn with Barber's (2016) work on the connections between cropmarks and spirit-photography.

burnt out in the print, leaving only a thin strip in the centre where the angled light picks up the texture of the stone's surface revealing the indentations of the carving (Figure 4.52). In Box 9, this print is immediately followed by a photograph taken by John Dean in 1957—again of Stone 53—this time using torchlight at night to recreate the same effect (Figure 4.53). Crawford compiled lists of the exact times each carving became visible (MS Crawford 101.95) and received letters with similar listings in return along with exhortations to visit the site at the specified times to take further photographs (e.g., MS Crawford 101.71, 101.88).[472] If in Chapter Two I argued that archaeology's visual grammar prescribed ways of moving and excavating here it is clear that the shifting nature of the weatherworld plays just as large a role in dictating the rhythm of a photographers movement.

Thinking through some of the implications of these photographs requires drawing on an understanding of both Crawford's aerial and terrestrial work. Like the examples discussed in Section 4.6 intimacy is key to the work of the photographs, both in spatial terms of examining small details in close proximity, and in the temporal sense of returning to a place over and over again. Much like Allen's description of the unending task of photographing cropsites—each passing season or change in light was liable to reveal some new feature—photographing the carvings was an extended durational process. Crawford foresaw this in 1954 when he wrote "To extract all [the carving] has to tell us will take a long time and many photographs in different lights and from various angles" (1954:29). Unlike accounts of archaeological photography which argue that individual images were intended to act as carriers of 'facts', here it is only in the accumulation and comparison of multiple related photographs that something approaching certainty might be reached. It is notable too, that on several occasions in his negative registers Crawford borrows from the terminology of aerial photography to annotate his terrestrial photographs. The entry for exposure 909/4 for example reads "Stone 9A (vertical)" whereas exposure 909/5 is "Stone 9A (oblique)". Elsewhere Crawford explicitly compared the process of photographing carved stone to the work of an aerial archaeologist documenting cropmarks; "Shadow-sites are…revealed by the shadows they cast when seen in the low light of a rising or setting sun. There is of course nothing mysterious about this process…Exactly the same principle is employed in photographing inscribed stones and carvings in low relief" (1953:47; cf. MS Crawford 101.205).

[472] This was complicated slightly by the fact that the site closed to visitors before the evening sun could reach a sufficiently low angle.

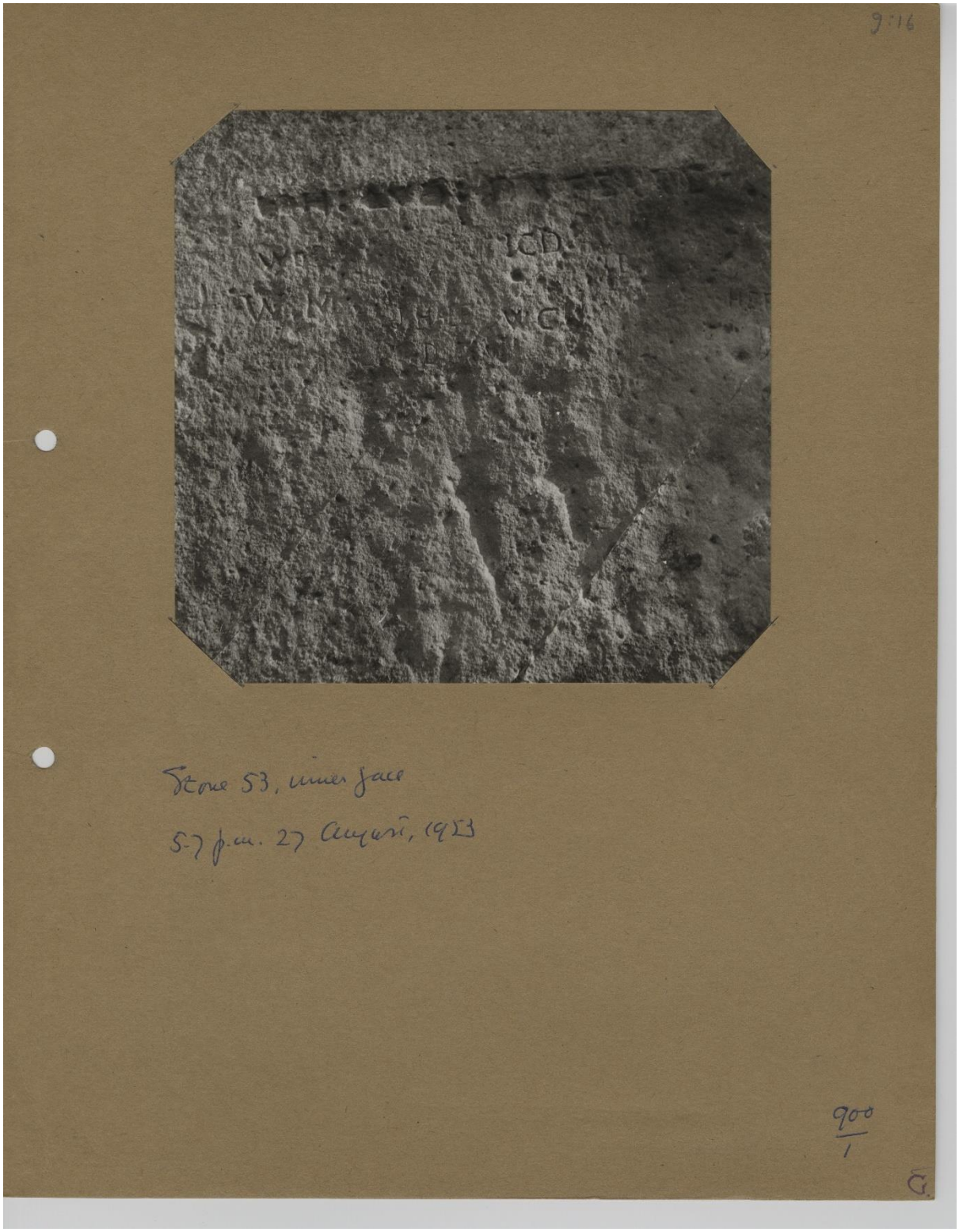


Figure 4.50 Is this a dagger I see before me? Print 9.16.

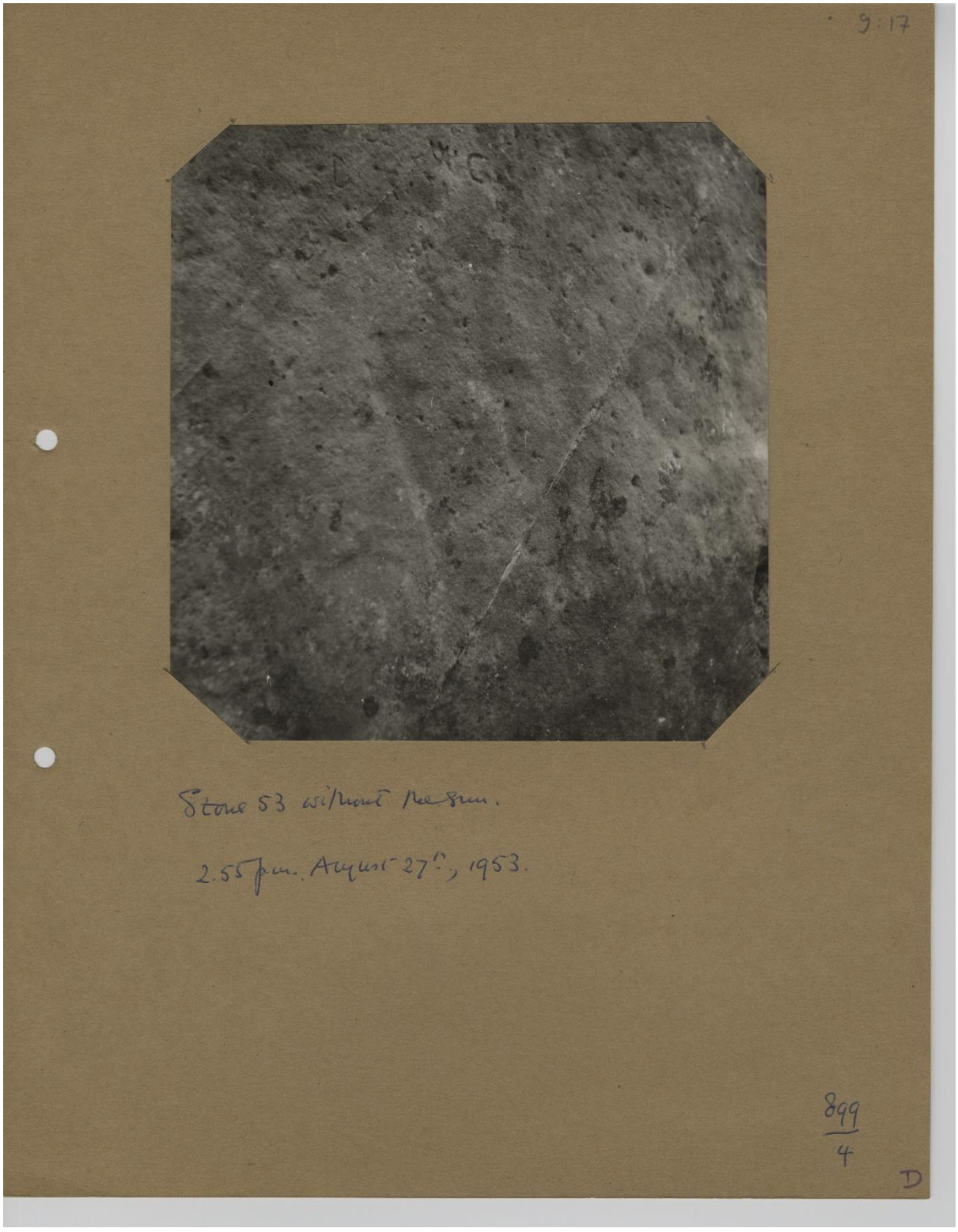


Figure 4.51 Stone 53 without sun. Print 9.17.

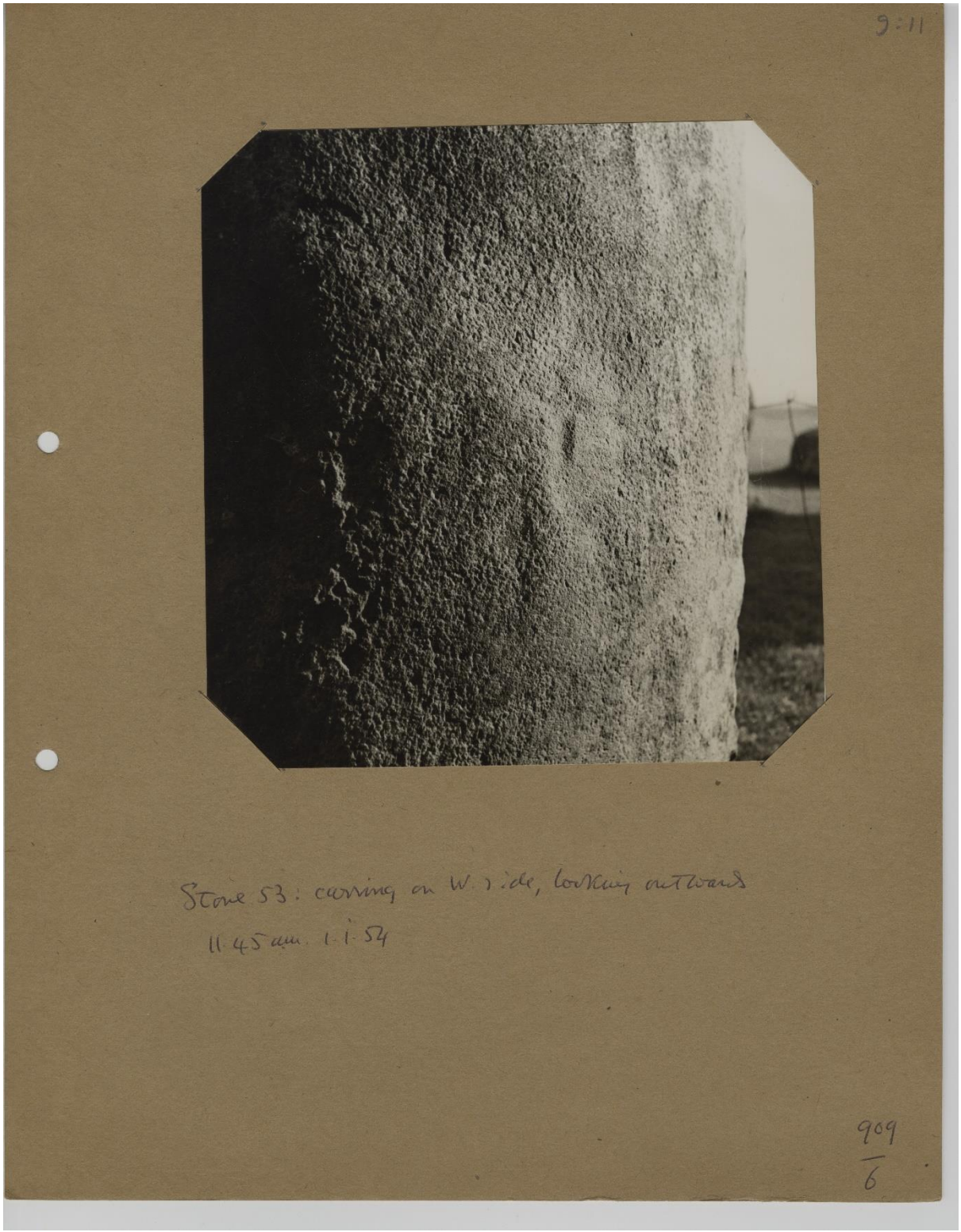


Figure 4.52 Stone 53 in angled natural light. Print 9.11.

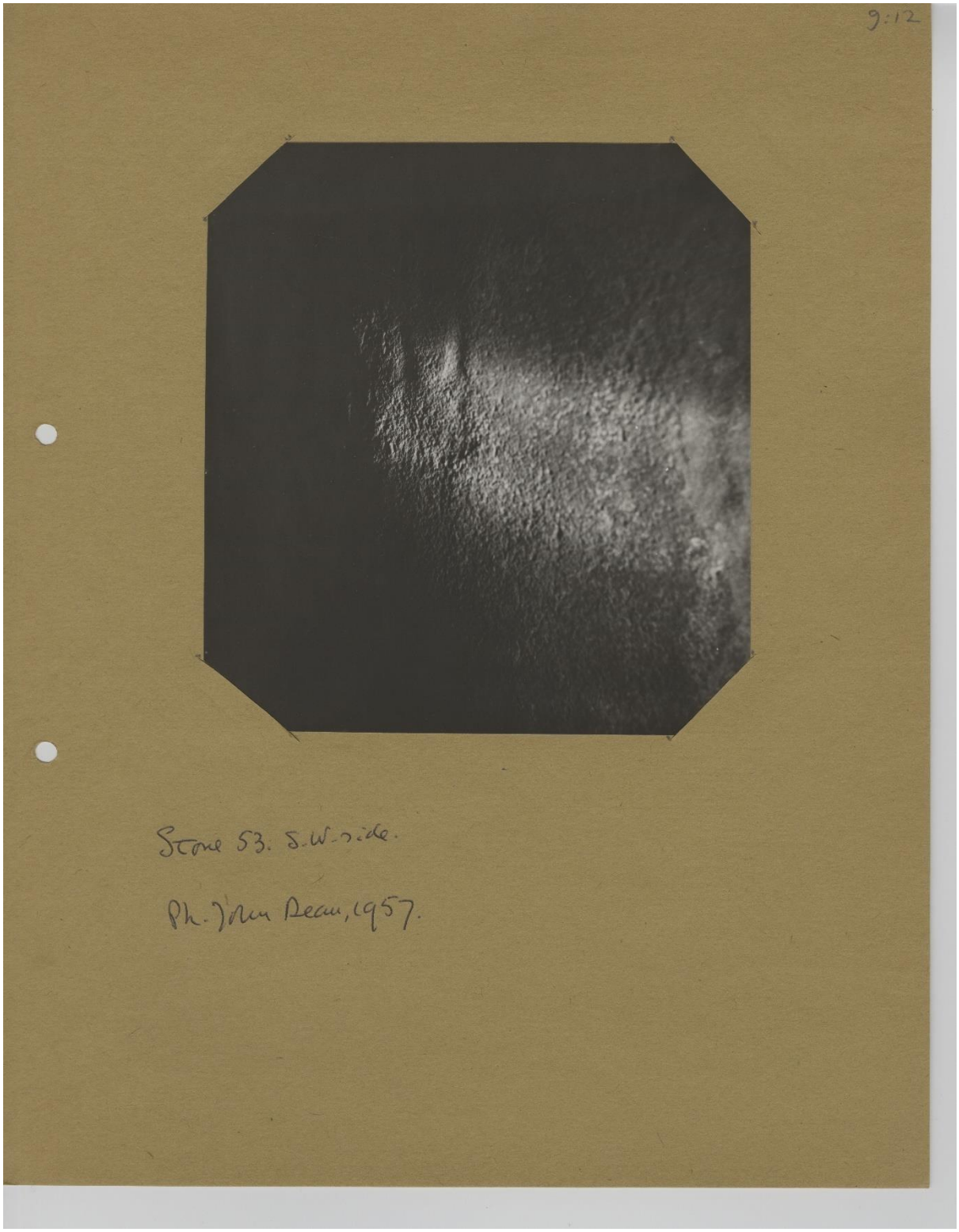


Figure 4.53 Stone 53 in angled artificial light. Print 9.12.

It is not just in the taking of these photographs that techniques on the ground and sky mirror each other. Much like C.J.P. Cave's musings during the First World War that photography could make the imprints of waves in sand appear like clouds, and vice versa, so too do Crawford's tightly cropped studies of sarsen wend towards optical illusion. At a glance the dressing of the recumbent stone 59a when caught in the low angled light is reminiscent of the ridged furrows left behind by ploughs (Figure 4.54), or in Print 9.119, were it not for Crawford's foot, one could almost see a trench weaving its way through the front lines of the Somme (Figure 4.55). Cropped closely enough the distance of the aerial and the intimacy of the close-up fold into each other.[473]

I want to add one final point of consideration, this time with the caveat that I am now fully in the realm of speculation. Amongst the correspondence in Box 101 in the Bodleian are three sets of paired prints each pair showing slight variations in tone, contrast and composition (Figure 4.56). The presence of these duplicates most likely suggest that Crawford was experimenting to produce a print which best brought out the details of the carvings as in Figure 4.51, Figure 4.52 and Figure 4.53. However, there is a small possibility that these represent the making of stereoscopic pairs (Martyn Barber, Pers. Comm). Barber (2015) has explored the history of the stereoscope in aerial photography, and has previously concluded that there is no evidence Crawford utilised the technique. The only reference that I found thus far–beyond the existence of the prints in MS Crawford 101—to stereoscopic photography in Crawford's archive is a letter sent to Crawford in 1947 by Edward Lewis, which addresses Crawford as "an expert on aerial photography of a stereoscopic nature, particularly in connection with Town and Country Planning" (MS Crawford 22.44). This in itself is not sufficient to draw any conclusions, yet does provide an intriguing line of future enquiry into Crawford's aerial work, one that –as with Crawford's discoveries at Roundwood in 1920—stems not from the archives of Crawford's aerial work, but from the work he undertook on the ground.

[473] Crawford himself seemed to play with this perspective. Print 25.24 shows a "cliff" in the sand that was only 12 inches high. Crawford was so pleased with the optical illusion that he used the print as a Christmas card in 1953.

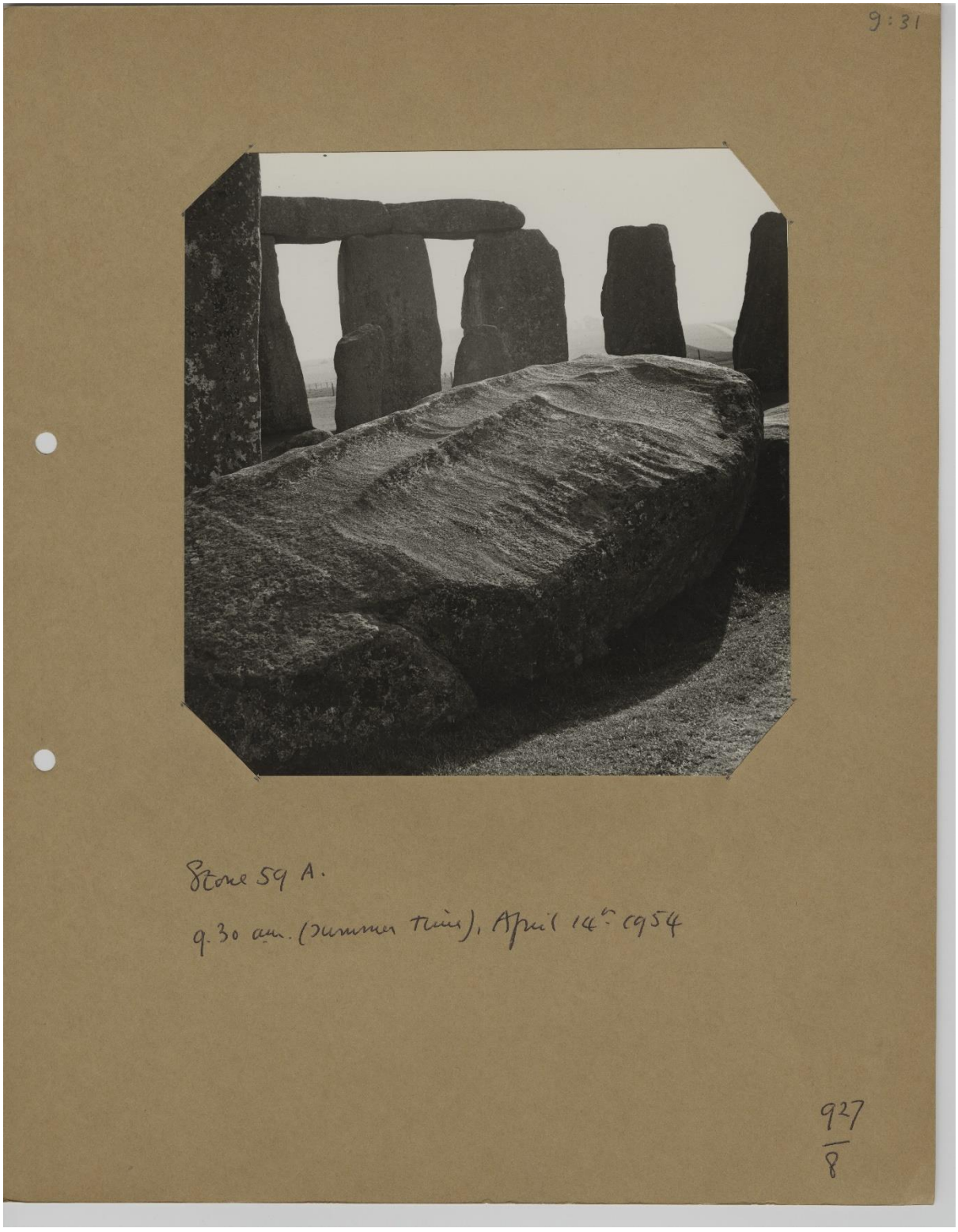


Figure 4.54 Sarsen or plough ridges? Print 9.31.

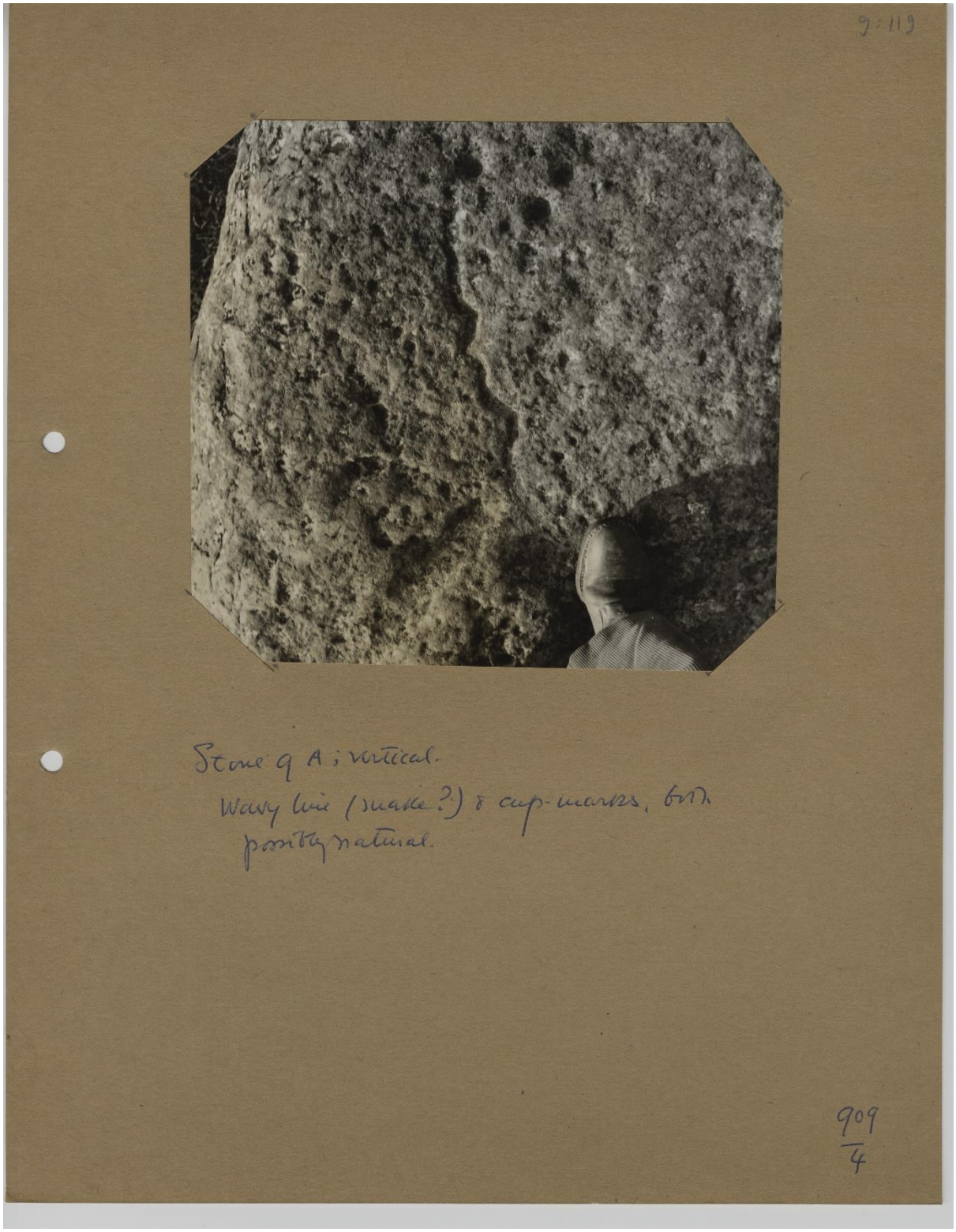


Figure 4.55 An optical illusion. Print 9.119.



Figure 4.56 Possible stereoscopic pair. Unnumbered prints in MS Crawford 101.

4.8 Assembling an Archive: Looking Up, Down and Around

I began this chapter arguing that my task was to draw together the view from the ground and the sky to make manifest a wider pattern of connections across Crawford's photographic archive, and as a means of reframing his aerial practice. In this final section I explore a tranche of Crawford's aerial fieldwork that has garnered significant scholarly attention. I present existing accounts of this fieldwork as evidence of the extent to which Crawford's aerial legacy has distorted the perception of his actual practice, offer an alternative vision of Crawford's research process, and then explore the extent to which the physical structuring of the photographic archive in combination with Crawford's aerial legacy has acted to obscure connections between his fieldwork on the ground and in the sky.

On 6 June 1939, piloted by Geoffrey Alington, Crawford flew from Southampton to Lanarkshire. As part of the wider programme of revisions to the Ordnance Survey's one-inch map series Crawford had undertaken a period of ground-based fieldwork around Crawford in South Lanarkshire in the 1920s (Crawford 1955:169). In 1924 Crawford succeeded in driving the 'Period Map' of Roman Britain to publication at the Ordnance Survey, and its immense popularity led to demands for the publication of further editions (Hauser 2008:70). Crawford spent snatched moments throughout the 1930s sporadically carrying out a ground-based survey of Roman roads and forts in the Scottish borderlands preparing for the third edition of the 'Period Map'. He had managed to wrangle a short three-day flight over the region in 1930 (Crawford 1930), and hoped to add a final series of aerial observation into the mix (Crawford 1939c).[475] Crawford's programme of flights in 1930 and 1939 are hailed as a "groundbreaking" moment marking the first sustained programme of aerial investigation over Scotland (Cowley and Gilmour 2005:51; Jones 2005; Aldred 2019; cf. St Joseph 1976). But in 1939 when Crawford approached the Ordnance Survey to get Alington's expenses reimbursed, he was asked if it had not been possible for him to do the same work by taxi (Crawford 1955:269-270; cf. Bowden 2001:37).[476] Crawford was scandalised, both at the implication that he was flippantly attempting to abuse Ordnance Survey funds and at the failure to understand how the aerial perspective related to ground-based fieldwork. It was not, he wrote in his autobiography "just another way of getting over the ground, but an attempt…to obtain new information by another

[475] At the outbreak of the Second World War Crawford's disgust with the management of the countryside that he had roamed as a youth drove him further and further north. The war disrupted Crawford's northern ambitions too; the printing of the completed third edition Map of Roman Scotland was halted by the bombing of the Ordnance Survey offices in 1940 (Crawford 1953:54).

[476] Alington offered to undertake the flying and photography essentially for free, all he asked in return was the reimbursement of his petrol and oil expenses (Crawford 1955:269). Accounts of Crawford's itinerary in Scotland and the outcome of this flight can be found in *Antiquity* (Crawford 1939c) and in *Said and Done* (1955:268-271) while the results of his ground-based fieldwork were first presented as the Rhind Lectures in Edinburgh in 1943, later published as *Topography of Roman Scotland North of the Antonine Wall* (1949).

means" (Crawford 1955:269). Frustrated, Crawford eventually funded the entire venture –to the tune of £27—out of his own pocket (Crawford 1955:270).[477]

Crawford's comment about the nature of the relationship between evidence from the aerial and terrestrial perspectives forms the main basis of my analysis in this section, but one essential point must be clarified before I can proceed. Both Jones (2005) and Aldred (2019) make the assumption that the aerial photographs taken during the 1939 flight were made by Crawford.[478] In Crawford's report on the 1939 reconnaissance in *Antiquity* he is very clear that Alington did the flying, "took all the photographs" and even spotted most of the sites (Crawford 1939c:280-281; cf. St Joseph 1976). This misunderstanding can be attributed to the wider misconception highlighted by Bowden (2001) and Barber (2015) surrounding the extent to which Crawford actively took photographs from the air as opposed to collecting them and encouraging others to take them. Jones (2005) also expresses surprise at the fact that during the 1930 flight Crawford did not attempt to take any photographs at all (cf. Barber 2015:36). The explanation for this lies not in the sky but in Crawford's survey work on the ground. This leads neatly into my main point: in each of the key studies explicitly exploring the process of Crawford's aerial work in Scotland neither Cowley and Gilmour (2005), Jones (2005) or Aldred (2019) recognise that Crawford's aerial survey was accompanied by terrestrial work. This manifests the broader pattern of separation between accounts of Crawford's aerial and terrestrial work, and the general neglect of his terrestrial photography.

Among scholars exploring Crawford's aerial legacy Barber is unique in that he consistently recognises that Crawford did not see aerial survey and photography as a replacement for fieldwork on the ground but understood them to be complementary techniques (Barber 2011:136, 270; cf. Barber 2015, 2016). Crawford's contemporaries were very clear on this point, as expressed in a review of Crawford and Alington's venture published in *Nature:*

> Although by this time the value of the aeroplane in archaeological investigation stands in little need of further testimony, a record of recent discovery in Roman Scotland…affords striking evidence of how its use, and *intensive examination of the terrain from the ground itself, combine with and supplement one another*. (Anon. 1939:543).[480]

[477] Just over £1,000 in today's money. Figure calculated using the National Archives Currency Converter 02/12/2021.

[478] The aerial photographs taken during the 1939 flight are held by Historic Environment Scotland (Aldred 2019). I have been unable to access these due to the pandemic, but comparison with prints in Crawford's photographic archive would present a very promising line of future enquiry.

[480] Emphasis mine.

Barber has also noted Jones' confusion over Crawford's failure to take photographs during the 1930 flight, and offers the following explanation; "Crawford's 1930s flights *were all about identifying sites and placing them on the map as precisely as possible, highlighting those that warranted a ground visit.* No photograph was necessary, and in any case, Crawford would not have been able to take the 'right' kind of photographs." (Barber 2015:36).[481] The 'right kind' of photographs being high-quality vertical—rather than oblique—views which could then be used to prepare plans of the sites. Barber cites Crawford's fieldwork following the discovery of 'Celtic' field systems on the RAF photographs in 1922, and his later groundwork for *Wessex from the Air* as examples of Crawford's working process: First Crawford would gather the necessary aerial views, then he would walk the landscape "annotating each print in the field" as well as making notes on a map before preparing "an explanatory diagram" of each discovery (Barber 2015:39).

In Barber's account is an assumption of the primacy of the aerial view as a tool for directing the subsequent movements of the field archaeologist on the ground. Indeed, the relationship between aerial archaeology and ground-based practice in general is most commonly discussed in relation to ground-truthing; conducting field survey or excavations to confirm the presence of an archaeological feature observed from the air. The view from the sky could certainly be deceptive as famously demonstrated by Crawford in an anecdote in which he proved that a series of circular marks that appeared in an aerial photograph to resemble round barrows, were actually the grazing marks left by goats tethered on a leash to a central pole (D.R. Wilson 1982:165; Deuel 1971:25). There are several examples in Crawford's archive of similar occasions where the totalising certainty of gaze promised by the aerial view is frustrated by the reality on the ground. The pairing of prints 13.109 and 13.110 is one such instance. Print 13.110 shows a Roman fortlet spotted from the air during Crawford's 1939 flight (Figure 4.57). The previous print however, taken from the ground, shows a series of water bowls laid out for cattle, that when observed from the air give the appearance of a similar fortlet (Figure 4.58). Another example comes in the form of two newspaper cuttings mixed in amongst the aerial photographs of Allen and Alington in Box 10. Print 10.34; a newspaper cutting from Life Magazine shows a man holding aloft two clumps of grass, one sheath "half again as heavy and long as the untreated clump" (Figure 4.59). A second newspaper clipping from the same issue of the magazine shows an aerial photograph of a field treated with the new ammonia-based fertilizer with the words "Anhydrous Ammonia" spelled out in the burgeoning growth of the treated crop

[481] Emphasis mine. This argument seems negated to some extent by the record in Crawford's negative register of him attempting to take aerial photographs using his Voigtlander camera (See Section 4.2).

(Figure 4.60). The use of new fertilizers could mimic the reaction of crops to archaeological evidence under the ground's surface.

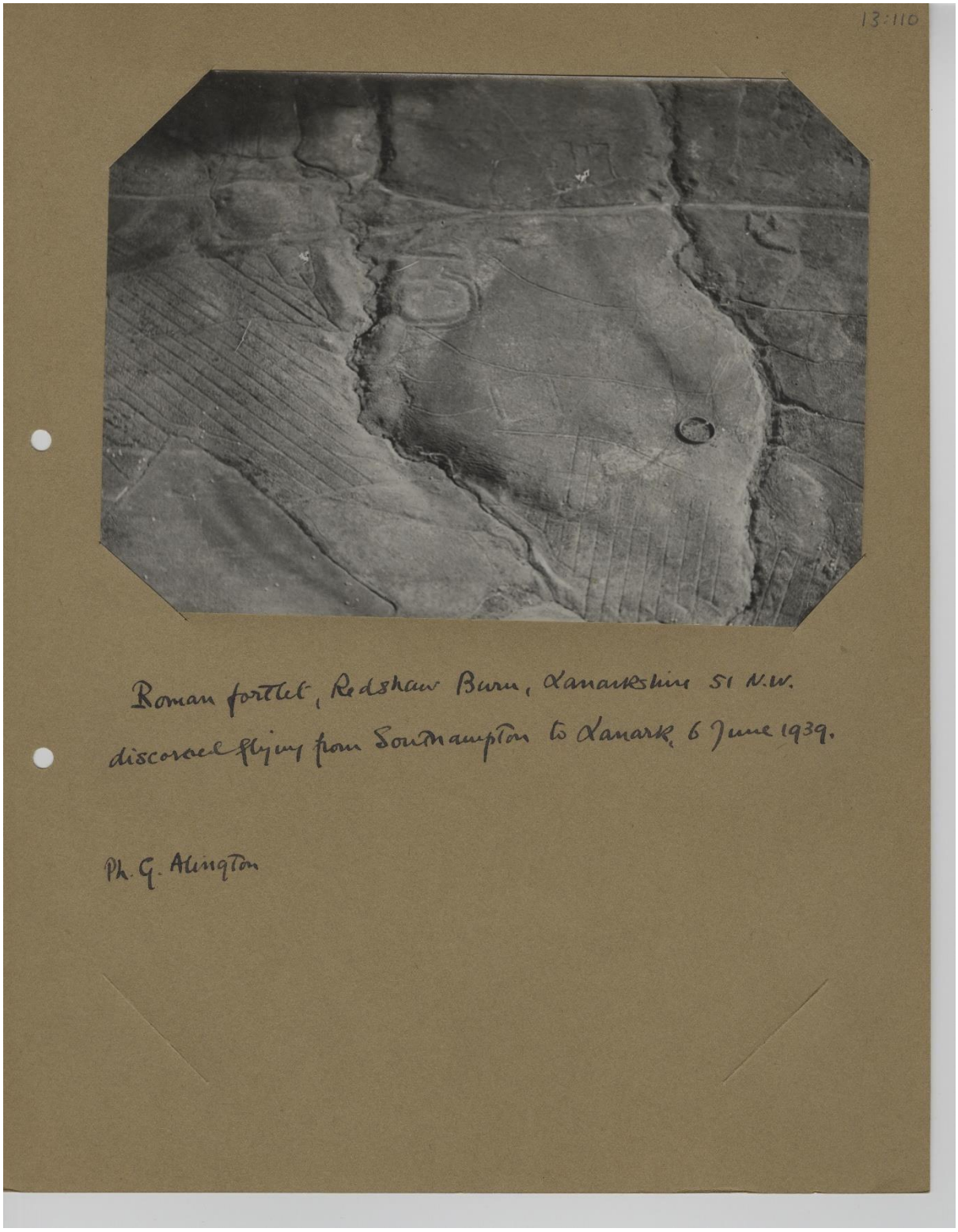


Figure 4.57 Roman Fortlet. Print 13.110.



Figure 4.58 An 'amusing deception'. Print 13.109.

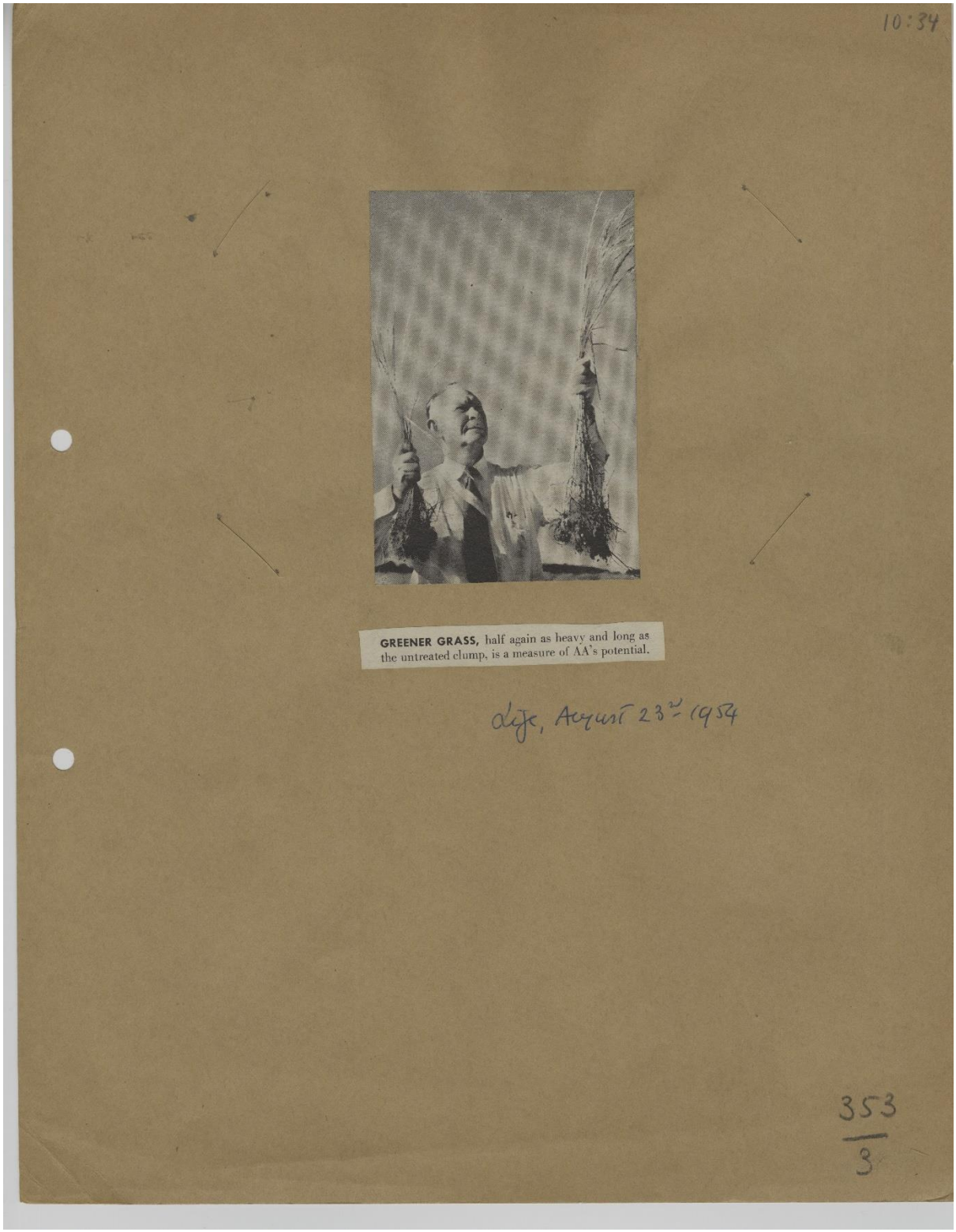


Figure 4.59 Greener Grass. Print 10.34.

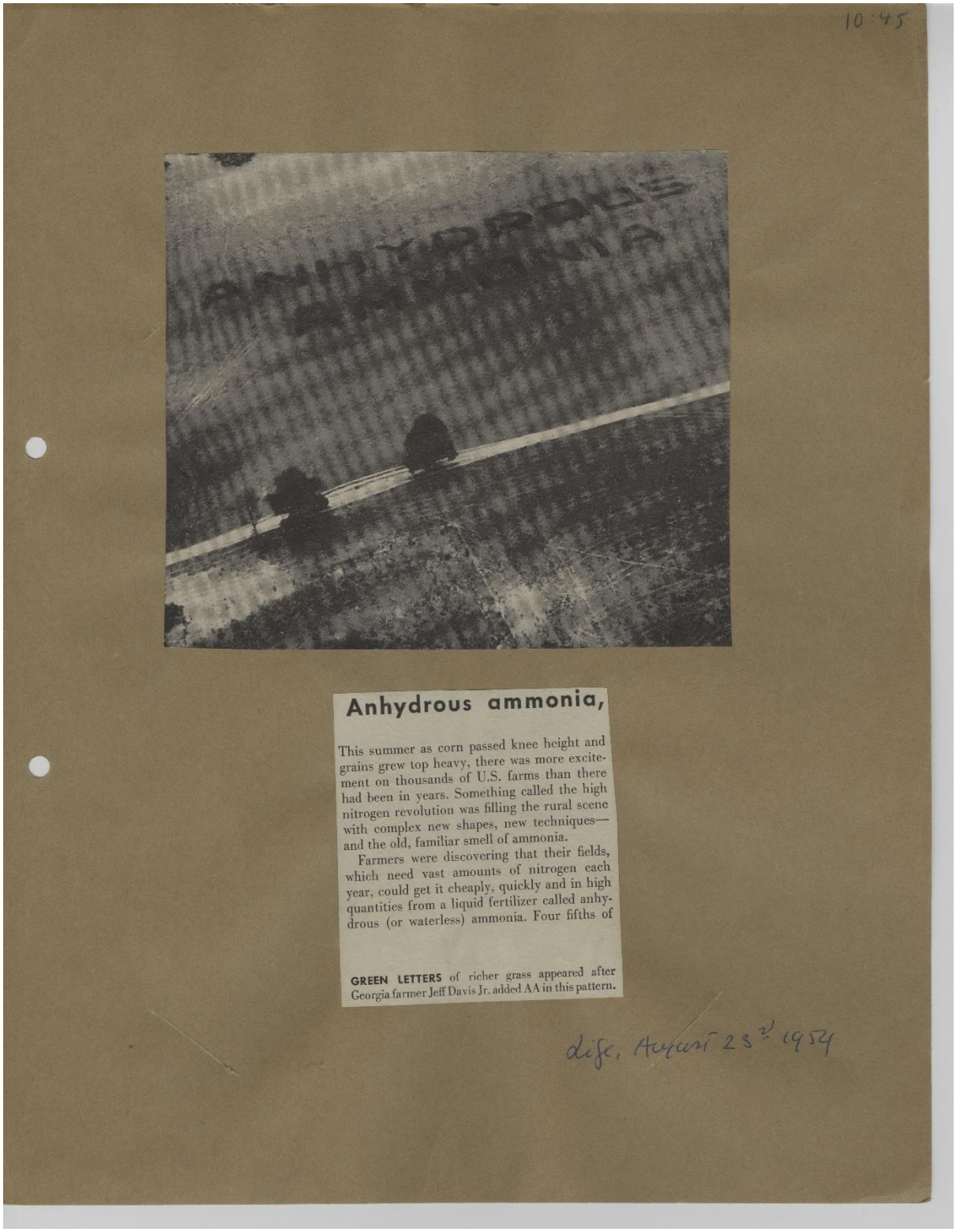


Figure 4.60 Anhydrous Ammonia. Print 10.45.

Ground-truthing exercises are indeed vital in distinguishing these false trails from real archaeological features. But I would suggest that assuming that aerial survey always comes before terrestrial fieldwork in Crawford's practice is in itself a form of false trail. It is certainly the case that in Crawford's early writing on aerial photography this directionality between the aerial and terrestrial is assumed by Crawford himself. In the first issue of *Antiquity,* Crawford set out his vision for the uses of aerial photographs;

> The uses of air-photography are only beginning to be properly appreciated, and there are many. Air-photographs reveal lost or unsuspected remains, such as Woodhenge and the Stonehenge Avenue; *they show the excavator where to dig* for walls, ditches or pit dwellings; they reduce a tangle of earthworks to order and may prove their relative ages (1927:3; cf. Crawford 1924:10).[482]

As Barber has demonstrated Crawford's early work also followed this pattern (Crawford 1928; MS Crawford 101; cf. Barber 2015:39). But in his later publications Crawford seems to have advocated a different balance to the relationship between the aerial and terrestrial; here I use the example of Crawford's description of tracing a Roman road in *Archaeology in the Field* (1953). One should begin by examining both recent and historic maps of the area and asking questions of what was shown there: "Does that continuous line of field boundaries mark the course of a Roman Road?" (Crawford 1953:52; cf. Crawford 1921:170,197). In his Scottish fieldwork Crawford also seems to have drawn upon the pre-existing terrestrial surveys compiled by General William Roy in the eighteenth century (Crawford 1949; cf. Jones 2005).[483] The consultation with books and maps would then lead into the development of a route plan, and so the field archaeologist would conduct an initial exploration of their chosen ground "by book and by foot" (Crawford 1953:52).[484] From his training with Williams-Freeman Crawford knew that tracing a Roman road was not a matter of taking a single trip to assess the ground once, but a far more time-consuming process that required covering the same ground repeatedly from different perspectives and across a variety of seasons and weather conditions, each time perhaps adding only a single new observation (1921:187). [485] This laborious process was especially pressing given that later road makers often adopted and adapted the paths of Roman roads, and so inspection of a single section of road or reliance on a single perspective or source might easily lead to the false impression that the structure was far more modern than it actually was; "it is not until one has walked its whole length that its composite nature is discovered" (Crawford 1949:7; cf. Crawford 1953:57). Even if nothing archaeological was found at all, or like in

[482] Emphasis mine.
[483] See Hewitt (2010) for further discussion of Roy's survey.
[484] It's notable that this method seems to echo Crawford's approach to field survey in Sudan.
[485] On the topic of Roman roads Crawford wrote "Few subjects would appear to be so easy to understand, yet few are less understood" (1949:3).

the case of Print 3.111 (Figure 4.48) if the weatherworld frustrated the ability to take suitable photographs, the day would not be wasted, “at least one has got to know a bit of one’s chosen district intimately in the only way in which that can be done, namely by walking over it" (Crawford 1953:52). In fact, Crawford admitted conducting research in this manner was so labour intensive that it was perhaps only truly suitable for someone who lived in the locality (1953:53). The kinds of evidence which Crawford gathered while walking—as discussed in Section 4.6—was a very different kind to that offered by the aerial view; from the sky there was no way to listen for the hollow boom that signalled a silted-up ditch, or to count the proportion of stones that might signify a ploughed over causeway.

Much like Crawford’s experiences in the First World War, though the aerial view might unfold the larger features of the landscape like a map giving an oversight of the bigger picture, it was only when this process was combined with repeated terrestrial investigation, that one could truly understand a landscape. And only after the puzzle had begun to assemble itself on the ground, should one attempt to trace a Roman road from above; “Having got to know your ground thoroughly by field-work, you may then, if you can, go up and look at it from the air, preferably more than once” (Crawford 1953:63). In 1939 Crawford flew over a landscape he had already conducted extensive fieldwork in. He had photographed the Roman fort at Ward Law the previous year (Figure 4.42) following the entire outline of the fort as a cropmark on the ground, but even knowing where to look from the air Crawford “could hardly see it” (1939c:284). The ‘Old Road’ near Lochmaben had also been explored by foot, and Crawford had cautiously dated it as Roman, but from the air it appeared as a clear and “startling…white band” (Crawford 1939c:284). The resulting aerial photograph Crawford wrote “proves, therefore, not so much the value of air observation (though it does this) as the reliability of careful ground observation” (1939c:284). Rather than the view from the ground being used to verify the view from the air, here the inverse is the case.

Having taken the requisite aerial photographs, one might then return to walk the ground again, this time carrying the prints for reference to assist in identifying even the faintest of undulations in the ground (Crawford 1953:48). This relationship between ground-work and aerial work is far more complex and enacted over much longer timescales than accounts of ground-truthing which assume that what is seen once from the air can be verified by a single ground-based assessment. Field-work of this kind required a durational perspective; a series of returns and reassessments across a variety of weather conditions and seasons, and from both aerial and terrestrial perspectives. Rather like Crawford’s photographs of the carvings at Stonehenge, understanding emerges not out of a single fixed perspective or totalising gaze but out of the combination of multiple situated and previously

fragmented perspectives.[486] On the topic of fragmented perspectives, it is also worth noting that when flying Crawford was not only focused on Roman sites, in 1939 he noted a prevalence of "native forts" that caught his attention, alongside a series of lynchets (Crawford 1939c:289; cf. Jones 2005). This division of attention is reminiscent of the lessons Crawford learned during his Andover fieldwork and through his experiences with the Hampshire Field Club; where tracing a Roman road might lead to a conversation with a local farmer about folklore, while a scheduled 'fungus forray' might lead to the discovery of an archaeological feature.

It seems then, that there is a disjuncture between Crawford's framing of the relationship between aerial photographs and ground-based fieldwork in the 1920s and this later account of terrestrial work preceding the aerial. Moreover, Crawford's later emphasis on fieldwork preceding the initial aerial survey seems to offer an extra dimension to his decision to forego photography in the 1930 flight. This impression is reinforced by Crawford's own comment in 1930:

> To profit most by the overhead view it is necessary to know the local topography as only the groundsman can learn it-on foot. Such knowledge we had not got… we fear that we missed much through ignorance (Crawford 1930:275).

Far from the aerial view directing the terrestrial path of the field archaeologist, here it seems the perspective of the field archaeologist informs the aerial observer where to look. Crawford followed this comment with reference to almost immediately undertaking remedial ground-based fieldwork. I would suggest that the reason for this dramatic shift in method is at least partially explained by Crawford's longstanding familiarity with 'Wessex' from the ground. The aerial sites he published on in the 1920s were the regions he'd already extensively roamed on foot; with one-inch map of Marlborough as a schoolchild, and then with Peakes and Williams-Freeman as an undergraduate. Likewise, Barber's account of Crawford's aerial methodology is based on those same 1920s sources. It is only after Crawford's projects moved away from the familiar 'Wessex' landscape that his methodologies began to recognise the centrality of the terrestrial perspective.

The process of gradually assembling intimate knowledge of place is reflected in the physical presentation and structuring of Crawford's photographic archive. The photographs from Crawford's ground-based survey of Roman Scotland are spread across the photographic archive. Three boxes of archival material are explicitly given labels relating to Scotland; Box 8 "Scotland N. of the Firth", Box 13 "Scotland: The Wall" and Box 48 "East Anglia, Roman Scotland" and comprise the bulk of Crawford's fieldwork photography from the 1930s and into the early 1940s. We have met many of

[486] In 1939 Crawford also reported on passing cloud formations (1939c:281).

these photographs already in this chapter in the form of Figure 4.28,Figure 4.29Figure 4.30Figure 4.31, Figure 4.42 and Figure 4.43. Several of these prints are annotated, not just with Crawford's usual notes but with drawings too, such as the one on Print 48.82 (Figure 4.61), in which Crawford attempts to describe through the sketch the location of the Roman road depicted by the print. Equally notable is the role which orientation plays in both the production and labelling of these photographs. Photographs are often paired together, as with prints 13.100 and 13.101 (Figure 4.62 & Figure 4.63), sighting the course of the road in multiple directions from the same vantage point. The perspective is not that of a detached and total overview, but of a situated presence—the partial view of the archaeologist on foot within the landscape. There is a tentative quality to many of these drawings and annotations, Crawford annotates Print 48.82 "the R.road [sic] emerges between two woods at the foot of the hill (I think)". Likewise on Print 13.93 Crawford wrote "At first I thought this bank of pebbles might be the causeway of the R.road [sic], but now I don't". And on Print 13.127 the annotation announces "Looking N.W. along a possible (but entirely hypothetical) course for the Roman road". Unlike the example of Print 9.30 (Figure 1.13) in Chapter One where the interpretation of the cup marks was discussed at length by Crawford and his colleagues, before Crawford formally transferred the collective decision into his archive by transcribing the print mount, here the prints are working documents. Something more akin to the maps upon which Crawford noted down observations from the air and while in the field.[487] The uncertainty stems from the fact that these photographs were not intended to function individually as definitive or total records, but rather more like pieces of a puzzle, that could be collected and assembled over much longer timescales.[488] This slow, durational accumulation of material explains much of the material presentation of the archive discussed in Chapter One. Crawford's choice to originally order the archive as loose sheets held together in albums, would allow for the insertion of additional material after each session of fieldwork adding pieces to the puzzle. Here the material form of the photographic archive emerges out of Crawford's ongoing fieldwork practice, an archive designed not to be a static repository but a dynamic and mobile assemblage responding to the introduction of new insights gained from each period of fieldwork.[489]

[487] Crawford suggested that when annotating maps in the field a gradiation of lines should be used with a "solid double line" indicating the certain path of a Roman road, an "open double line" for the likely course, and a "broken" double line for a possible course (1921:189).
[488] Crawford noted that each of the kinds of evidence he described "have never been used singly as evidence without some other support" (1921:191).
[489] Cf. Baird and McFadyen (2014) on archive as practice.

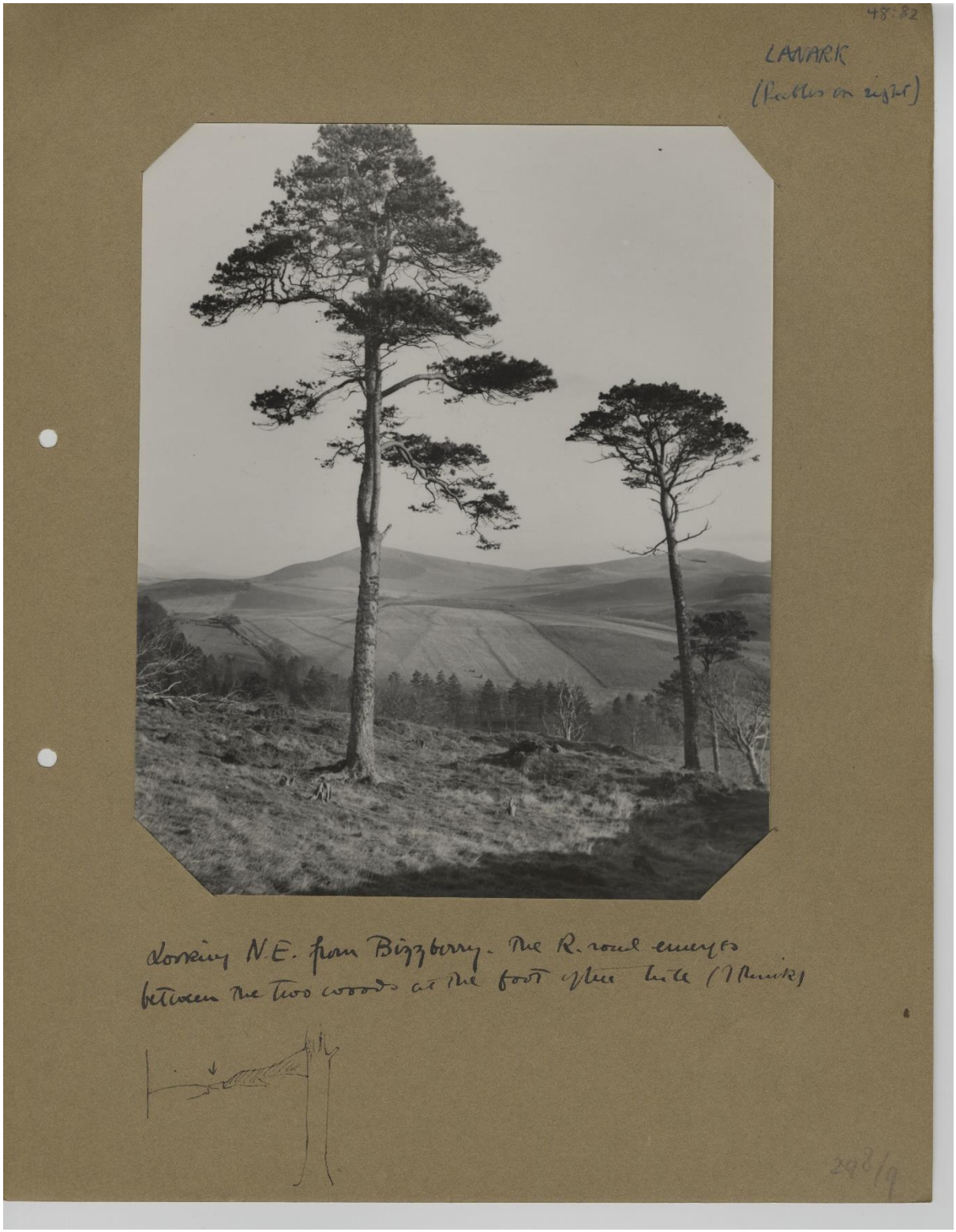


Figure 4.61 Interpretive sketch. Print 48.82.

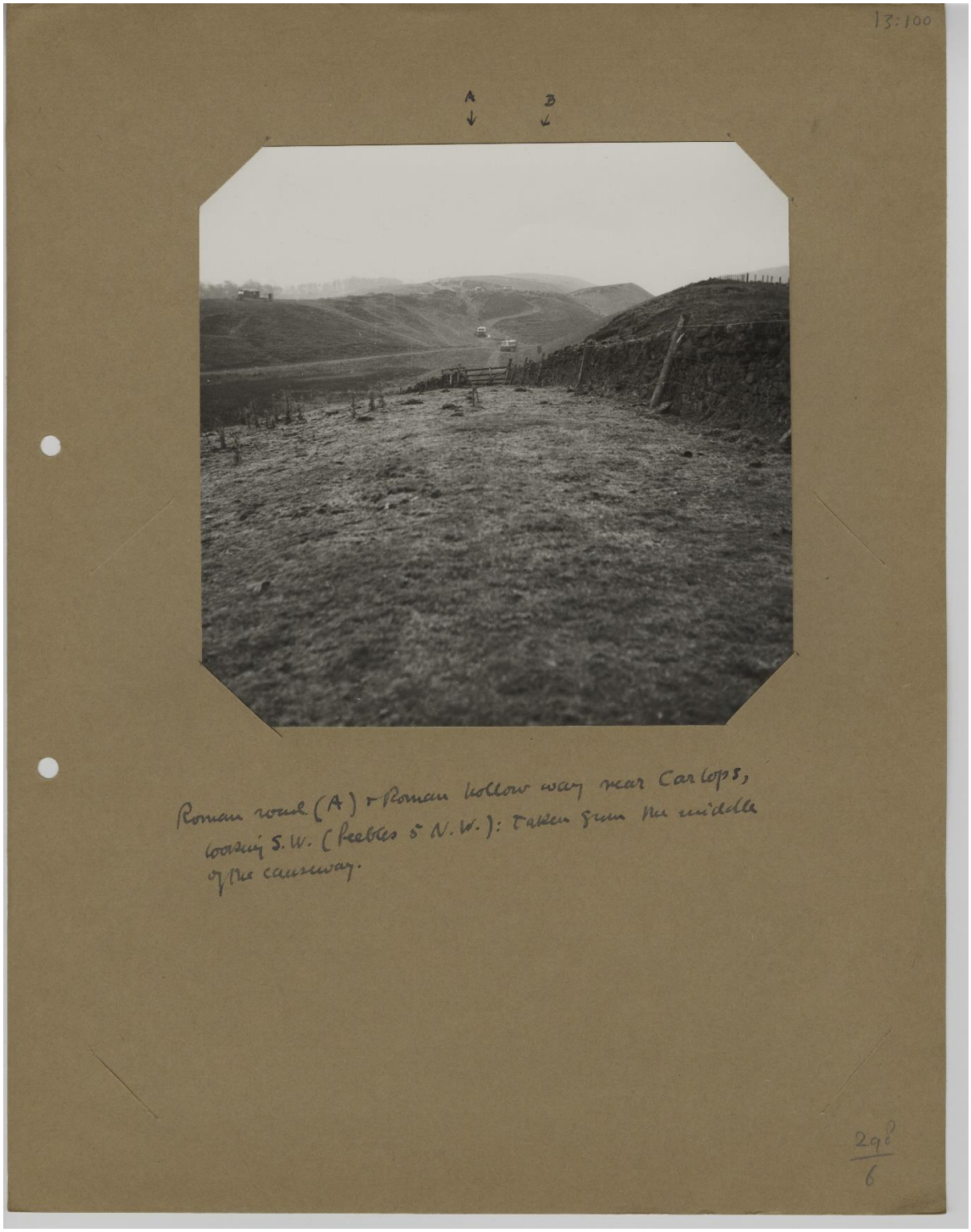


Figure 4.62 Roman road looking south-west. Print 13.100.

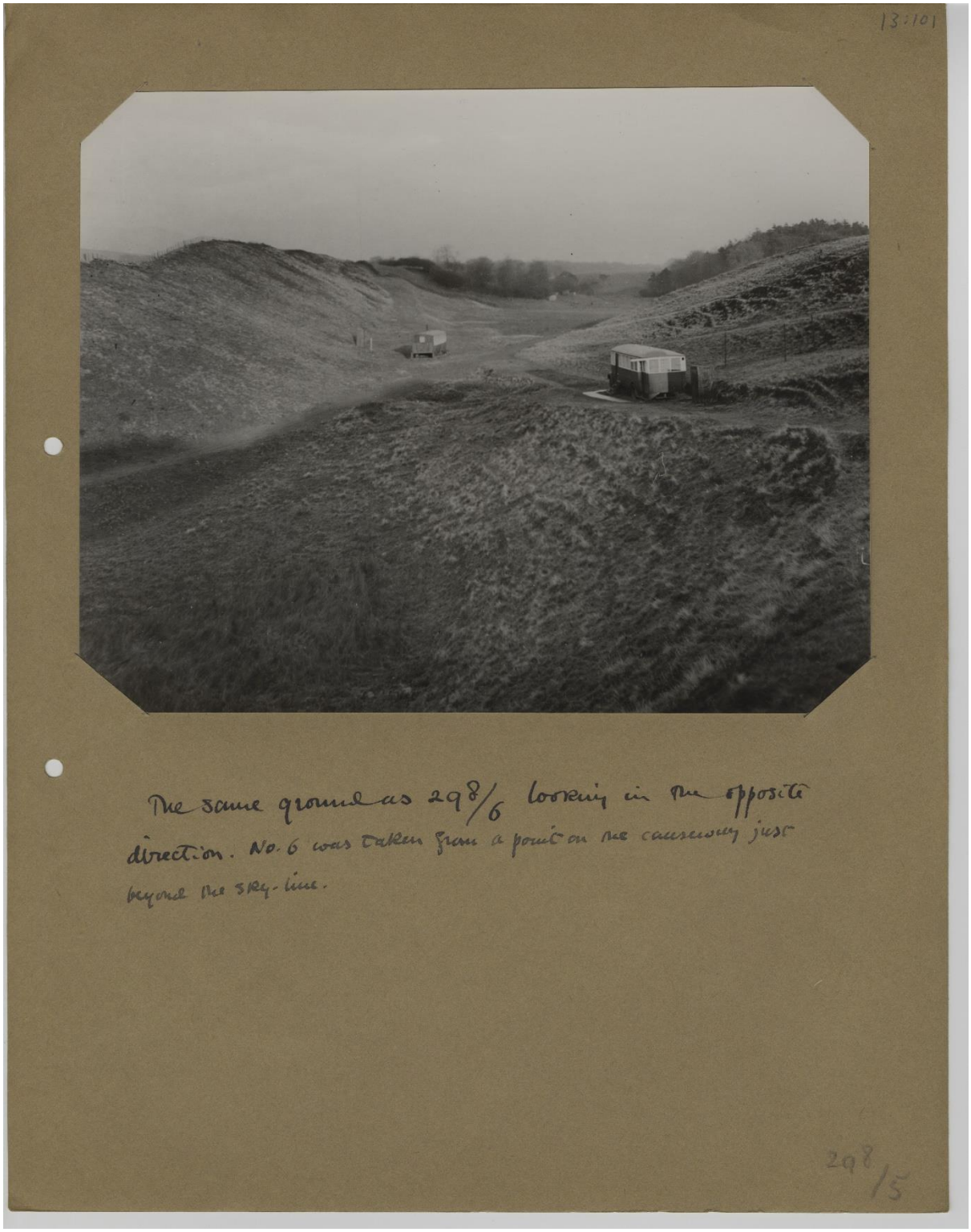


Figure 4.63 Roman road in opposite direction. Print 13.101.

Though Crawford structured his archive to reflect the intertwined work of both the aerial and terrestrial view, in the present drawing connections between these perspectives can prove more challenging. Crawford's reputation for aerial archaeology has led generations of scholars to his photographic archive hunting for examples of the aerial view, as is the case in the sustained interest in Box 28 and its photographs of the First World War. The persistent way in which Crawford's aerial work, and the project of aerial archaeology more broadly, has been theorised as distanced and distinct from terrestrial archaeology acts as a barrier to scholars seeking connections between these perspectives. This is only exacerbated by the often-misleading labelling of the archival boxes, the disordered arrangement of material and the lack of a catalogue of the archive's contents, which acts to focus attention upon those aspects of the archive—like the photographs of Allen and Alington in Box 10—which explicitly reference aerial photography.

In the case of the prints contained in Boxes 8, 13 and 48 both the geographic continuity of the contents and the clear labelling of the boxes makes the link between Crawford's aerial and terrestrial work in Scotland, if not explicit, at least relatively easy to intuit. This is most obvious in the case of Box 13, in which is scattered a few samples of Alington's aerial photographs from the 1939 reconnaissance flight, as demonstrated in the pairing of Prints 13.109 and 13.110 (Figure 4.57 & Figure 4.58). But photographs from Crawford's 1930s fieldwork in Scotland are not limited to these three geographically themed boxes. Twelve additional photographs taken in this period can be found in the unlabelled Box 25 which contains a mixture of material ranging from studies of stone tools, and a series of photographs of Hebridean Black Houses. A further nineteen prints showing lynchets appear in Box 5 which is labelled "Cultivation Systems, Primitive Carts".[490] Six photographs appear in the esoteric Box 1 which has two labels: "Eire, Turkey, Romania, 1932" and "Gravestones, Types of Building Material also Primitive Buildings". Five prints can be found in Box 49, which is labelled "Animals, Sky, Birds, Rocks, Trees I" and finally three prints can be found in Box 23, otherwise known as "Birds, Animals, Trees, Rocks & Flowers".[491]

[490] It must be noted that the term 'Primitive' is a slur and I quote this only to demonstrate the language that has historically been used to categorise Crawford's photographs.

[491] It is unclear how much of this dispersal of the prints was done by Crawford and how much is the result of later interventions in the archive's structure. The division of material according to a specific research project is seen elsewhere in the archive as in the case of Crawford's photographs of Sutton Hoo and Sudan. As discussed in Chapter One at least some division of material according to geographical regions was undertaken by Crawford himself. However, the exact division of this Scottish material likely does not represent Crawford's original categorisation, as is indicated by the fact that Print 1.38 is annotated "A better print in 'Scotland 2'". As no box in the archive currently bears this designation, it is likely that at a minimum the titles of the archival boxes have been amended from Crawford's own division of material between albums. It is notable that Crawford's Sudanese material is divided into boxes marked "Sudan I" and "Sudan II" and so the division of material from specific geographic regions into numerically assigned folders seems a likely structuring device of Crawford's own devising.

Acting as both photographer and archivist, Crawford was obviously aware of the connections between these dispersed collections of photographs and the broader trench of fieldwork from which they stemmed. Print 5.52 (Figure 4.64) depicts cultivation terraces visible on a hillside in Lanarkshire, photographed from Crawford's vantage point on the valley floor in 1938. On the mount of the print are two sets of annotations both in Crawford's hand. The heavy black ink of a fountain pen describes the location in which the photograph was taken, while added underneath in blue ballpoint— presumably the following year— is the instruction "For a much better (oblique air) view see ANTIQUITY [sic] xiii, 1939, Plate VII A (pp.280-1)." Annotations like this are not only reminiscent of other pairings of aerial and terrestrial views which appear throughout the archive, but reveal Crawford's intention for photographs throughout the whole of his collection to reference one another, binding together the aerial and terrestrial perspectives. But for a researcher in the present, identifying the relationship between Crawford's flight with Alington in 1939 and prints like 5.52 requires not only trawling through boxes of material which at first bear no obvious connection to the aerial project, but then the equally laborious task of comparing negative numbers noted on prints to those recorded in Crawford's negative register to ascertain exactly when and where the photographs were taken. Both the dispersal of the prints and the uncatalogued nature of the archive resist efforts to combine the aerial and terrestrial perspectives. And it is in this manner that the perception of Crawford's aerial work as separate from his terrestrial photographs becomes self-perpetuating.

This division of material has also contributed to misguided framings of Crawford's photographic practice as detached and distanced, and therefore worthy of the metaphor of the gods-eye view. At first glance the prints contained within Boxes 49 ("Animals, Sky, Birds, Rocks, Trees I") and Box 23 ("Birds, Animals, Trees, Rocks & Flowers") bear little relation at all to either the projects of aerial or terrestrial archaeology. In Print 23.29 (Figure 4.65) the trunk of a beech tree sweeps diagonally across the frame. The depth of field gives a softness to the image, that is matched by the papery folded gills of the mushroom. In Print 23.31 (Figure 4.66) lights catching on blades of windswept grass mimic the slashes of light and dark in the gills of a second fungi. The siphoning of these prints into a separate archival box, along with their notable aesthetic quality seems to imply that the photographs are incidental to Crawford's fieldwork practices, likewise at the labelling of the archival boxes also holds a hint of whimsy. The prints from these two archival boxes have never been the subject of any scholarly attention except for brief mentions in passing.[492] Yet prints from within these two boxes have been studded throughout this chapter, photographs like C.J.P Cave's

[492] See for example Hauser "Some [photographs] seem to serve no purpose other than the purely aesthetic" (2007:16).

photograph of a lightning strike (Figure 4.23), clouds sweeping over Mount Vesuvius (Figure 4.20), newspaper cuttings of nebulas (Figure 4.18) or daises springing from disrupted soil (Figure 4.33).

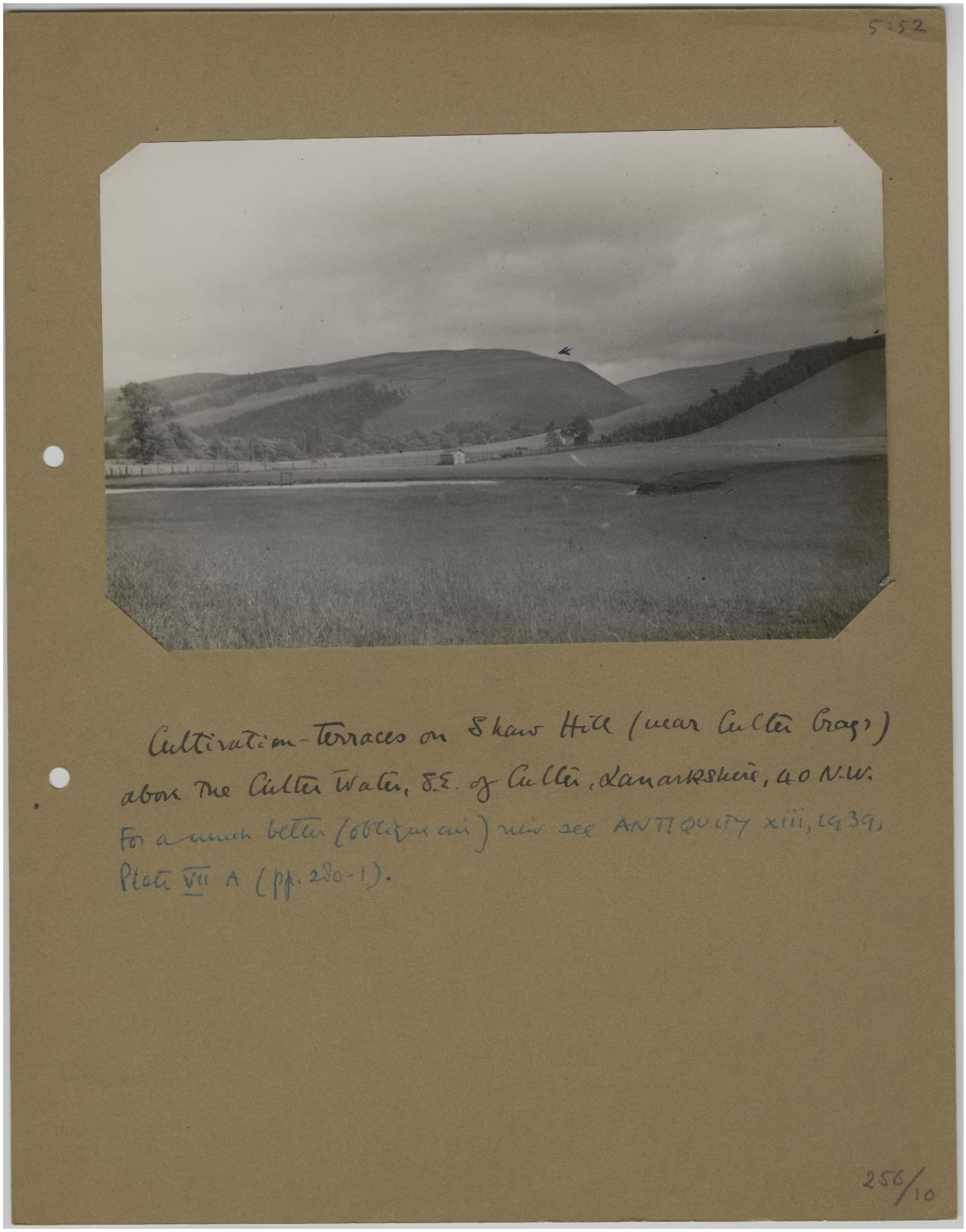


Figure 4.64 Cross-references. Print 5.52.

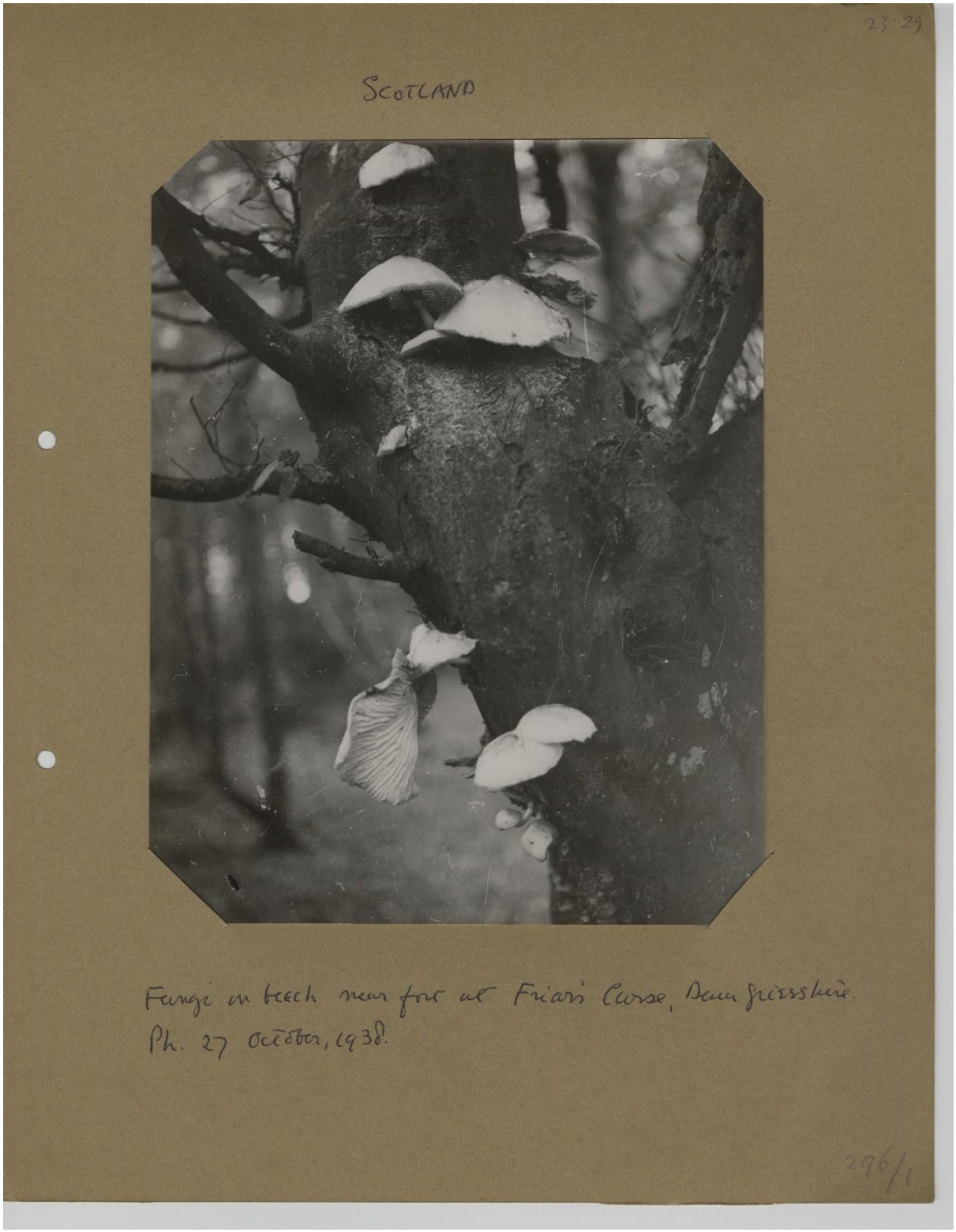


Figure 4.65 Fungi on beech tree. Print 23.29.

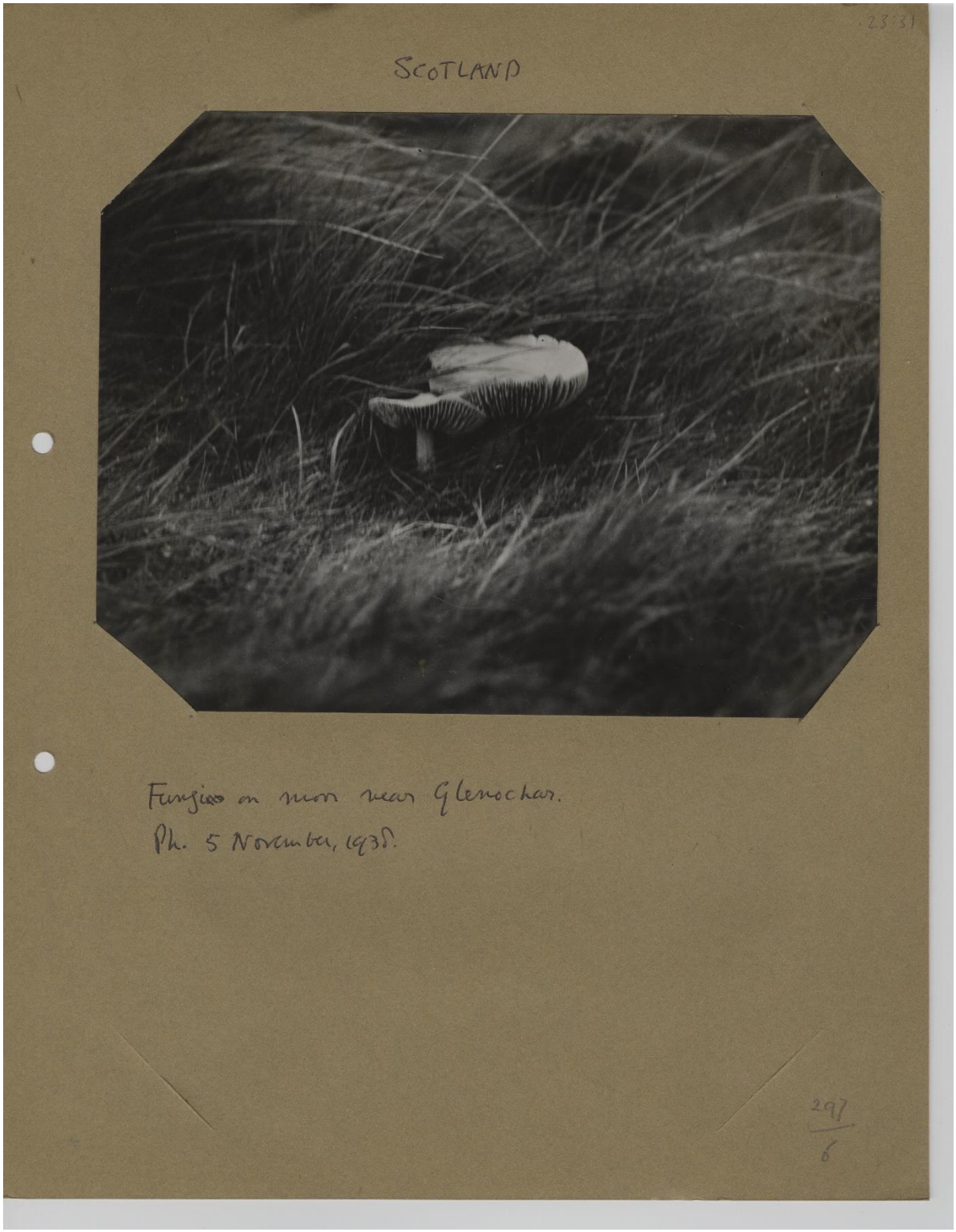


Figure 4.66 Fungi. Print 23.31.

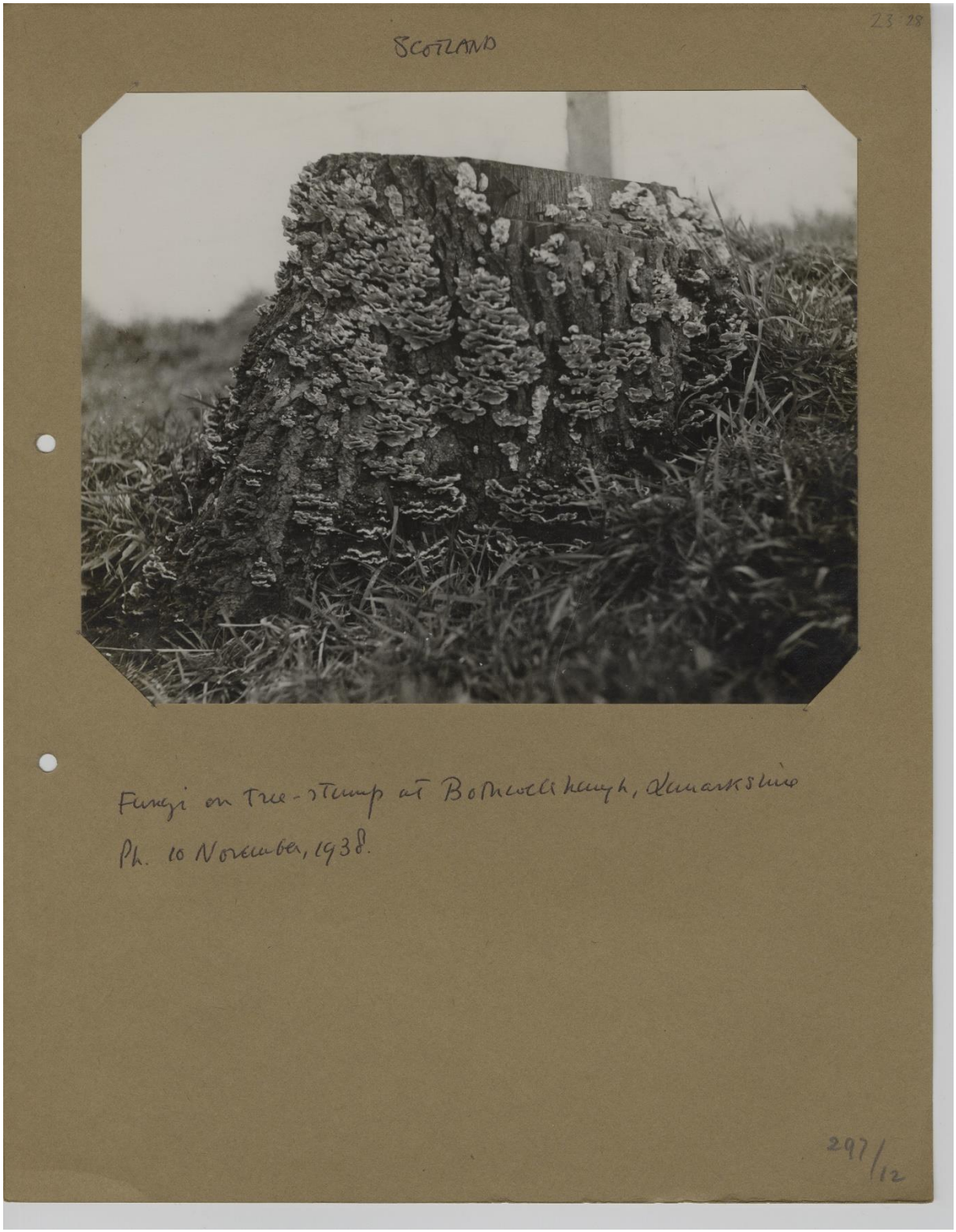


Figure 4.67 Fungi on a tree stump. Print 23.28.



Figure 4.68 Fungi study. Print 23.30.

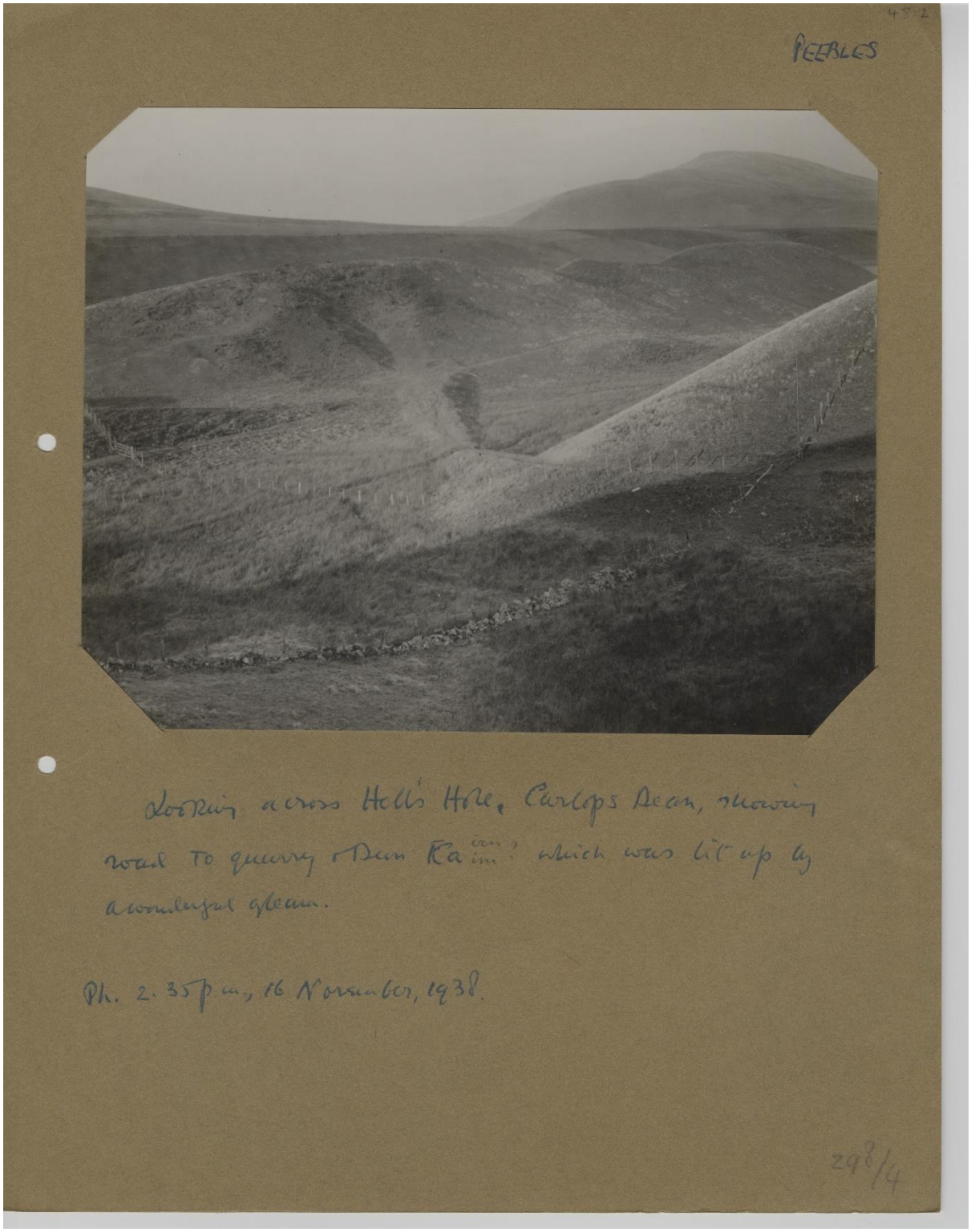


Figure 4.69 'A wonderful gleam'. Print 48.2

It is in turning to prints like these that the boundaries between the aerial and the terrestrial have begun to crumble. Moreover, photographs like these are far more tightly bound into Crawford's fieldwork practices than many previous scholars on Crawford would care to admit. Though archaeologists in the present are generally more open to the idea that "all archaeological field survey is inherently subjective, has elements of bias and depends almost entirely on perception of one kind or another" (Brophy 2005:35), there remains a strong sense that what separates field archaeology from a looser form of rambling around historic sites is the systematic and focused nature of the practice. Hauser has framed Crawford's regime of attentiveness as the "archaeological imagination"—a focused attention to traces of the past in the landscape of the present (Hauser 2007:26). Bowden has also written on the details that caught Crawford's attention in the field, contrasting the purposeful walking that constituted archaeological fieldwork to the pursuit of rambling as a pastime requiring no clearly defined goal (2001:35).[493] Publicly at least, Crawford shared similar ideas of the right and wrong ways to go about field archaeology; in a scathing review of H.J. Massingham's *Through the Wilderness* (1935) Crawford wrote "it all boils down into the rather commonplace fact that the author has retired to a house in the country and has now written a book about it" (Crawford 1936b:118). In each of these framings of Crawford's fieldwork is the suggestion of a discerning sense of focus; a refusal to be distracted by details that were archaeologically irrelevant.

However, when drawing in the evidence from Crawford's photographic archive and from his negative register, a different image of Crawford's photographic attention during fieldwork emerges. Despite the physical separation of Prints 23.29 (Figure 4.65) and 23.31 (Figure 4.66) from the bulk of the prints in boxes 8, 13, and 48 both photographs were also taken during a burst of Crawford's Scottish fieldwork between 27th October and 29th November 1938. Print 23.29 (Neg. no. 296/1) was the first of seven photographs taken on 27th October 1938 as Crawford scouted a potential Roman fort near Friar's Carse. Barely a week had passed before he took Print 23.31 (Neg. no. 297/6) on 5th November as he traced the causeway of a Roman Road through Glenochar. Two further photographs of fungi follow on 10th November 1938 (Neg. no. 297/12) and 28th November (Neg. no. 301/5) (Figure 4.67Figure 4.68). For such a short, concentrated burst of fieldwork Crawford's attention seems to have wandered quite considerably. This is most evident in Crawford's records of the shots taken on roll 301.[494] Of the 12 exposures on the roll of film, eight are shots of herds of cattle, beech trees, and the light as it filters through trees. On roll 311—another tranche of

[493] Bowden cites a series of Crawford's published work as evidence of this, (Bowden 2001:35; cf. Crawford 1921:180–2; 1953: 53–5, 62–3) however I suspect that Bowden has fallen prey to the danger of taking Crawford's published opinion at face value.
[494] Used between 25th and 29th November 1938.

Crawford's Scottish fieldwork from May 1939—are five photographs of oak trees, one plane tree, and three photographs of cattle.

Despite the impression given by the separation of this material in the arrangement of Crawford's photographic archive in the present, photographs like these were clearly far more common and evocative of Crawford's photographic practice than previous studies have cared to admit. The scattering of prints from Crawford's Scottish fieldwork across the archive has led to a false impression of Crawford's photographic practice as far more concentrated and focused as a practice—an impression that easily gives rise to the suggestion that archaeological photography is conducted with a distanced and detached gaze. This perception is far harder to maintain when these scattered photographs that speak to not only an eye for small details but for the physical closeness of photographer and subject are drawn back into the discussion. Moreover, such photographs point to deep-rooted connections between Crawford's early experiences of field archaeology with Williams-Freeman and the Hampshire Field Club and his later practice as an established archaeologist. Crawford was trained to constantly monitor his surroundings from multiple scales and perspectives; musing on how the features he walked over might align with photographs taken from the sky or the contours of a historic map or Saxon bound, participating in a 'Fungus Forray' while also assessing the whether the colours or height of the crops might speak to buried structures waiting just beneath the surface, and all the while keeping one eye on changing light that might suddenly throw hidden features into sharp relief or simply delight the eye as was the case on 16th of November when Crawford paused his tracing of a Roman road to photograph the view purely due to a sudden burst of "marvellous light" (Figure 4.69). Prints like these speak to the rhythm and flow of Crawford's photographic activity in the field, to his habits of collecting and to his interest in subjects outside of archaeology like meteorology and gardening. Walking with a camera allowed for pauses and diversions, opportunities to look closely and in detail at features that caught his interest, even to the point of squatting or lying on the ground to look upwards at the gills of mushroom in the grass. Of all the prints to be found in Crawford's photographic archive, it is in photographs like these that Crawford's personality seems closest to the surface; this was the man after all who cited odes by Wordsworth in *Wessex from the Air*, who found moments of beauty in the sky even during the worst moments of the First World War, who became so distracted by an evening sunset he forgot to make any notes about the hillfort he was sitting in, and who became transfixed by flowers in a Cornish hedge.[496] Delicate studies of mushrooms are just as integral to Crawford's photographic practice as

[496]There are indications that he appreciated this tendency in others, for example in his praise of college tutor A.S. Owen's "real feeling for poetry…and for natural beauty" (1955:34). And it is possible that others recognised this side to Crawford, in a letter sent to Crawford to congratulate him on the publication of *Said*

aerial views. The intimate knowledge of landscape which Crawford sought as a field archaeologist is nowhere better expressed than in the exquisite tenderness revealed in the quiet study of such small details.

and Done, a correspondent gently chided him, “here and there the real Ogs [sic] peeps out before he is quickly pushed back again. When you let your hair down…I like the style immediately” (MS Crawford 107.141).

5 Crawford from the Ground? Pathways and Perspectives

I began this thesis with a photograph of Crawford's feet (Figure 1.1). Unlike the technically polished photography of archaeological discoveries widely circulated in academic publications, and the aesthetically stunning visions of ancient sites and monuments favoured for discussion by historians, the photograph of Crawford's feet seemed evocative of a far less sensationalised kind of archaeological practice. Nor did this photograph stand as an outlier in Crawford's photographic archive held by the Institute of Archaeology in Oxford. Rather a plethora of photographs—ranging from snapshots of colleagues joking and relaxing, contemporary street scenes, artistic studies of the patterns made by the wind in the sand and delicate observations of cloud formations and mushrooms—seemed to confound established expectations for the contents of an archaeological archive. Even more strikingly these photographs which formed the bulk of the archival collection stood distinctly at odds with Crawford's dominant reputation for aerial archaeology. In the introduction, I set out a series of research questions which arose directly from my encounter with the contents of Crawford's photographic archive: What did Crawford hope to achieve in assembling this photographic collection? How did it come to be here, in this form? And how might my own reading of these photographs brush against the ways in which Crawford, his archives and archaeological photography had been understood by previous generations of researchers? Uniting these questions was an interest in the processes by which the photographs in the archive came-into-being; how and why they were taken, and how they were subsequently understood, used, prepared and deposited in archival collections, re-used, reinterpreted and disseminated throughout their lives.

In this final chapter I reflect on the pathways through the photographic archive which I took in the course of answering these questions. I argue that previous scholarship has grievously mischaracterised the nature and work of Crawford's photographic collection by placing far too great an emphasis upon the role of the aerial view in Crawford's photographic work, at the expense of recognising the role which intimacy plays in the collection. In highlighting the variety of ways in which intimacy manifests in the photographic archive I make the case that photographs like that of Crawford's feet are far more evocative of the perspective that guided Crawford's photographic practice. Similarly, I return to the prominent characterisation of archaeological archives as stores of 'facts' and the associated suggestion that archaeologists strive to use photography to document these 'facts' in a dispassionately objective manner. I question the extent to which this perspective accurately represents the contents of the photographic archive, and make the case that by studying the formation of Crawford's photographic archive it is possible to recognise the far more subtle and nuanced work of this photographic collection, and the variety of affective and personal resonances

which the collection held for Crawford. In particular I note the variety of social uses to which not only Crawford, but his friends and colleagues, put photography and emphasise the extent to which Crawford utilised the 'future trajectory' of his archive to actively fashion his own legacy. In doing so my research ushers in a new perspective on the ways in which archaeology has historically used photography outside of the paradigms of scientific documentation.

My reconceptualization of Crawford's archive has further far-reaching implications; first and foremost, I suggest that we might use this collection to reframe Crawford's existing legacy as an 'pioneering' aerial archaeologist, arguing that the evidence within his photographic archive opens up pathways to explore a far greater range of Crawford's photographic and archaeological work and to readdress the existing overemphasis on his aerial pursuits. Reframing Crawford's legacy in this manner simultaneously invites wider critical reflection on the ways in which archaeology has traditionally written its own history, and the extent to which the myths which surround the so-called 'Founding Father' figures have similarly acted to obscure other hidden histories in archaeology. In the introduction I noted the paucity of literature written by archaeologists which explores the dynamics of archival collections, and yet throughout this thesis I have used archaeological theories of temporality and assemblage in order to interrogate Crawford's archival collections, and in doing so have made space for these alternative stories from the history of the discipline to emerge. Indeed, the methodological applications of these theories to photographic and archival collections expand beyond the bounds of archaeology and would be of use to any scholar of photography or archival collections.

And so, in drawing together the threads which connect my initial research questions, let me turn one final time to the issue of Crawford's aerial legacy, and the ways in which the metaphor of the aerial view has been used as a metaphorical cipher to describe the practices of archaeological photography. The history of archaeology as written by archaeologists in the twentieth century was a history of dashing and eccentric 'Founding Fathers' digging and 'discovering' spectacular and ground-breaking sites and pioneering new scientific methods. Crawford's legacy as the singular pioneer of aerial archaeology in Britain is just one manifestation of this wider narrative that persists into the present day. In the introduction I noted the reverence which Crawford's aerial photography in the volume *Wessex from the Air* (Crawford and Keiller 1928) still provokes in the present—even to the extent that artefacts used by Crawford during the project have gained the status of 'relics' in the archaeological community (MacGregor 2000). Coupled to this reverence for Crawford's aerial activity, is Crawford's own reticence to record much of substance in his autobiography (Stoddart and Malone 2002; Hauser 2008; Barber 2015), and the initially overwhelming material presentation of his photographic archive in a state of "disarray" (Hauser 2008:x-xiv). These factors have combined to

generate a pervading sense of Crawford as something more akin to a mythological figure than a flawed human. But so too, have they dissuaded scholars in the decades since Crawford's death from scrutinising Crawford's aerial reputation against the contents of his archival collection at any great length.

The lure of the mythology surrounding Crawford's aerial pursuits in his younger years is evident in the ways in which his archival collection has been used and understood by previous generations of scholars, most notably in the pervasive assumption that the photographic archive held by the Institute of Archaeology in Oxford represented a cache of aerial photographs, and the ways in which scholars and researchers have mined the collection for traces of Crawford's aerial activity. Just as the continual footfall of past people and animals carved paths into the chalk downs which Crawford walked in his youth, so too do the movements of researchers through archives leave behind them similar trails or desire paths. In Chapter Four I argued that the origin myth of Crawford's exposure to the aerial perspective in the First World War has exerted a magnetic pull upon previous generations of researchers, drawing them inexorably to the material in Box 28, and this steady flow of interest left physical traces on the prints in Box 28 in return (Figure 4.6). So too is this the case for one of the most popular visions of Crawford Print 35.32 (**Error! Reference source not found.**), a photograph in which Crawford is prominently bedecked in his RFC helmet and fur mittens.[497] Like Print 28.1 the photograph of Crawford bears similar wear to its corners—markers of the repeated action of threading and unthreading the print from its mount. And like the magnetic pull exerted by the tale of Crawford's time in the RFC, this print too has drawn sustained attention; the image decorates Crawford's Wikipedia page, is the first google image search result for "O.G.S. Crawford" and has been widely reproduced in academic and popular publications. There are a series of letters held by the Griffith Institute between the archivist Fiona Strachan and various publishers and academics attempting to secure permission to reproduce this photograph in publications dating back to the 1980s.[498] One letter in particular catches my attention, as it notes that the request to reproduce the print is the result of the editor having seen the photograph previously published in Glyn Daniels' 1962 monograph *The Idea of Prehistory* (Letter from Liz Eddison. 22 November 1985. O.G.S. Crawford Correspondence File. Griffith Institute, Oxford). Even in the present this is one of the most commonly requested photographs from the archive.

[497] The lure of this particular image is in the prominent presence of these RFC accoutrements, given the relative absence of photographs of Crawford in or near aeroplanes in the photographic archive in Oxford.
[498] The presence of the letters in the Griffith is due to the confusion following the Ashmolean Museum's deaccessioning of Crawford's photographic archive.



Figure 5.1 The popular vision of Crawford. Print 35.32.

As I demonstrated in Chapter Three it is through these cyclical returns to archival material that genealogies of images spread beyond a single archive, and how images of archaeology and perceptions of archaeologists become entrenched in public consciousness. With each retelling of the story of Crawford's exposure to the aerial view in the First World War, and with each reproduction of the photograph of Crawford in an RFC pilots helmet the dominance of Crawford's aerial legacy is compounded. These pathways through Crawford's archives are not incidental but directly relate to the efforts of those who have researched, written about, and physically managed and shaped the collection. As I argued in the introduction, the cataloguing and ordering of collections can—in very different ways—constrain and shape pathways through archival material; as with the example of the catalogue of Crawford's written papers which Clapinson devised to accentuate Crawford's aerial accomplishments in the First World War. So too does the online framing of the photographic archive by the Institute of Archaeology as the collection of the "Father of Aerial Archaeology in England" (Institute of Archaeology 2011) act in much the same way. Throughout this thesis I have noted numerous occasions where researchers and academics have been led down research paths by this archival framing and their pre-existing assumptions about the nature of Crawford's photographic and archaeological practice, such as Drzewiecki, Maliński, and Rączkowski's (2008a) homage to Crawford via the incorporation of satellite image analysis in their 'Fortresses of Sudan' project, and Jones (2005) and Aldred's (2019) confusion over the role Crawford played during his 1939 flight over Scotland with Alington. As these examples demonstrate, the myth of Crawford's aerial legacy is a self-fulfilling prophecy; the more researchers unquestioningly accept established narratives about the primacy of Crawford's aerial work, the harder it becomes to seek out alternative pathways through his archival material.

And so, when Hauser encountered the photographic archive for the first time—overwhelmed by the sheer variety of its contents—her instinct was to step back—to view the collection from a distance using the lens of Crawford's posthumous aerial legacy to make sense of what she saw, ultimately using the aerial view as a metaphorical framing device to characterise the archival collection. Much has been made of Crawford's statement in the first issue of *Antiquity* in which he claimed "Each article will be but a tiny facet of the whole; for our field is the Earth, our range in time a million years or so, our subject the human race" (1927:1). This line has been taken by Hauser as an indication that ultimately, it was not the detail but the big picture—the clarity of vision provided by the aerial view which enabled the archaeologist to see the grand sweep of history—which really mattered to Crawford. Thus, the presence of the intimate, the detailed and the terrestrial perspective in Crawford's photographic archive is framed as a by-product; "The whole point…was that all the fragments added up to something" (Hauser 2008:105; cf. 2008:45-48, 81).

Attempting to invert the primacy of the aerial in conceptualisations of Crawford's photographic work is a challenging task; it requires overhauling deeply entrenched perceptions of Crawford himself, but also rethinking the ways in which archaeologists used photography and archives, working with archival collections in very different ways, and rejecting the manner in which archaeology as a discipline has written its own history in terms of a canon of 'Founding Fathers'. Pushing back against established narratives in the history of archaeology—as several prominent scholars have noted (Brusius 2017; Riggs 2019)—is often met with resistance from within the discipline, as has been the case in the reluctance of scholars to look too closely at Crawford's work in Sudan and the implications this holds for his legacy. But so too can the very materiality of archival collections resist these efforts. As I argued in Chapter Four the uncatalogued nature of the photographic archive and the less-than-obvious division of material between boxes, in combination with the pervasive mythology of Crawford's aerial legacy makes it especially challenging for academics and publishers to leave well-trodden paths to hunt for new photographs or narratives.[499] And yet in this thesis I have tried the opposite approach; I have tried to lean in to the intimate details of the archive and most especially to those aspects of the collection which sit most at odds with Crawford's reputation in the present, and I have looked again at the role of the aerial view in Crawford's archaeological work and questioned the extent to which this perspective truly exemplifies the details assembled within his photographic archive.

I have noted a series of incidents that speak to Crawford's unease with his aerial reputation; his venomous dislike for aerial photography during the First World War, his reticence to take photographs over Scotland in the 1930s and of course the relatively small proportion of aerial photographs in his archive. Just as Crawford's photographic archive confounds this aerial reputation, so too in his final years did Crawford come to frustrate his publishers in framing his own legacy. In a series of notes outlining the content of his autobiography Crawford drew up lists with titles like "Great Moments" and "Outstanding Episodes".[500] In these lists walking the North Hampshire Downs, Photography, Journalism, Cats, Gardening, the Bodleian, the USSR and Sutton Hoo are all listed as topics worthy of note while aerial archaeology is reduced to two moments; "seeing the first archaeological air photo" and "flight with Alington Cyprus, Scotland" (MS Crawford 107.165, 162). In a sternly worded missive from Nigel Nicholson of Weidenfeld and Nicholson, Crawford was admonished that his selection of photographs for his autobiography was equally unsuitable; "the illustrations should emphasise your archaeological work more than your present selection, and … we

[499] This is especially the case if the photograph is intended to act only as a passing illustration (cf. Shanks 1997; Edwards and Morton 2015).
[500] See MS Crawford 107.

should include, if possible, several air-photographs" (MS Crawford 107.96). In the end, Crawford published just a single aerial view in *Said and Done*—an RAF photograph rather than one of his lauded *Wessex from the Air* prints.[501] It is equally notable that despite the general acclaim which *Wessex from the Air* received—and still enjoys in the present— in his later years Crawford described the volume as "a big expensive book and rather specialised" and characterised the discoveries in it as "minor" and "very small beer" (1955:249,172).[502] These comments are all the more striking when compared with the passion with which Crawford wrote about his hopes for the future of his research in Sudan as discussed in Chapter Three. Crawford's aerial legacy as it exists in the present is something that has been thrust upon him, and is far from an accurate presentation of Crawford's own priorities, at least when it came to his own hopes for his legacy at the end of his life.

It is deeply revealing that Hauser herself admits that the written manifestos in which Crawford proclaimed his desire to use archaeology to illuminate the grand patterns of history peter out by 1931, after which point "Crawford never again spelt out the nature of his vision of the path of world history" (Hauser 2008:109). 1931 being the year in which Crawford took up a camera following his long hiatus in photography in the aftermath of the First World War (See Section 1.5.1). It is not unreasonable to suggest that a very different perspective guided Crawford's photographic practice in his later years. It is also a striking fact that throughout his life the term repeatedly and explicitly favoured by Crawford to describe his desired relationship to the land he studied was 'intimate'.[503] As I have demonstrated across this thesis intimacy in Crawford's photographic archive comes in many forms. Intimacy has manifested in Crawford's embodied physical proximity to his subject matter, as in the press of bodies at Sutton Hoo (Figure 2.57), in the example of Crawford crouching or even lying on the floor in order to photograph the delicate gills of the mushroom in Print 23.31 (Figure 4.66) or in his accounts of sensing pertinent changes to the terrain under his feet (Figure 4.29). But so too has intimacy manifested in Crawford's dedicated local knowledge of the streets of Southampton (Figure 4.37) and the surrounding landscape which he explored over decades in the company of the Hampshire Field Club. Intimacy here possesses a temporal quality; it is the familiarity that is generated by repeated acts of return to significant places as with Crawford's fieldwork in Scotland throughout the 1930s, and in his relationship with Sudan explored in Chapter Three. In each of these examples, I am reminded of the photograph of Crawford's feet, a print which seems to reflect these themes of physical proximity to one's subject matter, of sensing changes in terrain through embodied contact with the ground, the wear to the leather of Crawford's shoes

[501] See Plate 9 in *Said and Done.*
[502] In contrast it was his German-language publication *Luftbild und Vorgeschichte* (1938) which Crawford thought amounted to "the best general handbook of the popular kind" on aerial archaeology (1955:250).
[503] See for example Crawford 1921:19, 1929: xii, 1953:52, 1955:116 & 226.

caused by repeated use seeming to speak to Crawford's repeated acts of return to significant sites. Bringing these examples of proximity and intimacy to the fore is not intended as an outright dismissal of the significance of the aerial view, but rather as an invitation—one which I have extended throughout this thesis—to look beyond the veil of Crawford's aerial legacy and to recognise that this reputation obscures as much as it reveals (cf. Arendt 1993). Not unlike the photographic metaphor with which Crawford described the ground emerging out of the clouds while flying with the RFC, in the case of understanding Crawford's archive we need to make space for Crawford's terrestrial photographs to emerge from behind his aerial legacy. Not only are these photographs worthy of consideration in their own right but there is a much closer correspondence between Crawford's aerial and terrestrial work than previously recognised, though the threads that connect this work across the boxes of the photographic archive might not always be immediately obvious. As I demonstrated in Chapter Four recognising these connections will only strengthen and enliven future studies of all aspects of Crawford's archaeological and photographic practice.

Having outlined the manner in which a previous generation of researchers have interpreted Crawford's photographic practice through the lens of his aerial legacy and contrasted this with my own reading of the central themes of intimacy and the terrestrial perspective in the collection—in doing so decisively putting to bed the longstanding assumption that the photographic archive held by the Institute of Archaeology in Oxford constitutes a cache of aerial photographs—the question remains what did Crawford hope to achieve in assembling this photographic collection? Crawford's photographic archive has—if it is acknowledged at all—been characterised as a working collection; assembled for the purpose of providing Crawford with a systematic means of marshalling together the "tiny facets" of archaeological evidence which when viewed with sufficient distance could be used to reconstruct the overarching pattern of history (Crawford 1927:1; cf. Hauser 2007, 2008). This characterisation of the purpose of the archive arises out of a much broader discourse about the nature of the relationship between archaeology and photography.

In the introduction I noted a series of studies which have characterised archaeology's use of photography as premised around the hard documentary use of the camera to create repositories of 'facts' in accordance with the broader visual conventions of objectivity in scientific recording. These studies commented upon the temporal nature of photography, noting the vast gulf of time which separated archaeologists from the subjects which they studied and characterised the act of taking a photograph as freezing a split-second from the flow of time, and thus implying that to photograph the archaeological record is to stand at a distance from one's subject matter (e.g., Hauser 2007; Hamilakis, Anagnostopoulos and Ifantidis 2009; Hamilakis and Ifantidis 2015; Carabott, Hamilakis, and Papargyriou 2015). In particular I explored the work of Frederick Bohrer (2011) and Kitty Hauser

(2007, 2008), who spoke of photography as a socially isolating practice; framing the role of the archaeological photographer as that of a dispassionate technician whose situated and individual perspective left no tangible mark on the records which they produced. It was these themes of absence and distance, I argued, which led Bohrer and Hauser to turn to the metaphor of the aerial view as emblematic of the work of archaeological photography; the distance between aircraft and ground coming to stand for the scientific detachment which they saw underpinning the archaeological perspective. As Bohrer wrote "if there is any form of photography today particularly tied to archaeology, it is one that liberates sites from questions of their appearance in human scale" (2011:85).

To what extent does this characterisation of the work expected of photography by archaeologists fit with the material evidence in Crawford's archive? Crawford certainly used the archive for archaeological enquiry. The typological and geographical organisation of the material, combined with the loose sheets of card outfitted with punch holes speak of a collection that was intended to be comparative in purpose and to grow organically as new material came to light. Likewise, Crawford's own suggestion that he modelled the organisational system of the Ordnance Survey photographic and map collections after his personal archive heavily implies that his personal collection was structured in such a manner as to be suitable for working enquiry as a visual reference library (Crawford 1955:167, 214-215). Annotations on individual prints within the collection which provide cross-references; either between photographs, for example the contrasting views of the same site taken across the seasons discussed in the previous chapter (e.g., Figure 4.45) or comparing photographic prints with relevant publications (e.g., Figure 1.24) also add weight to the argument that the collection aided Crawford in assembling evidence and weaving together the fragmentary and partial remains of the past into comprehensible broader narratives. Traces of this kind of comparative work are also preserved in the material arrangement of some of the photographic prints.

Understanding the underlying logic behind this particular use of the photographic archive can certainly make sense out of combinations of photographic prints that have previously been dismissed as chaotic and disordered. Take as an example, a set of photographs taken by American photographer Frank Gilbert Roe which depict the tracks worn into the landscape by herds of migratory buffalo in the valley of Pipestone Creek in Alberta, Canada (Figure 5.2). Copies of these prints can be found in both Box 23 of the archive entitled "Birds, Animals, Trees, Rocks & Flowers" and in Box 16 which otherwise contains photographs from Crawford's time in Sudan. Crawford's contact with Roe seems to have begun in the 1920s when Roe (1929) published an article in *Antiquity* comparing the prevalent theory that the 'winding roads' of England were formed by the

movements of cattle with his observations on the formation of buffalo tracks in Canada. The filing of a set of prints in Box 23 alongside Crawford's studies of ancient cattle breeds and the daisies which lined historic trackways speaks to this initial connection, but decades later in *Archaeology in the Field* (1953) Crawford would draw further comparisons between the animal paths and tracks of England, the buffalo trails of Canada, and the holloways he saw in Sudan and so a second set of Roe's prints are interleaved with Crawford's photographic survey of Sudan.[505] Other examples of duplicate prints spread across the photographic archive also speak to Crawford's daily working practices and pragmatic use of the collection during his lifetime. In Box 14 copies of prints intended for publication in *The Fung Kingdom* (1951) display markings on the reverse which note necessary cropping or enlargement before the images could go to print. Similarly, there is a significant overlap between photographs published in *Antiquity*—both those taken by Crawford and by other contributors—and those appearing within the photographic archive.[506] Though it is often unclear whether these photographs formed part of the archive prior to their publication and were drawn upon as references to illustrate relevant articles, or if their inclusion in the archive arose directly from Crawford's intention to publish them in his journal.

However, when the details of these working practices are examined more closely the metaphor of the totalising clarity of the aerial view to describe the work expected of the archival collection begins to break down.[507] As I argued in the previous chapter, in Crawford's practice his perspective was rarely that of the grand sweep of history presented by Hauser. Far more commonly Crawford worked with the evidence provided by a plethora of fragmented and partial traces. Indeed, throughout this thesis I have found that minute variations in details—like the shifting colour of patches of grass, the relative size and distribution of pebbles and stones on the ground surface, or the sudden feel of rockier soil beneath one's feet—mattered. It was details like these that were the difference between accurately identifying the course of a Roman road or recognising the outline of a fort in the crops and following a false trail. And it is details like these not aerial overviews that make

[505] In *Archaeology in the Field* (1953) Crawford misidentified the location of Roe's photographs as being taken at Gratton Coulee (See Plates 5a to 6b), prompting Roe to write to Crawford in February 1954 offering a second complete set of prints and negatives. Letters from Roe appear as Prints 16.1-4, and photographs by Roe as Prints 16. 5-13, 17-22.

[506] Though the extent of the overlap between the photographic archive and prints published in *Antiquity* has not previously been studied, scholars have drawn attention to the appeal which the heavily illustrated journal held for readers (Hauser 2007, 2008; Ascherson 2008; Stout 2008).

[507] I would also quibble with Hauser's assumption that the aerial view always constitutes clarity of vision. As I have demonstrated in incidents like Crawford's struggles with the weather as an observer in the RFC and in his understanding of the relationship between aerial and terrestrial perspectives during his Scottish fieldwork, the view from the air was just as partial, incomplete and situated as the view from the ground.

up the bulk of Crawford's photographic collection, though they have been steadfastly overlooked in previous studies.

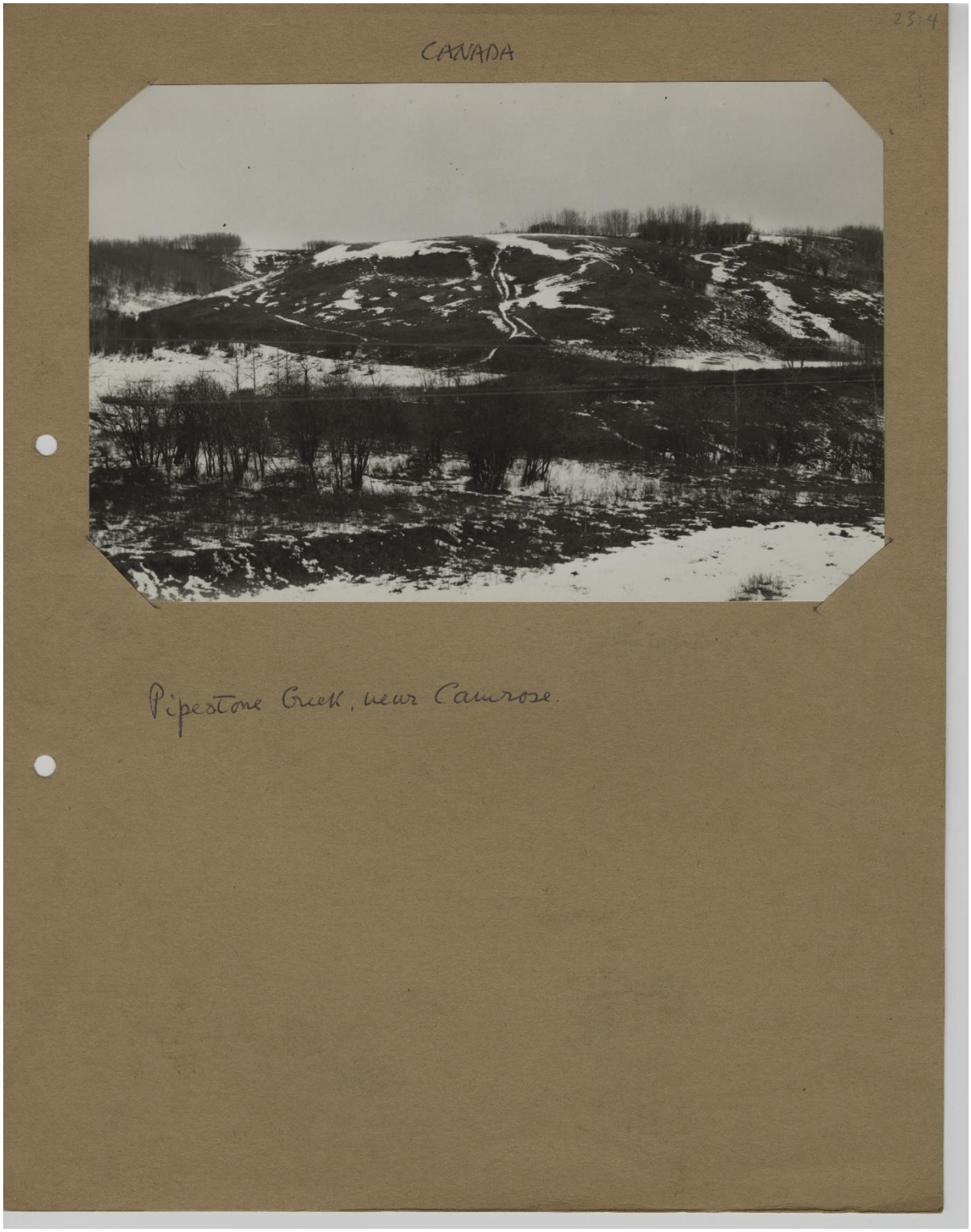


Figure 5.2 Buffalo trails. Print 23.4.

Nor were the meanings and interpretations of photographs within the collection settled or imbued with clarity of purpose, but were rather actively produced, reproduced and reinterpreted collaboratively via the circulation of individual prints and negatives—as was the case for Print 9.30 (Figure 1.13). I have noted the tentative and questioning annotations of prints (e.g., Figure 4.61) and moments where Crawford's authoritative tone in his published work and in archival annotations acted to disguise the reality of his confusion and uncertainty during fieldwork (e.g., Section 3.4.2). Similarly in Chapter Four I highlighted those moments—like Crawford's material assemblage of his archive to contrast and juxtapose perspectives, his adoption of aerial terminology and methods to photograph terrestrial subjects, and his experiences of walking the ground informing his aerial theory—where the distinctions between the view from the sky and the view from the ground began to blur. Though Crawford's photographic archive certainly served pragmatic research purposes during his lifetime, the archive was not a site of certainty driven by a single totalising perspective and comprising the assemblage of 'facts' as Hauser's aerial metaphor leads us to believe. Rather it was a space for trial and error, for testing tentative theories, and accumulating and comparing multiple contrasting and situated perspectives and scales. This theme of the confusion of perspectives contained within the archive—most especially between the distanced and the intimate—reflects a far more substantial problem with the existing framing of Crawford's photographic archive as a working collection characterised by an outlook of scientific detachment.

The formation of an archive is never just an act of pragmatism, but is a symbolic assembling and arranging of documents in ways that activate meaning. These processes of meaning making are apparent at every stage of Crawford's assembling of his archive. Here when I speak of meaning, I do not speak of the production of archaeological knowledge, but Crawford's construction of a narrative about his own life, and the role which affect plays in the archive (cf. E. Edwards 2012). In the introduction I noted that as part of the process of the professionalisation of archaeology in the nineteenth and the twentieth centuries, archaeologists began to construct narratives about the history of the discipline and the role of certain key figures. I also noted Thornton's work demonstrating that these so-called 'Founding Fathers' attained their status by cultivating their own legacies and reputations through their literary output; in a process she termed "scripting spadework" (2018:3). Here I make the case that Crawford actively participated in this process, undertaking a project of self-fashioning that extended beyond his published literary work and into the assemblage, arrangement, presentation and deposition of his photographs and archives.

Though thus far I have discussed those details which speak to Crawford's pragmatic uses for the collection during his own lifetime, there are just as many traces which indicate his ambitions for the life of the collection—and by extension his own legacy—after his death. Of course, this is more

immediately evident in some aspects of the archival collection than others; Crawford's assembling of photographs of himself as a child, family pets and relatives (e.g., Figure 1.16) bear a far more instinctively obvious relationship to autobiographical practices than—for example—his studies of gravestones or details in the masonry of the buildings around Southampton (Figure 4.35). And yet this 'future trajectory' of the collection envisioned by Crawford has been significantly overlooked in previous studies by scholars who have focused solely upon Crawford's use of the collection as a working resource during his own lifetime (cf. Baird and McFadyen 2014). But, as I argued in Chapter Three, the formation of an archive necessarily anticipates that someone in the future will seek out the traces of the past. By the end of his lifetime, secure in his "an almost mythical status among British archaeologists as the uncompromising—if eccentric—progenitor of them all" (Hauser 2008:257), Crawford was keenly aware that researchers in the future would turn to his archival collection—even going so far as to address these future researchers directly; "If you are digging up the past my friend / And hunting for a clue you fondly think / May throw some light upon your victim's life…" (Unsorted Collection MS Crawford; Hauser 2008: xv). As is evident in this quotation, Crawford clearly anticipated that his archives would be of interest, not as sources of archaeological information but for the light they cast upon his personal life.

In the introduction I noted several markers of Crawford's subsequent curation of his self-image in his archives as he accumulated and divested material; the time-consuming process of mounting and annotating prints, his consistent labelling of his own image (e.g., Figure 1.10), his retroactive commentaries on the margins of old papers and his destruction of others. Each of these acts can be understood as attempts to constrain the possible interpretations of the material, sculpting the legacy which Crawford wished to be carried into the future. I then traced the material evidence—often found in the least expected places like hasty scribbles on a tattered envelope (Figure 1.38)—which demonstrated Crawford's equally deliberate consideration of the institutional repositories which he wished to hold his archives after his death. Moreover, I continued to excavate the significance of Crawford's placement of archival documents with specific repositories such as ensuring his own Sudanese work would eventually come to sit alongside the archives of the eighteenth and nineteenth century 'explorers' whose physical journeys and visual style he had come to emulate. Key to understanding Crawford's motivation in undertaking this structured deposition is to look at the ways in which Crawford himself responded to the material traces left behind by previous generations of archaeologists; the consolation he found in knowing that Allen's collection of aerial photographs were safely housed at the Ashmolean (Section 1.5.4), his hunt for 'Marx-Sites' (Figure 1.6), his collection of 'relics' once owned by Tylor (Section 3.3.1) and his almost compulsive recreation of the journeys and vantage points of European travellers in Sudan (e.g., Figure 3.17),

each of which speaks to his long-standing ambitions to locate his own work within an existing canon of 'Founding Fathers' of archaeology and to leave his own footprints in the sands of time in turn (e.g., Figure 3.1). Consequently, to frame the photographic archive as a reference collection characterised by the objective documentation of 'facts' is to misrepresent its nature and purpose just as surely as characterising the archive as a cache of aerial photographs. One of Crawford's most clearly expressed purposes in preparing the collection for deposition after his death was to establish his ongoing legacy within the history of archaeology.

Though I have described above examples of Crawford's deliberate acts of self-production through the management of his photographic archive, as I demonstrated in Chapter Three, it is often impossible to separate the archaeological work which Crawford undertook and his far more cynical attempts at self-fashioning in the manner in which he prepared, presented and deposited his photographic and archival collections. Photographs like that of Crawford's feet in the Khalifa's palace (Figure 3.9) or his 'table in the wilderness' in the Bayuda Desert (Figure 3.20) speak to the ways in which these seemingly opposing purposes might manifest within even a single image in the archive. Indeed, even when Crawford may not have been consciously framing his own legacy it is still possible to find those moments where traces of his individual and situated perspective seep through, thus roundly refuting the suggestion that his photographic practice was characterised by an outlook of scientific detachment.

In the introduction I referenced Hallam and Ingold's reminder that the "becoming of persons and the becoming of things" are "intertwined processes" (2014:xiii). As has become clear throughout the course of this thesis to trace the formation process of Crawford's archive is to simultaneously find oneself following the contours of Crawford's life. One of the greatest barriers to recognising the intimate, personal and affective qualities in Crawford's photographic practice is the pervasive manner in which archaeological photography is written about from the perspective of decontextualised singular images that are assumed to represent frozen moments in time. This too—much like the questions of spatial scale which I explored in the previous chapter—represents a problem of perspective. I have previously noted Baird's (2019) argument that archaeological photography has a problem with time; both the long periods of chronological time which archaeology is used to working with, and the framing of photography as 'freezing time', have historically acted to isolate archaeological photography from a discussion of what Holdaway and Wandsnider (2008) have termed a 'human-time' perspective. This problem of temporal perspective has subsequently contributed to the framing of archaeological photography as "liberate[d]…from questions of…human scale" and thus divorced from the personal and affective (Bohrer 2011:85). Throughout this thesis I have begun to set out the ways in which an archaeology of archives can

begin to recognise the 'human-time' perspective in photography, beginning with a durational approach which understands photography as a temporally extended and embodied practice or process.

Shifting our analytical focus away from the image-content of a photograph and turning instead to consider the circumstances under which a photograph is taken and the processes by which photographs come to reside within an archive can dramatically change our understanding of the emotive charge of photographic images. Tracing the patterns of Crawford's photographic activity across his lifetime—noting gaps, pauses or accelerations in the intensity of his photographic practice—has been deeply revealing of Crawford's motivation or mental state for a given period. Notably his intense and frantic documentation of the finds during his first fifteen minutes at Sutton Hoo (eg., Figure 2.12), or the renewed vigour with which he approached his documentation of Southampton during the Second World War (Section 4.6) can be contrasted with Crawford's palpable disappointment and the paltry three photographs taken upon his return to Abu Geili in 1950 (Figure 3.15), or his long hiatus from photography following the trauma of the First World War (Section 1.5.1). While the slow and gradual accumulation of material relating to poignant sites (as discussed in Chapters Three and Four) speak to Crawford's profound and lifelong obsessions with specific topics of research.[508] Looked upon not as stand-alone images but as material traces of the course of Crawford's life, photographs which have previously been characterised as exercises in dispassionate documentation take on far more affective depths, as with the example of Crawford's study of the bombed-out structures of Southampton following the destruction of his life's work at the Ordnance Survey (e.g., Figure 4.37). Moreover, it is extremely significant that Crawford himself recognised—at least in part—the potential for using his photographic collection in this autobiographical manner. In the foreword to *Said and Done* (1955) Crawford described the process of assembling his memoir; "The lucky survival of old engagement-books, supplemented (for the Thirties) by a detailed negative register, made a coherent narrative possible" (1955:ix). And yet, perhaps unbeknownst to Crawford the personal and affective details that emerge out of the rapid-fire snapshots of Sutton Hoo and the gentle sustained accumulation of photographs of significant places can be used to brush against Crawford's self-fashioning, complicating and thickening our perception of the man behind the myth.

[508] This model of affective meaning and emotional attachment to place developing over long periods of time also radically contrasts with Hauser's model of the instantaneous overview implied by the metaphor of the aerial view.

This is not to say that Crawford never intended to capture such personal details. Throughout this thesis I have continually highlighted those instances where the personal suffuses what might otherwise be thought of as Crawford's professional photographic practice. Moments like Crawford's humorous annotations of Charles Phillips' posture (Figure 2.23), his documentation of the leisure activities of his colleagues at Sutton Hoo (Figure 2.24), his use of photography to bond with Mohammed Abbas (Neg. no. 867/9) and his joint photographic excursions with C.J.P. Cave and the Hampshire Field Club (Figure 4.23) all speak to the fact that even when Crawford's camera was put to seemingly pragmatic uses in the service of archaeology, underscoring the act of 'documentation' were myriad personal and intimate moments of human connection. Working with a camera was not the isolating experience described by Bohrer (2011) where technology acts to isolate the photographer from the activity unfolding before the lens but often provided the spark for social engagement as with the photographs showing Grimes, Phillips and colleagues crowding around Crawford and his camera at Sutton Hoo (Figure 2.29), or in Crawford's heated discussions on the best circumstances to photograph the newly discovered rock art on Stonehenge (Section 4.7.3). Through the act of assembling his archival collection Crawford was actively initiating and strengthening connections with friends and peers.

These personal and intimate moments extend beyond the process of taking photographs and into the ongoing use, display and circulation of photographic prints and acts of archival management, in the form of Crawford's joking and autobiographical annotations of his prints which further trouble the defined boundaries of professional documentation. Indeed the tension between Crawford's recording practices and those more commonly expected of archaeological documentation is most evident in the fate of Crawford's photographs held by the British Museum, where notes documenting Crawford's affective experiences of excavation were selectively erased, as for example in the contrast between Print O.G.S.C 198 (Figure 2.75) and the equivalent print in Crawford's photographic archive Print 2.64 (Figure 2.20) with Crawford's cheerful note identifying Grimes' "peeved" expression. And in a reversal of Crawford's personal annotations adding levity to professional conduct, Crawford's treatment of photographs of a far more informal subject matter often imparts a sense of gravitas, as with Print 49.27 in which—much like his labelling of the archaeologists at Sutton Hoo—Crawford carefully transcribes the names of each of his pet cats depicted in the photograph, notes the date and time at which the picture was taken, and details a negative number on the mount. The fact that photographs of friends, colleagues, cats and mushrooms are all mounted identically, ascribed negative numbers, systematically grouped, and are annotated just as effusively as his 'archaeological' photographs strongly implies that Crawford

anticipated that they should be treated as equally integral aspects of the collection.[509] The inclusion of these prints was no mere afterthought, but the result of deliberate and time-consuming acts preparing the contents of the archive for future generations.

Moreover, these photographs from the collection often act as striking reminders of the sheer variety of purposes to which Crawford put photography. Print 23.25 (Figure 5.3) shows a bunch of sunflowers hanging up to dry in Hope Villa. In the top right-hand corner of the print a framed photograph of a cat crossing an alleyway is visible. In the present this once-framed photograph of the cat can be found mounted on card alongside similar studies of animals in Box 49. Examples like this demonstrate the ease with which photographs move between categories throughout their lives, from domestic decoration to archival resource, and what is more speak to the extent to which the contents of Crawford's photographic archive were not always contained within formal collections but spilled out into his personal life. Much like my discussion of the significance of the rapid-exchange of photographs and letters in Chapter One blurring the boundaries between the personal and the professional (e.g., Figure 1.12) recognising the domestic contexts in which Crawford used and worked with photographs which later came to settle in his archival collection challenges us to reconsider descriptions of archaeological archives as dispassionate repositories of 'facts' alone. Nor were these more personal uses of photography unique to Crawford, as is evidenced by the prints which have come to the photographic archive as a result of the light-hearted repurposing of archaeological documentation as postcards and greetings cards circulated between archaeological friends and colleagues (e.g., Figure 1.14 & Figure 4.46). Even photographic subjects of a distinctively domestic nature became ciphers for the experiences of archaeologists and offer fascinating glimpses into the politics of inter-war archaeology; as is the case for Print 49.108—a postcard sent to Crawford by Alexander Keiller depicting a man and a goat butting heads annotated "the perennial antagonism between the layman in arch[sic] matters and the non-distinct expert archaeologist". Photographs like these simply cannot be framed as functioning as dispassionate stores of information, rather they are deeply loaded with personal, emotive and social significance.

[509] At times this preparation took on a tone of tongue-in-cheek mimicry of serious study, as for example in the compilation of a typological study of "Various pigs in various parts of Great Britain and Ireland" (See Print 49.91).



Figure 5.3 Cats and sunflowers at Hope Villa.

Holding just these few examples in mind, it is possible to return to Hauser's framing of the photographic archive as assembled to function as a dispassionate working collection with renewed scepticism. Bohrer writes "archaeology has taken pains to characterise its photographic images as purely documentary material evidence, not products of individual imagination or aesthetic delectation" (2011:141). As I argued in the introduction this reading of the nature and purpose of archaeological photography is overly dependent on the analysis of particular categories of archaeological images—the spectacular, posed and formal published visions of the discipline—to the detriment of any sustained engagement with the plethora of alternative uses to which archaeologists were putting the camera, the print and the archive. Inherent in this focus is the methodological tendency to separate individual published images from their broader archival context, which can often offer a far more nuanced picture of the social role which photography played. There is an invitation here for future scholars to eschew the consideration of published images and turn again to the archives of archaeology seeking out very different kinds of photographs which speak to the variety of uses to which photography was put.

Indeed, that this anxiety over the evidential qualities of archaeological photography exists at all should be taken as an indication that the boundaries between the personal and professional uses of archaeological archives are nowhere near as cemented as archaeologists might like to admit. While archaeologists in the twentieth century may have been writing publicly about the importance of adhering to the developing disciplinary visual conventions and championing the publication of photographs which met these standards, in private the circulation and exchange of photographs between peers demonstrate that photography was a far more unruly medium. As I have demonstrated time and time again in this thesis, the public pronouncements which Crawford made about his archaeological work in publications and in the heavily edited pages of his archive, and what the evidence from his photographic archive suggests he actually did in practice are two very different things. Barber has made the similar observation concerning Crawford's tendencies towards the romantic; "The problem of course is recognising…boundaries adhered to in public and those in place in private, among one's friends, colleagues, and peers" (Barber 2016:6). The challenge lies in finding methods of analysis that allow these layers—the public and the private, the intimate and the distanced, the aerial and the terrestrial—to commune with each other.

I have used the concept of assemblage as both the theoretical vantage point from which to view Crawford's archive and as a methodological blueprint for navigating the collection. Unlike the aerial metaphor which led to Hauser viewing the photographic archive from a single all-encompassing perspective and attempting to draw one singular purpose from the collection, an assemblage-based approach leaves room to understand that meaning arises out of archival encounters from a number

of scales and perspectives. Throughout this thesis I have demonstrated the scales on which meaning is constructed in the photographic archive; from the interactions between the annotations on individual print mounts and photographic prints; the interrelationships between series of photographs contained within the same archival box (as in Chapter Two); the genealogical links which run across archival collections (as in Chapter Three); to the broader connections across the entirety of an archival collection (as in Chapter Four). Similarly, I have worked across temporal scales; beginning with the meanings to be found in the broad patterns of accumulation, reformulation and divestment across the formation process of the archival assemblage in Chapter One, then narrowing down to explore the significance of Crawford's frantic work in the minutes and seconds at Sutton Hoo in Chapter Two, before broadening my scope once more to examine Crawford's accumulation of photographs of significant places over decades of his life in Chapters Three and Four. To speak of assemblage is to invite an interrogation of Crawford's archive from each of these scales, to recognise that for Crawford the collection served many—sometimes outright contradictory—purposes. Recognising the varied roles and purposes to which Crawford's photographs were put throughout their lives opens up future pathways for speaking about the complexity of the ways in which other archaeologists in the twentieth century used photography, beyond the pallid characterisation of the medium as a tool for the straightforward documentation of 'facts'. In this thesis I have highlighted the uses of photographs for social and affective purposes by such prominent archaeologists as Mortimer Wheeler, Stuart Piggott and Alexander Keiller. The examples from Crawford's archive are not unique occurrences particular to Crawford's use of the medium but are indicative of far more wide-spread patterns of behaviour which warrant future investigation. But so too does studying Crawford's purposes in assembling his photographic collection, the myriad uses which it served, and reflecting on how the archive came to reach the Institute of Archaeology in its present form offer other far-reaching consequences.

Examining the formation of Crawford's photographic collection through the lens of assemblage can explode the myth of the singular 'Founding Father' figure in the history of archaeology. As I have already argued, Hauser's metaphor of the totalising clarity of the aerial view to describe the collection imparts a sense that Crawford's photographic archive represents the magnum opus driven by a single perspective. Yet, as I demonstrated in my discussion of the confusion of scales and perspectives represented in the collection, Crawford was far from the only influence who played a role in contributing to and shaping the photographic archive as it appears in the present day. Tracing the creation, circulation and deposition of Crawford's photographs has revealed the contributions of a plethora of influences at every stage of the photographic and archival process. I noted physical contributions to the formation of the photographic archive in the form of postcards and

photographs sent by friends and colleagues (e.g., Figure 1.25), and Crawford's collection of newspaper and magazine cuttings (Figure 4.60) and other ephemera. So too have I noted the more ephemeral and often-unacknowledged yet equally essential contributions by figures like Basil Brown, Mohammed Abbas, Hasan Ibrahim and Mohammed Faqir in enabling Crawford's photographic practice. Working across Crawford's photographs in this manner has revealed a very different side to the practice of archaeological photography; far from the lone pioneering scientist possessed of a detached and totalising gaze we see networks of relationships, exchanges of knowledge, collaborative working, but also the erasure of the labour of some of the most vital contributors to the discipline. Taking an assemblage approach to studying the formation of archaeological archives means adopting a mindset that rejects the twentieth century vision of archaeology as the product of individual pioneering figures and seeks instead to approach any account of archaeological labour with an awareness of the collective production of archaeological knowledge.

Though Crawford deliberately filtered sections of his archive to institutional repositories during his lifetime and left explicit instructions for the deposition of both his photographs and written papers, the transition of Crawford's archive from a curated personal collection to the ministrations of professionally managed institutions implicated each constituent sub-section of the archival assemblage within networks of human and other-than-human actors which have played roles in shaping the ongoing formation of the archival assemblage following Crawford's death in 1957. Each of these uses and users have left behind physical traces in the material form and structure of the collection which have subtly—and sometimes not so subtly—shifted the meanings that emerge from the photographs. Understanding the movements and uses of the photographic collection in the years following 1957 is a challenging task—these are not the kinds of details that are often recorded in institutional documentation, and yet throughout this thesis I have traced the stories of the formation of the archive that have emerged from the very materiality of the archival documents—in the creases, folds, and stains, pin and punch holes, the wear to paper and card. In the introduction, I highlighted some of the many individuals who have left their mark on the formation of sub-sections of the collection after Crawford's death—from Harold Edwards' elegiac demarcation of the last photographs and letters sent by Crawford (Figure 1.28), the subtle traces of Mary Clapinson's personal touch in her re-positioning of the written papers from personal keepsakes to scholarly resource (Figure 1.33), to the far more conspicuous marks of re-arrangement left by the mystery archivist at the Institute of Archaeology (Section 1.5.4). Likewise throughout this thesis I have demonstrated how decisions made at institutional levels like the Bodleian's cataloguing push in 1978 (Section 1.5.3), the Ashmolean Museum's re-arrangement of its collections to coincide with the founding of the Institute of Archaeology in Oxford (Section 1.5.4), and the British Museum's growing

funding for the Celtic, Anglo-Saxon, Viking and Continental Germanic Collections under the helm of Bruce Mitford in 1960 (Section 2.5) have each played roles in shaping the meanings and uses of sub-sections of Crawford's archives. Crawford's archival deposits as they are encountered in the present are not the product of a single individual, nor do they consistently and faithfully preserve the meanings and internal structure of the archive as it existed during Crawford's lifetime. Rather these collections represent a mélange of influences and perspectives beginning with Crawford himself and extending into my own work on the photographic archive in the present day.

This brings me back one final time to the issue of Crawford's aerial legacy. In the introduction I argued that considering the formation process behind a photographic archive was to move beyond the study of a single depositional context and instead think more broadly about the material and conceptual linkages which develop between archival collections and the way in which people, places and things become enmeshed—to varying degrees of reversibility—with archival collections. Understanding the problem of perception that has historically surrounded Crawford's photographic archive requires looking not only at the physical photographic prints and their position within the Institute of Archaeology but in a much more holistic manner at the layers of scholarly publications and shifting patterns in academic theory and archival practice which have enveloped the archive at varying stages in its formation. Speaking of the formation of archaeological archives in this way is to recognise the role which we as scholars and archivists play within the ongoing interpretation of archival assemblages (Fowler 2013; Hitchcock 2020). Both Hauser (2007, 2008), Stout (2008) and Bohrer (2011) have over-determined the extent to which Crawford participated in a rigid system of 'objective' and detached scientific recording. As I suggested in Chapter Two the questions and assumptions which researchers bring to archaeological photographs and archives determine the meanings which subsequently arise out of them. Existing portrayals of Crawford's work arose out of a historiographic moment where scholars interrogated the power dynamics behind the professionalisation of archaeology; Stout contrasting Crawford's brand of 'Dirt' archaeology with the more unorthodox practices of neopagans and local archaeological societies and Hauser similarly positioning Crawford's work in opposition to that of the Neo-Romantic art movement. In this thesis—seeking as I have examples of Crawford's personal presence in the archive—I have found traces of a very different side to Crawford's photographic practice, and with it have presented an alternative vision of professional archaeology in the early twentieth century.

Archives are not passive stores of knowledge, rather—as I demonstrated in Chapter Three—the archival encounter can be a highly affective experience which shapes both collection and researcher. Throughout this thesis I have deliberately interwoven a series of autoethnographic anecdotes from my own archival encounters into each chapter as a means of foregrounding my own presence and

making explicit both the pathways which I have taken and my purpose in doing so. Similarly, the adoption of a first-person narrative voice has been a device to achieve a similar effect. Such measures—I hope—introduce the sense that the meanings which I have taken from Crawford's photographs arise out of a conversation between myself, the materiality of Crawford's archives, the institutional spaces across which the archival assemblage is spread, contemporary theoretical concerns within archaeology, the work of a previous generation of archaeologists, researchers and archivists; in short a conversation that takes place within and about the archival assemblage.

Moreover, in writing about my experiences of the research process I have demonstrated that though the material form of the photographic archive may initially seem to resist attempts to forge new pathways through the collection such alternative approaches are possible. As I suggested in Chapter One and explored in Chapter Four following new trails through Crawford's archival assemblage may demand very different physical movements from the researcher—rather than systematically proceeding through a single box of material at a time, instead working across multiple boxes of material spread across institutions simultaneously to pull disconnected threads into dialogue with each other. Seeking out these pathways has only been possible on account of the kind of slow-looking that arises out of long periods of time spent immersed in the archive.[510] This too represents a disjuncture from the kinds of fleeting archive visits which scholars are often forced to take due to external time pressures. And yet, as demonstrated in Crawford's own work intimacy and meaning often arises out of series of repeated returns over long-drawn-out periods of time.[511] One of the most important lessons that has developed out of this research project is the importance of giving time to the archive and being open to following where it leads—even if those pathways at first seem to bear no obvious connection to the subject of study. For it is often these unexpected pathways that hold the answers to questions we did not even know we should ask. And it is on this note of pathways, of working upwards from the evidence contained within the archival collection rather than down from Crawford's legacy, and of honouring the seemingly insignificant details contained within a collection which brings me back one final time, to the photograph of Crawford's feet (Figure 1.1).

[510] I use the phrase 'slow-looking' as a play upon the phrase 'close-looking' which is often used to describe the search for unanticipated details in photographic images.

[511] Bradley notes the irony, that despite archaeological theory describing longstanding relationships between past people and place "as archaeologists, we have developed recording procedures that can make us insensitive to those very features. All too rarely can we spend long enough with our material." (2003:162).

6 Bibliography

6.1 Archival Sources

Note: All photographs and scans of archival and printed material are by the author unless otherwise stated.

British Academy, London.

Correspondence between O.G.S. Crawford and M. Wheeler. Files: Antiquity MWA/6/1 & BAA/EVS/9/3/4.

British Museum (Department of Britain, Europe and Prehistory) London.

Correspondence between O.G.S. Crawford and C.W. Phillips. Files: SH Photog-Excav I, 1939 & PHILLIPS CORRESPONDENCE FILE 719/6 BM

Basil Brown, Photograph Albums (Two volumes)

Maurice Cookson, Loose Photographic Prints and Negatives.

O.G.S. Crawford, Loose Photographic Prints and Negatives.

Mercie Lack, Loose Photographic Prints.

Peggy Piggott, Loose Photographic Prints.

Barbara Wagstaff, Loose Photographic Prints.

Bodleian Library, Oxford.

MS Crawford. Boxes 1-136.

Griffith Institute, Oxford.

Linant de Bellefonds, Glass Plate Negatives.

G.A. Hoskins Watercolour Albums. Also available online at: http://www.griffith.ox.ac.uk/gri/4hoskins_gallery.html

O.G.S. Crawford, Original Plans from the British Academy Middle Nile Expedition, published as *Castles and Churches in the Middle Nile Region (1953)* (Rolls I & II).

O.G.S Crawford, Original Drawings for *The Fung Kingdom of Sennar (1951)* (Rolls III & IV).

Institute of Archaeology, Oxford.

O.G.S. Crawford Photographic Archive (Boxes 1-50).

O.G.S. Crawford Archive Box. Containing Crawford's Will, Morely (2012), Correspondence between R.W. Hamilton and Christopher Hawkes, and documentation relating to the copyright status of the archive.

O.G.S. Crawford Negative Registers.

Keble College Archive, Oxford.

O.G.S. Crawford, Handwritten reminiscences on Keble College. AD 50/1.

Osney One Storage Facility, Oxford.

O.G.S. Crawford Negatives.

Pitt Rivers Museum, Oxford.

O.G.S. Crawford, Objects donated to the Museum. Notably two pots previously owned by E.B. Tylor. 1952.12.8 & 9

Prehistoric Society Archive, University of Bradford.

Correspondence between C.W. Phillips and C. Hawkes.

Sackler Library, Oxford.

O.G.S. Crawford, 'A Tour in Bolshevy'. Typescript. 580 C.124.

Wellcome Collection, London.

Correspondence between O.G.S. Crawford and H. Wellcome. WA/HMM/CO/Ear/311.

6.2 Published Sources

Abadía, O. M. 2006. The History of Archaeology as a 'Colonial Discourse', *Bulletin of the History of Archaeology*, 16(2), pp. 4–17.

Abadía, O.M. 2009. The History of Archaeology as Seen Through the Externalism-Internalism Debate: Historical Development and Current Challenges, *Bulletin of the History of Archaeology*, 19(2), pp. 13–26.

Abilova, R. 2019. Photographic Collections in Post-Soviet Russia and the Development of Russian Photographic Scholarship, *Photography and Culture*, 12(2), pp. 273–278.

Acker, A. et al. 2019. Information Maintenance as a Practice of Care [Project Website]. Available at: https://themaintainers.org/research/ (Accessed: 20 June 2019).

Adam, A. ed. 2020. *Crime and the Construction of Forensic Objectivity From 1850*. London: Palgrave Macmillan.

Addison, F. 1949. *Jebel Moya*. London: Published for the Trustees of the late Sir Henry Wellcome by the Oxford University Press.

Adebisi, F.I. 2019. Why I Say "Decolonisation is Impossible" [Blog], *Foluke's African Skies*, 17 December 2019. Available at: https://folukeafrica.com/why-i-say-decolonisation-is-impossible/ (Accessed: 7 January 2020).

Adeel, A. 2013. Henry Solomon Wellcome: A Philanthropist and a Pioneer Sponsor of Medical Research in the Sudan, *Sudan Journal of Paediatrics, 13(2),* pp. 84–102.

Agrawal, R. 2018. *Built: The Hidden Stories Behind our Structures*. New York: Bloomsbury.

Ahmad, A. 1992. Orientalism and After: Ambivalence and Cosmopolitan Location in the Work of Edward Said, *Economic and Political Weekly,* 27(30), pp.98–116.

Akar, M., and Maloigne, H. 2014. Envisioning the Past, Documenting the Present in The Forgotten Kingdom. In: Akar, M. and Maloigne, H. 2014. *Archaeology and Photography at Ancient Alalakh*. Stanbul: Koç University Press, pp. 134-141.

Akerman, J.Y., and Stone, S. 1858. Account of some Remarkable Circular Trenches...at Standlake, *Archaeologia*, 37(1), pp. 1–8.

Alberti, B., Jones, A., and Pollard, J. 2013. *Archaeology after Interpretation: Returning Materials to Archaeological Theory*. Walnut Creek, California: Left Coast Press.

Aldred, Oscar. 2019. The Aerial Imagination. In: McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.193-208.

Allen, J. 2016. Introducing the Social History of the Archive [Blog]. *Past and Present*, 24 October 2016. Available at: https://pastandpresent.org.uk/introducing-social-history-archive/ (Accessed: 15 October 2019).

Allen, J.S. and Jobson, R.C. 2016. The Decolonizing Generation: Race and Theory in Anthropology since the Eighties, *Current Anthropology*, 57(2), pp. 129–148.

Allen, W. 1840. *Picturesque Views on the River Niger: Sketched during Lander's Last Visit in 1832-33*. London: J. Murray.

Allison, P. 2008. Dealing with Legacy Data: An Introduction, *Internet Archaeology*, 24 [Online]. Available at: http://dx.doi.org/10.11141/ia.24.8 [Accessed 15/11/2018].

Alpers, S. 1991. The Museum as a Way of Seeing. In: Karp, I., and Lavine, S. eds., 1991. *Exhibiting Cultures: The Poetics and Politics of Museum Display.* Washington: Smithsonian Institution Press, pp.25-32.

Amad, P. 2012. From God's-eye to Camera-eye: Aerial Photography's Post-humanist and Neo-humanist Visions of the World, *History of Photography*, 36(1), pp. 66–86.

Anderson, B. 2006 [1983]. *Imagined Communities: Reflections on the Origin and Spread of Nationalism* [2nd ed]. London: Verso.

Andrews, G., Barrett, J.C., and Lewis, J.S.C. 2000. Interpretation not Record: The Practice of Archaeology, *Antiquity*, 74(285), pp. 525–530.

Anon. 1905. 'Neolithic Dew-Ponds and Cattle-Ways' by Hubbard, A. and Hubbard, G., *Notes and Queries*, s10-IV(92), pp. 280–280.

Anon. 1917. Weather Observation from an Aeroplane. By C. K. M. Douglas, Lieut, Royal Flying Corps…, *Quarterly Journal of the Royal Meteorological Society*, 43(182), pp. 227–229.

Anon. 1939. Archaeological Reconnaissance in Roman Scotland, *Nature*, 144(3647), pp. 543–543.

Anon. 1953. Science and Applications of Photography: Centenary of the Royal Photographic Society, *Nature*, 172, pp. 1121–1125.

Anthony, S. 2009. 'Bloody Old Britain: O.G.S. Crawford and the Archaeology of Modern Life' by Kitty Hauser, *Twentieth Century British History*, 20(2), pp. 258–260.

Appadurai, A. 1986. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Arago, D.F. 1980 [1839]. Report. In: Trachtenberg, A. ed., 1980. *Classic Essays on Photography*. Stony Creek: Leete's Island Books, pp.15-26.

Archer, I.W. [N.D.] Archaeology and Anthropology at Keble: A History. [Online]. Available at: https://www.keble.ox.ac.uk/about/past/archaeology-and-anthropology-at-keble-a-history [Accessed 15/06/2018].

Arendt, H. 1970 [1968]. *Men in Dark Times*. London: Cape.

Arkell, A.J. 1949. *Early Khartoum: An Account of the Excavation of an Early Occupation Site*. London: Oxford University Press.

Arkell, A.J. 1953. *Shaheinab: An Account of the Excavation of a Neolithic Occupation Site Carried out for the Sudan Antiquities Service in 1949-50*. London: Published for the Sudan Government by Oxford University Press.

Arkell, A.J. 1955a. *A History of the Sudan: From the Earliest Times to 1821*. London: University of London, Athlone Press.

Arkell, A.J. 1955b. Jebel Moya, by Addison Frank, with a chapter by Lacaille A. D. Vols. 1 (text) and II (plates) of the Wellcome Excavations in the Sudan, pp. XIV + 399, 123 text figs., CXVI pls. Oxford University Press, 1949. £6 6s, *Proceedings of the Prehistoric Society*, 20(01), pp. 126–130.

Arkell, A.J. 1959. O.G.S. Crawford, 1886-1957, *Kush*, 7, pp.232-235.

Arkell, A.J., Holt, P.M., and Shinnie, P.L. 1952. Correspondence, *Sudan Notes and Records*, 33(1), pp. 181–186.

Arnold, K. 2003. *Medicine Man: The Forgotten Museum of Henry Wellcome*. London: British Museum.

Asad, T. 1998. *Anthropology & the Colonial Encounter*. Amherst, NY: Humanity Books.

Ascherson, N. 2008. 'Bloody Old Britain: O.G.S. Crawford and the Archaeology of Modern Life' by Kitty Hauser, *Public Archaeology*, 7(2), pp. 139–143.

Ashmolean Museum, The. 1948. *Guide to an Exhibition of Air-photographs of Archaeological Sites: Ashmolean Museum Oxford.* Oxford: University Press.

Ashmolean Museum, The. 1958. *Report of the Visitors of the Ashmolean Museum for the Year 1958.* Oxford: Oxford University Press.

Ashmolean Museum, The. 2000. *Catalogue of the Predynastic Egyptian Collection in the Ashmolean Museum, with addenda*. Oxford: Griffith Institute; Ashmolean Museum.

Atalay, S. 2007. Indigenous Archaeology as Decolonizing Practice, *American Indian Quarterly*, 30, pp.280–310.

Atalay, S. 2012. *Community-based Archaeology: Research with, by, and for Indigenous and Local Communities*. Berkeley: University of California Press.

Avnet, T., and Sellier, A.L. 2011. Clock Time vs. Event Time: Temporal Culture or Self-Regulation? *Journal of Experimental Social Psychology*, 47(3), pp. 665–667.

Baedeker, K. 1914. *Egypt and the Sûdân: Handbook for Travellers. [7th ed].* Leipzig: Karl Baedeker.

Bagh, T. 2015. *Finds from J. Garstang's excavations in Meroe and F. Ll. Griffith's in Kawa, Sudan in the Ny Carlsberg Glyptotek*. Copenhagen: Ny Carlsberg Glyptotek.

Bahn, P.G. 1996. *The Cambridge Illustrated History of Archaeology*. Cambridge: University Press.

Bailey, D., and McFadyen, L. 2010. Built Objects. In: Beaudry, M. and Hicks, D. 2010. *The Oxford Handbook of Material Culture Studies* [Online]. Oxford: Oxford University Press. Available at: https://doi.org/10.1093/oxfordhb/9780199218714.001.0001 (Accessed 18 September 2018).

Baines, A. 2005. Using Photography in Archaeology. In: Brophy, K. and Cowley, D. eds., 2005. *From the Air: Understanding Aerial Archaeology.* Stroud: Tempus, pp. 168–185.

Baird, J.A. 2011. Photographing the Dura Europa's 1928-1937: An Archaeology of the Archive, *American Journal of Archaeology,* 115(3), pp.427-446.

Baird, J.A. 2012. Re-excavating the House of the Dura-Europos, *Journal of Roman Archaeology*, 25, pp.146-169.

Baird, J.A. 2017. Framing the Past: Situating the Archaeological in Photographs, *Journal of Latin American Cultural Studies*, 26(2), pp.165–186.

Baird, J.A. 2019. Exposing Archaeology: Time in Archaeological Photographs. In: McFadyen, L. and Hicks, D. eds., 2019*. Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.73-95.

Baird, J.A., and McFadyen, L. 2014. Towards an Archaeology of Archaeological Archives, *Archaeological Review from Cambridge*, 29(2), pp.14-31.

Ballerini, J. 2004. Rewriting the Nubia Figure in the Photograph: Maxime Du Camp's 'Cultural Hypochondria'. In: Hight, E.M and Sampson, G.D. eds., 2004. *Colonialist Photography: Imag(in)ing Race and Place.* New York: Routledge, pp. 30–50.

Ballerini, J. 2010. *The Stillness of Hajj Ishmael: Maxime Du Camp's 1850 Photographic Encounters*. New York: iUniverse.

Banks, M. and Ruby, J. 2011. *Made to be Seen: Perspectives on the History of Visual Anthropology*. Chicago: University of Chicago Press.

Banta, M. 2017. *From Site to Sight: Anthropology, Photography, and the Power of Imagery*. Cambridge, Massachusetts: Peabody Museum Press & Harvard University.

Baranowski, S. et al., 2015. Tourism and Empire, *Journal of Tourism History*, 7(1–2), pp. 100–130.

Barber, M. 2011. *A History of Aerial Photography and Archaeology: Mata Hari's Glass Eye and Other Stories.* Swindon: English Heritage.

Barber, M. 2015. Crawford in 3D: The Stereoscope in Early Aerial Archaeology, *AARGnews*, 51, pp. 32–47.

Barber, M. 2016. Capturing the Material Invisible: OGS Crawford, Ghosts and the Stonehenge Avenue, *Bulletin of the History of Archaeology,* 26(1), pp.1-23.

Barber, M. 2016b. The Lost Works of OGS Crawford (and Others) [Blog]. *Histories of Archaeology Research Network*, 19 February 2016. Available at: https://harngroup.wordpress.com/2016/02/19/the-lost-works-of-ogs-crawford-and-others/ (Accessed: 30 September 2020).

Barclay, G.J., and Brophy, K. 2020. 'A Veritable Chauvinism of Prehistory': Nationalist Prehistories and the 'British' Late Neolithic Mythos, *Archaeological Journal*, 178(2), pp.1–31.

Barker, P. 1993 [1977]. *Techniques of Archaeological Excavation* [3rd ed]. London: Batsford.

Barthes, R. 1977. Image Music Text. London: Fontana Press.

Barthes, R. 2000 [1982]. *Camera Lucida.* London: Random House Vintage.

Barua, M. 2018. Animal Work: Metabolic, Ecological, Affective. *Cultural Anthropology* [Online]. Available at: https://culanth.org/fieldsights/519-the-naturalization-of-work [Accessed 19/09/2018].

Basso, K.H. 1996. *Wisdom Sits in Places: Landscape and Language Among the Western Apache*. Albuquerque: University of New Mexico Press.

Batchen, G. 1997. *Photography's Objects.* Albuquerque: University of New Mexico Art Museum.

Batchen, G. 1997b. *Burning with Desire: The Conception of Photography*. Cambridge: The MIT Press.

Bate, D., and Wells, L. 2019. Editorial, *Photographies*, 12(2), pp. 135–135.

Bate, D. 2010. The Memory of Photography, *Photographies*, 3(2), pp. 243–257.

Bateman, J. 2006. Pictures, Ideas and Things: The Production and Currency of Archaeological Images. In: Edgeworth, M. ed., 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations.* Oxford: AltaMira Press, pp.68-82.

Bednarski, A., and Benson-Harer, W. 2013. The Explorations of Frédéric Cailliaud, *Aramco World,* 61(1) [Online]. Available at: https://archive.aramcoworld.com/issue/201301/the.explorations.of.fr.d.ric.cailliaud.htm (Accessed: 12 January 2020).

Beisaw, A.M. 2010. Archaeology without Excavation: Digging Through the Archives of the Pennsylvania State Museum, *Pennsylvania History*, 77(4), pp. 467–476.

Belknap, G. 2014. Through the Looking Glass: Photography, Science and Imperial Motivations in John Thomson's Photographic Expeditions, *History of Science*, 52(1), pp. 73–97.

Bell, A. H. 2020. Bodies in the Bed: English Crime Scene Photographs as Documentary Images. In: Adam, A. ed. 2020. *Crime and the Construction of Forensic Objectivity From 1850.* Cham: Palgrave Macmillan, pp. 17–41.

Bell, M., and Leary, J. 2020. Pathways to Past Ways: A Positive Approach to Routeways and Mobility, *Antiquity*, 94(377), pp. 1349–1359.

Benden, D.M. and Taft, M.C. 2019. A Long View of Archaeological Collections Care, Preservation, and Management, *Advances in Archaeological Practice*, 7(3), pp. 217–223.

Bender, B. ed., 1993. *Landscape, Politics and Perspective.* Oxford: Berg.

Bender, B. 1998. *Stonehenge: Making Space*. Oxford: Berg.

Bender, B. 2007. *Stone Worlds: Narrative and Reflexivity in Landscape Archaeology*. Oxford: Berg.

Benjamin, W. 2008. *The Work of Art in the Age of its Technological Reproducibility and Other Writings on Media*. Cambridge MA: The Belknap Press & Harvard University Press.

Benjamin, W. 2015. *On Photography*. London: Reaktion Books.

Benjamin, W. 2019. *The Storyteller Essays*. New York: Review Books.

Bennett, T. 1995. *The Birth of the Museum: History, Theory, Politics*. London: Routledge.

Berger, J. 2008. *Ways of Seeing*. London: Penguin

Bergson, H. 1911. *Creative Evolution.* New York: H. Holt and Company.

Berman, M. 1983. *All that is Solid Melts into Air: The Experience of Modernity*. London: Verso.

Berry, D. 2021. The House Archives Built, *up//root* [Online]. Available at: https://www.uproot.space/features/thehouse-archives-built (Accessed 1 August 2021).

Besky, S., and Blanchette, A. 2018.The Naturalization of Work: Theorizing the Contemporary, *Cultural Anthropology* [Online]. Available at: https://culanth.org/fieldsights/519-the-naturalization-of-work (Accessed 19 September 2018).

Bevan, R. 2016. Commentary. In: *New Bodleian: Making the Weston Library.* Oxford: Bodleian Library in Association with WilkinsonEyre and Mace, pp.12-37.

Bewley, R. H., and Rączkowski, W. 2002. *Aerial Archaeology Developing Future Practice*. Amsterdam: IOS Press.

Bhabha, H.K. 2004. *The Location of Culture*. London: Routledge.

Bille, M. 2010. *An Anthropology of Absence: Materializations of Transcendence and Loss*. New York: Springer.

Bintliff, J.L. 1991. *The Annales School and Archaeology*. Leicester: Leicester University Press.

Black, B.J. 2012. *A Room of His Own: A Literary-Cultural Study of Victorian Clubland*. Athens, Ohio: Ohio University Press.

Blakey, M.L. 2020. Archaeology under the Blinding Light of Race, *Current Anthropology*, 61(S22), pp. 183–197.

Block, L.A. [N.D] *Seeing the USSR*. Moscow: Intourist.

Bloch, R.H. 2006. *A Needle in the Right Hand of God: The Norman Conquest of 1066 and the Making and Meaning of the Bayeux Tapestry*. New York: Random House.

Blouin, F.X. 2011. *Processing the Past: Contesting Authority in History and the Archives*. Oxford: Oxford University Press.

Blouin, K. 2018. Exhibiting Antiquity beyond the Clichés: An Ancient Historian's Dos and Don'ts' [Blog]. *Everyday Orientalism*. 1 August 2018. Available at: https://everydayorientalism.wordpress.com/2018/08/01/exhibiting-antiquity-beyond-the-cliches-an-ancient-historians-dos-and-donts/ (Accessed: 9 January 2020).

Bodleian Libraries, The. 1947. *Annual Report of the Curators of the Bodleian Libraries for 1947-1948.* Oxford: Oxford University Press.

Bodleian Libraries. 2018. About Us. [Online]. Available at: https://www.bodleian.ox.ac.uk/about [Accessed 01/02/2018].

Boer, L., and Wagemakers, B. 2014. *Archaeology in the Land of 'Tells and Ruins': A History of Excavations in the Holy Land inspired by the Photographs and Accounts of Leo Boer*. Oxford: Oxbow Books.

Bohrer, F.N. 2003. *Orientalism and Visual Culture: Imagining Mesopotamia in Nineteenth Century Europe*. Cambridge: Cambridge University Press.

Bohrer, F. N. 2011. *Photography and Archaeology*. London: Reaktion Books.

Bohrer, F.N. 2015. Doors into the Past: W.J. Stillman (and Freud) on the Acropolis. In: Carabott, P., Hamilakis, Y., and Papargyriou, E. eds., 2015. *Camera Graeca: Photographs, Narratives, Materialities*. Farnham: Ashgate, pp. 95-112.

Bolton, R. 1989. *The Contest of Meaning: Critical Histories of Photography*. London: MIT Press.

Bourgeois, J., and Stichelbaut, B. eds., 2009. Images of Conflict: An Introduction. In: Bourgeois, J. and Stichelbaut, B. eds., 2009. *Images of Conflict: Military Aerial Photography and Archaeology*. Newcastle: Cambridge Scholars Publisher, pp. 1–12.

Bourke, J. 1996. *Dismembering the Male: Men's Bodies, Britain and the Great War*. Chicago: University of Chicago Press.

Bovill, E.W. 1933. *Caravans of the Old Sahara: An Introduction to the History of the Western Sudan*. London: Published for the International Institute of African Languages & Cultures by Oxford University Press.

Bowden, M. 2001. Mapping the Past: O. G. S. Crawford and the Development of Landscape Studies, *Landscapes*, 2(2), pp.29–45.

Bowden, M., and McOmish, D. 2011. A British Tradition? Mapping the Archaeological Landscape, *Landscapes*, 12(2), pp. 20–40.

Bradford, J. 1957. *Ancient Landscapes: Studies in Field Archaeology*. London: Bell.

Bradley, R. 1997. To See is to have Seen: Craft Traditions in British Field Archaeology. In: Molyneaux, B.L. ed., 1997. *The Cultural Life of Images: Visual Representation in Archaeology.* London: Routledge, pp. 62–72.

Bradley, R. 2003. Seeing Things: Perception, Experience and the Constraints of Excavation, *Journal of Social Archaeology*, 3(2), pp. 151–168.

Brass, M. 2009. Towards and Archaeology of Social Organisation at Jebel Moya, 5th-1st Millennium BC, *Sudan and Nubia*, 13, pp.120-125.

Brass, M., and Schwenniger, J.L. 2013. Jebel Moya (Sudan): New Dates from a Mortuary Complex at the Southern Meroitic Frontier, *Azania: Archaeological Research in Africa*, 48(4), pp. 455–472.

Brass, M. et al., 2018. Jebel Moya: New Excavations at the Largest Pastoral Burial Cemetery in Sub-Saharan Africa, *Antiquity*, 92(356), pp.1-6.

Brentnall, H.C. 1910. *The Marlborough Country: Notes Geographical and Historical on Sheet 266 of the One-inch Ordnance Survey map*. Marlborough: Printed at the 'Times' Office.

Bridge, M. 2021. Netflix Drama 'The Dig' unfair on Sutton Hoo Archaeologist Peggy Piggott. *The Times*. 29 January 2021. [Online]. Available at: https://www.thetimes.co.uk/article/netflix-drama-fails-to-dig-out-the-ancient-truth-of-sutton-hoo-728srdndr (Accessed: 30 July 2021).

British Museum, The. 1929. *How to Observe in Archaeology; Suggestions for Travellers in the Near and Middle East*. London: Trustees of the British Museum.

Brophy, K. 2005. Subjectivity, Bias and Perception in Aerial Archaeology. In: Brophy, K. and Cowley, D. eds., 2005. *From the Air: Understanding Aerial Archaeology.* Stroud: Tempus, pp. 33–49.

Brophy, K., and Cowley, D. eds., 2005. *From the Air: Understanding Aerial Archaeology*. Stroud: Tempus.

Brown, A. 2017. *Pictures Bring Us Messages: Sinaakssiiksi Aohtsimaahpihkookiyaawa: Photographs and Histories from the Kainai Nation*. Toronto: University of Toronto Press.

Brown, A. 2019. [Twitter Post]. 9 March 2019. Available at: https://twitter.com/CollardStudies/status/1104405684924411905 (Accessed: 15 March 2019).

Brown, B. 1938. [Diary Entry 2 July 1938]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.145.

Brown, B. 1939a. [Diary Entry 9 May 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.156.

Brown, B. 1939b. [Diary Entry 11 May 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.156.

Brown, B. 1939c. [Diary Entry 22 May 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.158.

Brown, B. 1939d. [Diary Entry 6 June 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.160.

Brown, B. 1939e. [Diary Entry 9 June 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.161.

Brown, B. 1939f. [Diary Entry 8 July 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.167.

Brown, B. 1939g. [Diary Entry 10 July 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.167.

Brown, B.1939h. [Diary Entry 18 May 1939]. Transcribed in: Bruce Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* London: Victor Gollancz Ltd. pp.157.

Brown, M.G. 2017. *Khartoum at Night: Fashion and Body Politics in Imperial Sudan*. Stanford: Stanford University Press.

Bruce-Mitford, R. 1949. *The Sutton Hoo Ship-Burial: Recent Theories and Some Comments on General Interpretation*. Ipswich: Suffolk Institute of Archaeology.

Bruce-Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and Other Discoveries.* Victor Gollancz Ltd: London.

Bruce-Mitford, R. 1975. *The Sutton Hoo Ship Burial Volume I.* London: British Museum Publications Group.

Bruce-Mitford, R. 1979. *The Sutton Hoo Ship Burial: Reflections After Thirty Years*. York: The Ebor Press.

Bruce-Mitford, R. 2004. Forty Years with Sutton Hoo. In: Carver, M. 2004. *Field Report: Fieldwork Before 1983,* 2(3.6) [Online]. Available at: http://archaeologydataservice.ac.uk/archives/view/suttonhoo_var_2004/fr_vol02.cfm?CFID=000e8302-dfb3-4fce-9623-b1dedcecd27b&CFTOKEN=0 (Accessed 23/02/2018).

Brusius, M. 2016. Photography's Fits and Starts: The Search for Antiquity and its Image in Victorian Britain, *History of Photography*, 40(3), pp. 250–266.

Brusius, M. 2017. Hitting Two Birds with One Stone: An Afterword on Archaeology and the History of Science, *History of Science*, 55(3), pp. 383–391.

Brusius, M., et al., 2013. *William Henry Fox Talbot: Beyond Photography*. London: The Paul Mellon Centre for Studies in British Art.

Brusius, M., and Ovenden, R. 2018. Richard Ovenden, Bodley's Librarian, In Conversation with Mirjam Brusius. In: Brusius, M. and Singh, K. eds., 2018. *Museum Storage and Meaning: Tales from the Crypt.* London: Routledge, pp.83-89.

Brusius, M., and Singh, K., eds., 2018. *Museum Storage and Meaning: Tales from the Crypt.* London: Routledge.

Brusius, M., and Singh, K. 2018. Introduction. In: Brusius, M. and Singh, K. eds., 2018. *Museum Storage and Meaning: Tales from the Crypt.* London: Routledge. pp.1-34.

Buchli, V. 2001. *Archaeologies of the Contemporary Past*. London: Routledge.

Buckley, L. 2005. Objects of Love and Decay: Colonial Photographs in a Postcolonial Archive, *Cultural Anthropology,* 20, pp.249-70.

Budge, E.A.W. 1905. *Cook's Handbook for Egypt and the Sudan*. London: Thomas Cook and Son.

Budge, E.A.W. 1910. *The Nile: Notes for Travellers in Egypt and in the Egyptian Sudan*. [11th ed]. London: Thomas Cook and Son.

Buell, R.R. 2019. Decanonizing Anthropology [Project Website]. Available at: https://footnotesblog.com/2019/02/15/decanonizing-anthropology/ (Accessed: 15 February 2019).

Bull, L. and Albright, W.F. 1942. George Andrew Reisner, 1867-1942, *Bulletin of the American Schools of Oriental Research*, (87), pp. 8–10.

Burckhardt, J.L. 1819. *Travels in Nubia*. England: John Murray.

Burne, C. 1917. Old Track from Walbury Camp to Tidbury Ring, *Proceedings of the Hampshire Field Club*, 8(1), pp. 104–106.

Burns, K. 1997. Topographies of Tourism: Documentary Photography and The Stones of Venice, *Assemblage*, (32), pp. 23–44.

Byrne, A. 2013. *Geographies of the Romantic North: Science, Antiquarianism, and Travel, 1790-1830*. New York: Palgrave Macmillan.

C—,V—.R—.L—. 1950. Jebel Moya: The Wellcome Excavations in the Sudan by Addison, F., *The South African Archaeological Bulletin*, 5(19), p. 121.

Cailliaud, F., and Bednarski, A. 2013. *The Lost Manuscript of Frederic Cailliaud: Arts and Crafts of the Ancient Egyptians, Nubians, and Ethiopians*. Cairo: American University in Cairo Press.

Callaci, E. 2020. On Acknowledgments, *The American Historical Review*, 125(1), pp. 126–131.

Campbell, C. 2014. *Agitating Images: Photography Against History in Indigenous Siberia*. London: University of Minnesota Press.

Caneva, I. 1991. Jebel Moya Revisited: A Settlement of the 5th Millennium BC in the Middle Nile Basin, *Antiquity*, 65(247), pp.262-268.

Carabott, P., Hamilakis, Y., and Papargyriou, E. 2015. *Camera Graeca: Photographs, Narratives, Materialities*. Farnham: Ashgate.

Care-Evans, A.C. 1986. *The Sutton Hoo Ship Burial*. London: British Museum Press.

Care-Evans, A.C. 1994. *The Sutton Hoo Ship Burial* [2nd Ed]. London: British Museum Press.

Carr, L.C. 2012. *Tessa Verney Wheeler: Women and Archaeology Before World War Two*. Oxford: Oxford University Press.

Carruthers, W. 2019. Credibility, Civility, and the Archaeological Dig House in mid-1950's Egypt, *Journal of Social Archaeology*, 19(2), pp.255-276.

Carsten, J., Day, S., and Stafford, C. 2018. Introduction: Reason and Passion: The Parallel Worlds of Ethnography and Biography, *Social Anthropology*, 26(1), pp. pp5-14.

Carter, C. 2015. The Development of the Scientific Aesthetic in Archaeological Site Photography? *Bulletin of the History of Archaeology*, 25(2), pp. 1-10.

Carter, R.G.S. 2006. Of Things Said and Unsaid: Power, Archival Silences, and Power in Silence, *Archivaria*, 61(0), pp. 215–233.

Cartier-Bresson, H. 2014. *The Decisive Moment*. Göttingen: Steidl.

Cartwright, L., and Wolfson, E. 2018. Introduction: Affect at the Limits of Photography, *Journal of Visual Culture*, 17(2), pp.141-151.

Carver, G. 2011. Reflections on the Archaeology of Archaeological Excavation, *Archaeological Dialogues*, 18(1), pp. 18–26.

Carver, M. 1989. Digging for Ideas, *Antiquity*, 63(241), pp.666–674.

Carver, M. 2011. Sutton Hoo: An Archaeography. In: Schofield, J. ed. 2011. *Great Excavations: Shaping the Archaeological Profession*. Oxford: Oxbow Books, pp.25-43.

Carver, M. 2017. *The Sutton Hoo Story: Encounters with Early England.* Woodbridge: The Boydell Press.

Carville, J. 2018. 'This postcard album will tell my name, when I am quite forgotten': Cultural Memory and First World War Soldier Photograph Albums, *Modernist Cultures*, 13(3), pp. 417–444.

Caton Thompson, G. 1950. Archaeology at Jebel Moya, Sudan, *Nature*, 165(4186), pp. 87–88.

Cave, C.J.P. 1914. Upper Air Research, *Quarterly Journal of the Royal Meteorological Society*, 40(170), pp. 97–110.

Cave, C.J.P. 1917. The Forms of Clouds, *Quarterly Journal of the Royal Meteorological Society*, 43(181), pp. 61–89.

Cave, C.J.P. 1922. Some Notes on Meteorology in War Time, *Quarterly Journal of the Royal Meteorological Society*, 48(201), pp. 7–10.

Cave, C.J.P. 1926. *Clouds and Weather Phenomena for Artists and Other Lovers of Nature.* Cambridge: Cambridge University Press.

Cave, C.J.P. 1944. Obituary, *Quarterly Journal of the Royal Meteorological Society*, 70(303), pp. 91–95.

Çelik, Z. 2016. *About Antiquities: Politics of Archaeology in the Ottoman Empire*. Austin: University of Texas Press.

Ceram, C.W. 1954. *Gods, Graves and Scholars*. London: Victor Gollancz.

Chadha, A. 2002. Visions of Discipline: Sir Mortimer Wheeler and the Archaeological Method in India (1944-1948), *Journal of Social Archaeology*, 2(3), pp. 378–401.

Chadwick, A.M. 2016. Foot-fall and Hoof-hit. Agencies, Movements, Materialities, and Identities: Later Prehistoric and Romano-British Trackways, *Cambridge Archaeological Journal*, 26(1), pp. 93–120.

Chakrabarty, D. 1992. Postcoloniality and the Artifice of History: Who Speaks for "Indian" Pasts? *Representations*, (37), pp. 1–26.

Challis, D. 2014. *The Archaeology of Race: The Eugenic Ideas of Francis Galton and Flinders Petrie*. London: Bloomsbury.

Challis, D. 2016. Skull Triangles: Flinders Petrie, Race Theory and Biometrics, *Bulletin of the History of Archaeology*, 26(1), pp.1-8.

Challis, D. 2019. Seeing Race in Biblical Egypt: Edwin Longsden Long's Anno Domini (1883) and A. H. Sayce's The Races of the Old Testament (1891), *Papers from the Institute of Archaeology*, 28(1), pp.1-22.

Charity, R. 1995. *The Impossible Science of Being: Dialogues Between Anthropology and Photography*. London: The Royal Anthropological Institute.

Charlesworth, M. 2010. Photography, the Index, and the Non-existent: Alfred Watkins' Discovery (or Invention) of the Notorious Ley-lines of British Archaeology, *Visual Resources: Seeing and/or Believing the Photograph,* 26(2), pp. 131–145.

Chaudhary, Z.R. 2012. *Afterimage of Empire: Photography in Nineteenth-Century India*. Minneapolis: University of Minnesota Press.

Chielens, P. 2009. The Last Witness. Military Aerial Photography used in a Modern Museum Context. In: Bourgeois, J. and Stichelbaut, B. eds., 2009. *Images of Conflict: Military Aerial Photography and Archaeology*. Newcastle: Cambridge Scholars Publisher, pp. 13–26.

Childe, V.G. 1935. Changing Methods and Aims in Prehistory. Presidential Address for 1935. *Proceedings of the Prehistoric Society*. London: H.K. Lewis & Co. pp.1-15.

Chippindale, C., and Daniel, G. 1989. *The Pastmasters: Eleven Modern Pioneers of Archaeology*. London: Thames and Hudson.

Chitty, H. 1921. Hampshire Perambulations, *Proceedings of the Hampshire Field Club*, 9(1), pp. 262–278.

Clapinson, M. 1978. *Catalogue of the Papers of O.G.S. Crawford 1886-1957.* Oxford: Bodleian Library

Clapinson, M. 2015. *A Brief History of the Bodleian Library*. Oxford: Bodleian Library.

Clark, P. 2007. Obituary: Peter Shinnie. *The Guardian*. 30 October 2007. [Online]. Available at: https://www.theguardian.com/news/2007/oct/30/guardianobituaries.obituaries (Accessed: 6 September 2019).

Clarke, A. 2010. New Sutton Hoo Photographs Unearthed. *East Anglian Daily Times*. 23 October 2010. Available at: https://www.eadt.co.uk/ea-life/new-sutton-hoo-photographs-unearthed-1-734070 (Accessed: 7 April 2019).

Classen, C. 1993. *Worlds of Sense: Exploring the Senses in History and Across Cultures*. London: Routledge.

Classen, C. 2005. Touch in the Museum. In: Classen, C. ed., 2005. *The Book of Touch*. Oxford: Berg, pp. 275–86.

Classen, C., and Beaudry, M.C. 1992. *Exploring Gender through Archaeology: Selected Papers from the 1991 Boone Conference.* Madison, Wisconsin: Prehistory Press.

Classen, C., and Howes, D. 2006. The Museum as a Sensescape: Western Sensibilities and Indigenous Artifacts. In: Edwards, E., Gosden, C. and Phillips, R. 2006. *Sensible Objects: Colonialism, Museums and Material Culture.* Oxford: Berg, pp. 199–222.

Clay, R.C.C. 1927. Some Prehistoric Ways, *Antiquity*, 1(1), pp.54-65.

Clayton, O. 2017. Flirting with Photography: Henry James and Photographic Exchange, *History of Photography*, 41(4), pp. pp329-342.

Clifford, J. 1997. *Routes: Travel and Translation in the Late Twentieth Century*. London: Harvard University Press.

Clifford, J., and Marcus, G.E. 1986. *Writing Culture: The Poetics and Politics of Ethnography.* London: University of California Press.

Coelho, R.G. 2019. An Archaeology of Decolonization: Imperial Intimacies in Contemporary Lisbon. *Journal of Social Archaeology*, 19(2), pp. 181–205.

Cohen, G.M. and Joukowsky, M. 2004. *Breaking Ground: Pioneering Women Archaeologists*. Ann Arbor: University of Michigan Press

Cole, T. 2019. When the Camera Was a Weapon of Imperialism. (And When It Still Is). *The New York Times*. 06 February 2019. Available at: https://www.nytimes.com/2019/02/06/magazine/when-the-camera-was-a-weapon-of-imperialism-and-when-it-still-is.html (Accessed: 15 February 2019).

Colla, E. 2007. *Conflicted Antiquities: Egyptology, Egyptomania, Egyptian Modernity.* Durham: Duke University Press.

Collis, J.M. 2001. *Digging up the Past: An Introduction to Archaeological Excavation*. Stroud, Gloucestershire: Sutton.

Colvile, H.E. 1889. *History of the Sudan Campaign.* London: HM Stationery office, Intelligence Division.

Conkey, M.W., and Gero, J.M. 1991. *Engendering Archaeology: Women and Prehistory*. Oxford: Blackwell.

Conlon, V.M. 1973. *Camera Techniques in Archaeology*. London: John Baker Limited.

Cook, K. 2019. EmboDIYing Disruption: Queer, Feminist and Inclusive Digital Archaeologies, *European Journal of Archaeology*, 22(3), pp. 1–17.

Cook, T. 2011. The Archive(s) is a Foreign Country: Historians, Archivists, and the Changing Archival Landscape, *American Archivist*, 74(2), pp. 600–632.

Cook, T., and Schwartz, J. 2002. Archives, Records, and Power: From (Postmodern) Theory to (Archival) Performance, *Archival Science*, 2(3), pp. 171–185.

Cookson, M.B. 1954. *Photography for Archaeologists.* London: Max Parrish.

Coote, J. 2014. Archaeology, Anthropology, and Museums, 1851–2014: Rethinking Pitt-Rivers and His Legacy – An Introduction, *Museum History Journal*, 7(2), pp.126–134.

Corkill, N.L. 1945. Cretan Parallels in the Nuba Mountains, *Sudan Notes and Records*, *26*(1), pp. 167–170.

Cosgrove, D.E., and Fox, W.L. 2010. *Photography and Flight.* London: Reaktion.

Coupaye, L. 2013. *Growing Artefacts, Displaying Relationships: Yams, Art and Technology Amongst the Nyamikum Abelam of Papua New Guinea*. Oxford: Berghahn.

Cowell, F.R. 1975. *The Athenaeum: Club and Social life in London, 1824-1974*. London: Heinemann.

Cowley, D., and Gilmour, S. 2005. Some Observations on the Nature of Aerial Survey. In: Brophy, K. and Cowley, D., eds., 2005. *From the Air: Understanding Aerial Archaeology.* Stroud: Tempus, pp. 50–63.

Cox, R.H. 1914. *The Green Roads of England.* London: Methuen.

Crawford, O.G.S. 1915. The Kingsclere Skeleton, *Proceedings of the Hampshire Field Club*, VII(2), pp. 61–63.

Crawford, O.G.S. 1921. *Man and His Past.* London: Milford.

Crawford, O.G.S. 1922a. *The Andover District; An Account of Sheet 283 of the One-Inch Ordnance Map (Small sheet series)*. Oxford: Clarendon Press.

Crawford, O.G.S. 1922b. Excavations at Rancome, *Proceedings of the Hampshire Field Club and Archaeological Society*, 9(2), pp. 210–213.

Crawford, O.G.S. 1922c. Excavations at Roundwood during 1920, *Proceedings of the Hampshire Field Club and Archaeological Society*, 9(2), pp. 189–206.

Crawford, O. G. S. 1922d. Hangman's Stones, *Notes and Queries*, s12-XI(222), pp. 50–52.

Crawford, O.G.S. 1922e. *Notes on Archaeological Information Incorporated in the Ordnance Survey Maps. Part I, The Long Barrows & Stone Circles in the Area Covered by Sheet 8 of the 1/4 Inch Map (The Cotswolds & the Welsh marches): Ordnance Survey Professional Papers New Series no. 6*. London: HMSO.

Crawford, O.G.S. 1923. Air Survey and Archaeology, *The Geographical Journal,* 61(5), pp.342-360.

Crawford, O.G.S. 1924. *Air Survey and Archaeology*: *Ordnance Survey Professional Papers New Series no. 7*. London: HMSO.

Crawford, O.G.S. 1925. Place Names and Archaeology. In: Mawer, A. and Stenton, F.M. 1925. *Introduction to the Survey of English Place Names*. Cambridge: English Place Name Society, pp. 143–164.

Crawford, O.G.S. 1926. Archaeology and the Ordnance Survey, *The Geographical Journal*, 67(1), pp.66-68.

Crawford, O.G.S. 1927a. Air-Photographs near Dorchester, Oxon, *Antiquity, 1(4), pp*.469-474.

Crawford, O.G.S. 1927b. L'Affaire Glozel, *Antiquity*, 1(2), pp.181-188.

Crawford, O.G.S. 1928a. Editorial Notes, *Antiquity*, 2(5), pp. 1–6.

Crawford, O.G.S. 1928b. Editorial Notes, *Antiquity*, 2(7), pp. 257–260.

Crawford, O.G.S. 1929. *Air Photography for Archaeologists: Ordnance Survey Professional Papers; New Series. no. 12*. London: HMSO.

Crawford, O.G. S. 1929b. Air Photographs of the Middle East, *The Geographical Journal*, 73(6), pp. 497-509.

Crawford, O. G. S. 1929c. Durrington Walls, *Antiquity,* 3(9), pp.49-59.

Crawford, O. G. S. 1929d. The Giant of Cerne and other Hill-Figures, *Antiquity*, 3(11), pp.277-282.

Crawford, O.G.S. 1930. Editorial Notes, *Antiquity*, 4(15), pp. 273–278.

Crawford, O.G.S. 1931. Historical Cycles, *Antiquity*, 5(17), pp.5-20.

Crawford, O.G.S. 1932. Museums Old and New: Some Personal Impressions, *Antiquity*, 6(21), pp.60-70.

Crawford, O.G.S. 1933. Some Recent Air Discoveries, *Antiquity*, 7(27), pp. 290–296.

Crawford, O. G. S. 1936a. The Work of Giants, *Antiquity*, 10(38), pp. 162–174.

Crawford, O. G. S. 1936b. 'Through the Wilderness' by H. J. Massingham. Cobden-Sanderson, 1935. pp. 316, illus. 15s, *Antiquity*, 10(37), pp. 118–119.

Crawford, O. G. S. 1936c. Archaeological Photography, *Antiquity,* 10(39), pp.351-352.

Crawford, O. G. S. 1936d. Archaeological Photography, *Antiquity,* 10(40), pp.486-490.

Crawford, O.G.S. 1937. Editorial Notes. *Antiquity*, 11(44), pp. 385–388.

Crawford, O.G.S. 1938. *Luftbild und Vorgeschichte*. Berlin: Hansa Luftbild GmbH.

Crawford, O.G.S. 1938a. Editorial Notes, *Antiquity*, 12(45), pp. 1–4.

Crawford, O.G.S. 1938b. Editorial Notes, *Antiquity*, 12(47), pp. 257–260.

Crawford, O.G.S. 1938c. Hertfordshire Place Names, *Antiquity*, 12(48), pp. 432–436.

Crawford, O.G.S. 1938d. Notes and News, *Antiquity*, 12(48), pp. 478–479.

Crawford, O.G.S. 1938e. Oxoniensia, *Antiquity*, 12(45), pp. 113–115.

Crawford, O.G.S. 1938f. Crop-Mark at Portchester Castle, *Antiquity*, 12(48), pp. 478–479.

Crawford, O. G. S. 1938g. The Kish Goat, Bulgaria, *Antiquity*, 12(45), pp. 81–82.

Crawford, O.G.S. 1939a. Editorial Notes, *Antiquity*, 13(51), pp. 257-260.

Crawford, O.G.S. 1939b. Editorial Notes, *Antiquity*, 13(52), pp. 385-388.

Crawford, O.G.S. 1939c. Air Reconnaissance of Roman Scotland, *Antiquity*, 13(51), pp. 280–292.

Crawford, O.G.S. 1940. Editorial Notes, *Antiquity*, 14(53), pp.1-5.

Crawford, O.G.S. 1941. Notes and News, *Antiquity*, 15(57), pp. 81–89.

Crawford, O.G.S. 1945. Tagia Umm Gerein, *Sudan Notes and Records,* 26(2), pp.333-334.

Crawford, O.G.S. 1945b. Lul, *Sudan Notes and Records,* 26(2), pp.335-336.

Crawford, O. G. S., 1948a. People without a History, *Antiquity*, 22(85), pp.8–12.

Crawford, O.G.S. 1948. *A Short History of Nursling*. Winchester: Warren & Son.

Crawford, O.G.S. 1949. *Topography of Roman Scotland North of the Antonine Wall.* Cambridge: Cambridge University Press.

Crawford, O.G.S. 1949b. Some Medieval Theories about the Nile*, The Geographical Journal*, 114(1/3), pp.6–23.

Crawford, O.G.S. 1950a. Editorial Notes, *Antiquity*, 24(94), pp. 57–60.

Crawford, O.G.S. 1950b. Notes and News, *Antiquity,* 24(96), pp.202-206.

Crawford, O.G.S. 1950c. 'Jebel Moya' by Frank Addison, FSA. The Wellcome Excavations in the Sudan, Vols. I (text) and II (plates), published for the Trustees by the Oxford University Press, 1949. Price £6 6s, *Antiquity*, 24(96), pp.207-208.

Crawford, O. G. S. 1950d. Some Medieval Theories about the Nile, *The Geographical Journal*, 116(1/3), pp.123–124.

Crawford, O. G. S. 1950e. The Strange Adventures of Zaga Christ, *Sudan Notes and Records*, *31*(2), pp. 287–296.

Crawford, O.G.S. 1951a. *The Fung Kingdom of Sennar: With a Geographical Account of the Middle Nile Region*. Gloucester: J. Bellows.

Crawford, O.G.S. 1951b. Editorial Notes, *Antiquity*, 25(100), pp. 169–170.

Crawford, O.G.S. 1951c. Editorial Notes, *Antiquity*, 25(97), pp.1-3

Crawford, O.G.S. 1952a. Editorial Notes, *Antiquity*, 26(101), pp. 1–3.

Crawford, O.G.S. 1952b. Editorial Notes, *Antiquity*, 26(102), pp. 57-59.

Crawford, O.G.S. 1953. *Archaeology in the Field*. London: Phoenix House.

Crawford, O.G.S. 1953b. *Castles and Churches in the Middle Nile Region.* Khartoum: Sudan Antiquities Service Occasional Papers.

Crawford. O.G.S. 1954. The Symbols Carved on Stonehenge, *Antiquity*, 28(109), pp.25-31.

Crawford, OGS. 1955. *Said and Done: The Autobiography of an Archaeologist.* London: Weidenfeld and Nicolson.

Crawford, O.G.S. 1955b. The Ashraf of the Sudan, *Sudan Notes and Records*, 36(2), pp.180-182.

Crawford, O.G.S. 1955c. The Habab Tribe. *Sudan Notes and Records*, 36(2), pp. 183–187.

Crawford, OGS. 1956. Last Will and Testament. Dated 20 August 1956. Photocopy available in the "Crawford Box" at the Institute of Archaeology, Oxford.

Crawford, O.G.S. 1957. *The Eye Goddess.* London: Phoenix House.

Crawford, O.G.S., Ellaway, J.R., and Willis, G.W. 1922. The Antiquity of Man in Hampshire, *Proceedings of the Hampshire Field Club*, 9(2), pp. 173–188.

Crawford, O.G.S., and Keiller, A. 1928. *Wessex From the Air.* Oxford: Clarendon Press.

Crawford, O.G.S., and Addison, F. 1951. *Abu Geili, Saqadi and Dar el-Mek*. Oxford: Printed on behalf of The Trustees of the late Sir Henry Wellcome by Oxford University Press.

Crawford, T.S. 2012. *Wiltshire and the Great War: Training the Empire's Soldiers*. Ramsbury: Crowood.

Crewe, M. 2000a. The Army and Meteorology — Other Gas and Gaiters: Part 1, *Weather*, 55(11), pp. 420–423.

Crewe, M. 2000b. The Army and Meteorology — Other Gas and Gaiters: Part 2, *Weather*, 55(12), pp. 447–452.

Crewe, M. 2002. *Meteorology and Aerial Navigation*, *Occasional Papers on Meteorological History No.4.* Reading: The Royal Meteorological Society.

Crewe, M. 2009. *The MET Office Grows Up Occasional Papers on Meteorological History. No.8.* Reading: The Royal Meteorological Society.

Croft, B.L. 2004. Laying Ghosts to Rest. In: Hight, E.M and Sampson, G.D. eds. 2004. *Colonialist Photography: Imag(in)ing Race and Place.* New York: Routledge, pp. 20–29.

Crowfoot, J.W. 1943. George Reisner: An Impression, *Antiquity*, 17(67), pp. 122–128.

Crumley, C. 2017. Assembling Conceptual Tools to Examine the Moral and Political Structures of the Past, Anarchy and Archaeology [Special Issue], *The SAA Archaeological Record*, 17(1), pp. 22-25.

Cunliffe, B. 2002. Antiquity and Britain, Antiquity, 76(294), pp. 1112–1115.

Cunliffe, B. 2008. Continuity and Change in a Wessex Landscape, *Proceedings of the British Academy,* 162, pp.161-210

Dahó, M. 2019. Landscape and the Geographical Turn in Photographic Practice, *Photographies*, 12(2), pp. 227–248.

Dalal-Clayton, A. and Rutherford, A. [N.D]. Against a New Orthodoxy: Decolonised 'Objectivity' in the Cataloguing and Description of Artworks [Blog]. *Paul Mellon Centre.* Available at: https://photoarchive.paul-mellon-centre.ac.uk/groups/against-a-new-orthodoxy (Accessed 16 April 2022).

Daly, M.W., and Hogan, J. 2005. *Images of Empire: Photographic Sources for the British in the Sudan*. Leiden: Brill.

Daniel, G. 1953. Archaeology in the Field: Review. *The Listener*. March 26 1953. [Newspaper clipping]. MWA/6/1. British Academy Archives.

Daniel, G. 1967. *The Origins and Growth of Archaeology*. Middlesex: Penguin Books.

Daniel, G. 1985. Editorial Notes, *Antiquity*, 59(227), pp.161-166.

Daniels, S. 2006. Lines of Sight: Alfred Watkins, Photography and Topography in Early Twentieth-Century Britain, *Tate Papers*, 6, pp.1-14.

Darvill, T. 2002. 'It's Better to Dig than Dance': Archaeological Method and Theory in *Antiquity* 1927 – 2002, *Antiquity*, 76(294), pp.1094–1101.

Darvill, T. 2021. Structured Deposition. In: Darvill, T. ed., 2021. *The Concise Oxford Dictionary of Archaeology* [3rd Ed.]. Oxford: Oxford University Press. Available at: https://ezproxy-prd.bodleian.ox.ac.uk:2460/view/10.1093/acref/9780191842788.001.0001/acref-9780191842788-e-4073 (Accessed: 30 December 2021).

Darwall-Smith, R. and Riordan, M. 2009. Archives for Administrators or Archives for Antiquarians? A History of Archive Cataloguing in Four Oxford Colleges, *Journal of the Society of Archivists*, 30(1), pp. 93–115.

Das, S. 2017. Bricks + Mortals [Project Website]. Available at: https://www.ucl.ac.uk/culture/projects/bricks-mortals (Accessed: 15 February 2019).

Das, S. and Lowe, M. 2018. Nature Read in Black and White: Decolonial Approaches to Interpreting Natural History Collections, *Journal of Natural Science Collections*, 6, pp. 4–14.

Daston, L. and Galison, P. 2010. *Objectivity*. New York: Zone Books.

David, N. 2008. Obituary: Peter Lewis Shinnie 1915-2007, *The African Archaeological Review*, 25(1-2), pp.125–129.

Davies, S. and Whitehead, N.L. 2012. From Maps to Mummy-Curses: Rethinking Encounters, Ethnography and Ethnology, *History and Anthropology*, 23(2), pp. 173–182.

Davis, W. 2011. *Into the Silence: The Great War, Mallory and the Conquest of Everest*. London: Bodley Head.

De Landa, M. 2006. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London: Continuum.

Deakin, R. 2007. *Wildwood: A Journey Through Trees*. London: Hamish Hamilton.

Delbourgo, J. 2018. Performances of Museum Storage. In: Brusius, M., and Singh, K. eds., 2018. *Museum Storage and Meaning: Tales From the Crypt.* London: Routledge, pp.37-54.

Deleuze, G. and Guattari, F. 2021 [1988]. *A Thousand Plateaus.* London: Bloomsbury.

Dell, S. 2018. The Work of Photography Reimagined: The Soviet Moment in France, 1928–34, *History of Photography*, 42(4), pp. 356–375.

Demou, V. 2017. *The Present of the Past at a Time of No Future: A Synergistic Art Archaeology of the Athenian Acropolis*. PhD Thesis. University of Southampton: Southampton.

Der Manuelian, P. and Reisner, G.A. 1992. George Andrew Reisner on Archaeological Photography, *Journal of the American Research Center in Egypt*, 29, pp. 1–34.

Derrida, J. 1996. *Archive Fever: A Freudian Impression*. London: University of Chicago Press.

Deslandes, P.R. 2005. *Oxbridge Men: British Masculinity and the Undergraduate Experience, 1850-1920*. Bloomington: Indiana University Press.

Deuel, L. 1969. *Flights into Yesterday: The Story of Aerial Archaeology*. New York: St Martin's Press.

Dever, N. 2004. They Also Dug! Archaeologist's Wives and Their Stories, *Near Eastern Archaeology*, 67(3), pp. 162–173.

Díaz-Andreu, M. 2020. *A History of Archaeological Tourism: Pursuing Leisure and Knowledge from the Eighteenth Century to World War II*. Cham: Springer.

Díaz-Andreu. M., and Sørenson, M.L.S. 1998. *Excavating Women: A History of Women in European Archaeology*. London: Routledge.

Díaz-Andreu, M., Price, M., and Gosden, C. 2009. Christopher Hawkes: His Archive and Networks in British and European Archaeology, *Antiquaries Journal*, 89, pp. 405–426.

Dirks, N.B. 2002. Annals of the Archive: Ethnographic Notes on the Sources of History. In: Axel, B.K. ed., 2002. *From the Margins: Historical Anthropology and its Futures*. Durham: Duke University Press, pp.47-65.

Doherty, C. 2018. Home Storage: The Treatments of Domestic Collections of Aeronautica by the Science Museum and the National Air and Space Museum. In: Brusius, M., and Singh, K. eds., 2018. *Museum Storage and Meaning: Tales from the Crypt.* London: Routledge, pp.140-151.

Dominici, S. 2018. *Travel Marketing and Popular Photography in Britain, 1888-1939: Reading the Travel Image.* London: Routledge.

Dominici, S. 2019. New Mobile Experiences of Vision and Modern Subjectivities in Late Victorian Britain, *Science Museum Group Journal*, 12(12). [Online]. Available at: http://journal.sciencemuseum.ac.uk/browse/issue-12/new-mobile-experiences-of-vision/ (Accessed 12 December 2021).

Dorrell, P.G. 1989 [1986]. *Photography in Archaeology and Conservation*. Cambridge: Cambridge University Press.

Douglas, C.K.M. 1916. Weather Observation from an Aeroplane, *Journal of the Scottish Meteorological Society,* 17(33), pp.65-73.

Douglas, C.K.M. 1917. Weather Observation from an Aeroplane, *Journal of the Royal Meteorological Society*, 43(182), pp. 227–229.

Douglas, M. 1966. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. London: Routledge.

Doyle, A.C. 1898. The Tragedy of the Korosko. London: Smith, Elder and Co.

Drabinski, E. 2013. Queering the Catalog: Queer Theory and the Politics of Correction, *The Library Quarterly*, 83(2), pp.94–111.

Drewett, P. 2011. *Field Archaeology: An Introduction* [2nd ed]. Abingdon, Oxon: Routledge.

Driver, F. 2001. *Geography Militant: Cultures of Exploration and Empire*. Oxford: Blackwell Publishers.

Drzewiecki, M., Maliński, P., and Rączkowski, W. 2008. Fortresses of Sudan: Following O.G.S. Crawford [Unpublished Preliminary Report]. Available at: https://www.academia.edu/1963229/Fortresses_of_Sudan_2008 (Accessed 21 October 2017).

Drower, M.S. 1995. *Flinders Petrie: A Life in Archaeology*. Madison: University of Wisconsin Press.

Dubow, J. 2000. 'From A View on The World To A Point Of View In It': Rethinking Sight, Space and the Colonial Subject, *Interventions*, 2(1), pp. 87–102.

Duchein, M. 1992. The History of European Archives and the Development of the European Archival Profession, *American Archivist*, 55(1), pp. 14–25.

Dudley, S. ed., 2010. *Museum Materialities: Objects, Engagements, Interpretations.* London: Routledge.

Dumbreck, R. 2004. Note on Basil Brown. In: Carver, M. 2004. *Field Report: Fieldwork Before 1983 Vol 2.* Section 3.4. [Online]. Available at: http://archaeologydataservice.ac.uk/archives/view/suttonhoo_var_2004/fr_vol02.cfm?CFID=000e8302-dfb3-4fce-9623-b1dedcecd27b&CFTOKEN=0 [Accessed 23/02/2018].

Duncan, C. 1995. *Civilizing Rituals: Inside Public Art Museums.* London: Routledge.

Duncan, J.S., and Gregory, D. 1999. *Writes of passage: Reading Travel Writing*. London: Routledge.

Dunley, R. and Pugh, J. 2021. Do Archive Catalogues Make History?: Exploring Interactions between Historians and Archives, *20th Century British History*, 32(4), pp. 581–607.

Durrant, C. 2004. *Basil Brown: Astronomer, Archaeologist, Enigma.* London: National Trust.

E—G—B. 1926. Clouds and Weather Phenomena for Artists and Other Lovers of Nature. By C. J. P. Cave. Cambridge University Press, 1926, 8vo. Pp. x+31, pls. 23. 5/- net', *Quarterly Journal of the Royal Meteorological Society*, 52(219), pp. 346–347.

Edmonds, M.R. 1999. *Ancestral Geographies of the Neolithic: Landscapes, Monuments and Memory*. London: Routledge.

Edwards, A. 1877. *A Thousand Miles up the Nile.* England: Longmans Green.

Edwards, D.N. 2004. *The Nubian Past: An Archaeology of the Sudan*. London: Routledge.

Edwards, E. 1990. Photographic 'Types': The pursuit of Method, *Visual Anthropology*, 3(2–3), pp. 235–258.

Edwards, E. ed., 1992. *Anthropology and Photography 1860-1920.* New Haven, CT: Yale University Press in association with the Royal Anthropological Institute.

Edwards, E. 1999. Photographs as Objects of Memory. In: Kwint, M., Breward, C., and Aynsley, J. eds., *Material Memories: Design and Evocation*. Oxford: Berg, pp. 221–236.

Edwards, E. 2001. *Raw Histories: Photography, Anthropology, and Museums.* Oxford: Berg.

Edwards, E. 2002. Material Beings: Objecthood and Ethnographic Photographs, *Visual Studies*, 17(1) pp.67-74.

Edwards, E. 2006. Photographs and the Sound of History, *Visual Anthropology Review*, 21(112), pp.27-46.

Edwards, E. 2008. Straightforward and Ordered: Amateur Photographic Surveys and Scientific Aspiration, 1885-1914, *Photography and Culture*, 1(2), pp. 185–209.

Edwards, E. 2008b. Thinking Photography Beyond the Visual? In: Long, J., Noble, A. and Welch, E. eds., 2008. *Photography: Theoretical Snapshot.* London: Routledge, pp. 31–48.

Edwards, E. 2009. Unblushing Realism and the Threat of the Pictorial: Photographic Survey and the Production of Evidence 1885–1918, *History of Photography*, 33(1), pp. 3–17.

Edwards, E. 2010. Photographs and History: Emotion and Materiality. In: Dudley, S. ed., 2010. *Museum Materialities: Objects, Engagements, Interpretations.* London: Routledge, pp.21-38.

Edwards, E. 2011. Tracing Photography. In: Banks, M., and Ruby, J. eds., 2011. *Made to be Seen: Perspectives on the History of Visual Anthropology*. Chicago: University of Chicago Press, pp. 159–189.

Edwards, E. 2012. *The Camera as Historian: Amateur Photographers and Historical Imagination, 1885-1918*. Durham, NC: Duke University Press.

Edwards, E. 2012b. Objects of Affect: Photography Beyond the Image, *Annual Review of Anthropology*, 41(1), pp. 221–234.

Edwards, E. 2013. Photography and Archaeology: Frederick Bohrer. Reaktion Books, London, 2011. Exposures series. 192 pages, with 50 colour and 50 black & white illustrations. Softcover £17.95, ISBN 978-1-861-89870-8, *History of Photography*, 37(2), pp.245–247.

Edwards, E. 2014. Out and About: Photography, Topography and Historical Imagination. In: Shevchenko, O. ed., 2014. *Double Exposure: Memory and Photography.* London: Routledge, pp. 177–209.

Edwards, E. 2014b. Photographic Uncertainties: Between Evidence and Reassurance, *History and Anthropology*, 25(2), pp. 171–188.

Edwards, E. 2014c. Photographs, Mounts, and the Tactile Archive, *Interdisciplinary Studies in the Long Nineteenth Century*, (19), pp. 1–15.

Edwards, E. 2015. Anthropology and Photography: A Long History of Knowledge and Affect, *Photographies,* 8, pp.235-252.

Edwards, E. 2016a. Patterns of Collecting, Institutional Mindsets and the Problem of Hierarchies [Blog]. *Fotomusuem.* 15 September 2016. Available at: https://www.fotomuseum.ch/de/2016/09/15/patterns-of-collecting-institutional-mind-sets-and-the-problem-of-hierarchies/ (Accessed: 30 December 2019).

Edwards, E. 2016b. The presence of Non-Collections and the Challenge of Photographic Ecosystems [Blog]. *Fotomuseum.* 23 September 2016. Available at: http://www.fotomuseum.ch/en/explore/still-searching/articles/29378_the_presence_of_non_collections_and_the_challenge_of_photographic_ecosystems (Accessed: 30 December 2019).

Edwards, E. 2016c. More on Categories [Blog]. *Fotomuseum.* 3 October 2016. Available at: https://www.fotomuseum.ch/de/2016/10/03/more-on-categories/ (Accessed: 30 December 2019).

Edwards, E. 2017. The Extended Archive Vindicated, *History of Anthropology Newsletter,* 41. [Online]. Available From: http://histanthro.org./extended-archive-vindicated/. [Accessed 03/01/2018].

Edwards, E. 2018. From Museum to Library and Back Again: An Ethnography of Photographic Presence [Unpublished Paper]. Presented at Pitt Rivers Museum Seminar. 19 January 2018.

Edwards, E. 2022. *Photographs and the Practice of History: A Short Primer*. London: Bloomsbury.

Edwards, E. and Hart, J. 2004, Mixed Box: The Cultural Biography of a Box of Ethnographic Photographs. In: Edwards, E., and Hart, J. eds., 2004. *Photographs, Objects, Histories: On the Materiality of Images.* London: Routledge, pp.48-64.

Edwards, E. and Hart, J. eds. 2004b. *Photographs, Objects, Histories: On the Materiality of Images.* London: Routledge.

Edwards, E., Gosden, C., and Phillips, R. eds. 2006. *Sensible Objects: Material Culture, Colonialism, Museums*. Oxford: Berg.

Edwards, E. and Morton, C. 2009. *Photography, Anthropology and History: Expanding the Frame*. Farnham: Ashgate.

Edwards, E. and Morton, C. 2015. *Photographs, Museums, Collections: Between Art and Information.* London: Bloomsbury.

Edwards, S. 2019. Poignant Spaces. [Unpublished Paper]. Photography, Space, Violence Conference, Birkbeck, University of London. 13 December 2019.

Edgeworth, M. ed. 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations.* Oxford: AltaMira Press.

Elhadd, T.A. 2015. Sir Henry Solomon Wellcome and Dr Andrew Balfour: An Enterprise on the Nile and the Early Foundation of Public Health and Medical Research in the Sudan (1899-1935), *The Journal of the Royal College of Physicians of Edinburgh*, 45(2), pp. 165–72.

Erdogu, A. 2004. Picturing Alterity: Representational Strategies in Victorian Type Photographs of Ottoman Men. In: Hight, E.M., and Sampson, G.D. eds., 2004. *Colonialist Photography: Imag(in)ing Race and Place.* New York: Routledge, pp. 107–125.

Evans, P. 2017. *Field Notes from the Edge: Journeys through Britain's Secret Wilderness*. London: Rider Books.

Everill, P. 2011. Hidden Hands: Egyptian Workforces in Petrie Excavation Archives, 1880–1924. By Stephen Quirke, *Archaeological Journal*, 168(1), pp. 453–454.

Ewing, W.A. 1994. *The Body: Photographs of the Human Form*. London: Thames & Hudson.

Eyre, J. 2016. Facing up to Wren and Hawksmoor. In: *New Bodleian: Making the Weston Library.* Oxford: Bodleian Library in Association with WilkinsonEyre and Mace. pp.80-93.

Fabian, J. 1983. *Time and the Other: How Anthropology Makes its Object.* New York: Columbia University Press.

Fagan, B.M. 2004. *The Rape of the Nile: Tomb Robbers, Tourists, and Archaeologists in Egypt*. Boulder: Westview Press.

Fagan, B.M. 2014. *The Great Archaeologists*. London: Thames & Hudson.

Falzetti, A.G. 2015. Archival Absence: The Burden of History, *Settler Colonial Studies*, 5(2), pp. 128–144.

Farge, A., Scott-Railton, T., and Davis, N.Z. 2014. *The Allure of the Archives.* New Haven: Yale University Press.

Farrington, T. 2008. The View from Above. 3 July 2008. *The National*. Available at: https://www.thenational.ae/arts-culture/books/the-view-from-above-1.233630 (Accessed: 20 March 2019).

Favero, P. 2017. The Transparent Photograph: Reflections on the Ontology of Photographs in a Changing Digital Landscape, *Anthropology and Photography,* (7), pp.1-17.

Findlay, C. 2016. Archival Activism, *Archives and Manuscripts*, 44(3), pp.155-159.

Fitzpatrick, A. 2020. You Will Never Be Indiana Jones. [Blog]. *Lady Science*. Available at: https://www.ladyscience.com/essays/you-will-never-be-indiana-jones-toxic-masculinity-archaeology (Accessed: 23 July 2020).

Fitzpatrick, A. 2021. Archaeology as Violence: Confronting the Dynamics of a Violent Practice and Theory. [Blog]. *Animal Archaeology*. Available at:

https://animalarchaeology.com/2021/01/08/archaeology-as-violence-confronting-the-dynamics-of-a-violent-practice-and-theory/ (Accessed: 10 February 2021).

Ford, A. 2011. *The Art of Mindful Walking: Meditations on the Path*. Lewes: Leaping Hare.

Forster, L. 2020. Radical Friendship [Blog]. *History Workshop*. 10 June 2020. Available at: https://www.historyworkshop.org.uk/radical-friendship/ (Accessed: 6 August 2021).

Fowler, C. 2013. *The Emergent Past: A Relational Realist Archaeology of Early Bronze Age Mortuary Practices.* Oxford: University Press.

Fox, C. 1932. *The Personality of Britain: Its Influence on Inhabitant and Invader in Prehistoric and Early Historic Times*. Cardiff: National Museum of Wales and the Press Board of the University of Wales.

Fox, P. 2018. An Unprecedented Wartime Practice: Kodaking the Egyptian Sudan, *Media, War & Conflict*, 11(3), pp. 309–335.

Fox, P. 2019. Trophies of War: British Flying Officers' Photograph Albums and the Memory of Air Operations in Egypt, 1915—1918, *History Compass*, 17(12), pp. 1-10

Foxhall, L. 2000. The Running Sands of Time: Archaeology and the Short-Term, *World Archaeology,* 31(3), pp.484-498.

Franklin, K. and Boak, E. 2019. The Road from Above: Remotely Sensed Discovery of Early Modern Travel Infrastructure in Afghanistan, *Archaeological Research in Asia*, 18, pp. 40–54.

Frantz, A. 1955. Photography for Archaeologists: A Review, *Antiquity*, 29(113), pp.15–16.

Freire-Marreco, B.W., Haddon, A.C., and Myres, J.L. 1912. *Notes and Queries on Anthropology* [4th ed]. London: Royal Anthropological Institute.

G—W—G. 1925. The Carriages at the Khalifas House, *Sudan Notes and Records*, 8, pp. 235–236.

Galvin, J. 2018. The Meteorological Legacy of the First World War, *Weather*, 73(11), pp. 339–341.

Gardner, A. 2001. The Times of Archaeology and Archaeologies of Time, *Papers from the Institute of Archaeology*, 12, pp. 35–47.

Gardner, A. 2012. Time and Empire in the Roman World. *Journal of Social Archaeology*. 12(2). pp. 145–166.

Garstang, J. 1910. *Excavations at Meroë, Sudan, 1910: Guide to the Ninth Annual Exhibition of Antiquities Discovered*. Liverpool: University of Liverpool University Press.

Geismar, H. 2006. Malakula: A Photographic Collection. *Comparative Studies in Society and History*. 48(3). pp.520–563.

Geismar, H. and Herle, A. eds.2010. *Moving Images: John Layard, Fieldwork and Photography on Malakula since 1914.* Honolulu: University of Hawaii Press.

Gell, A.1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.

Gero, J. 1985. Socio-Politics and the Woman-at-Home Ideology, *American Antiquity*, 50(2), pp. 342–350.

Gero, J.M. 1996. Archaeological Practice and Gendered Encounters with Field Data. In: Wright, R. ed., 1996. *Gender and Archaeology*. Philadelphia: University of Pennsylvania Press, pp. 251-80.

Gilchrist, R. 2000. Archaeological Biographies: Realising Human Lifecycles: Courses and Histories, *World Archaeology,* 31(3), pp.325-328.

Gillings, M. and Pollard, J. 1999. Non-Portable Stone Artefacts and Contexts of Meaning: The Tale of Grey Wether. *World Archaeology.* 31(2) pp.179-193.

Gillings, M. and Pollard, J. 2016. Making Megaliths: Shifting and Unstable Stones in the Neolithic of the Avebury Landscape. *Cambridge Archaeological Journal.* 26(4). pp.537-559.

Gillings, M., Hacıgüzeller,P and Lock, G. 2019. *Re-Mapping Archaeology: Critical Perspectives, Alternative Mappings*. Abingdon, Oxon: Routledge.

Glass, J. 2021. Netflix's "The Dig" Accused of Sexism for its Portrayal of Lily James Character. *U105*. 1 February 2021. [Online]. Available at: https://www.u105.com/news/buzz/netflixs-the-dig-accused-of-sexism/ (Accessed: 30 July 2021).

Glazzard, A. 2017. The Victorian Jihadis, *New Statesman*, 146(5381), pp. 36–39.

Gleichen, E. 1905. *The Anglo-Egyptian Sudan: A Compendium Prepared by Officers of the Sudan Government.* London: H.M. Stationery Office.

Golia, M. 2009. *Photography and Egypt*. London: Reaktion.

González-Ruibal, A. 2010. Colonialism and European Archaeology. In: Lydon, J.and Rizvi, U.Z., 2010. *Handbook of Postcolonial Archaeology*, Walnut Creek: Left Coast Press. pp. 30-50.

González Ruibal, A. ed., 2013. *Reclaiming Archaeology: Beyond the Tropes of Modernity*. London: Routledge.

Goode, J.F. 2007. *Negotiating for the Past: Archaeology, Nationalism, and Diplomacy in the Middle East, 1919-1941*. Austin: University of Texas Press.

Gopal, P. 2017. Yes, we must Decolonise: Our Teaching has to go beyond Elite White Men. *The Guardian.* 27 October 2017. [Online]. Available at: https://www.theguardian.com/commentisfree/2017/oct/27/decolonise-elite-white-men-decolonising-cambridge-university-english-curriculum-literature (Accessed: 21 March 2019).

Gordon, M. 2019. Viewing Violence in the British Empire: Images of Atrocity from the Battle of Omdurman, 1898, *Journal of Perpetrator Research*, 2(2), pp. 65–100.

Gosden, C. 1994. *Social Being and Time*. Oxford: Blackwell.

Gosden, C. 1999. *Anthropology and Archaeology: A Changing Relationship*. London: Routledge.

Gosden, C. 2004. *Archaeology and Colonialism.* Cambridge: Cambridge University Press.

Gosden, C. 2005. What Do Objects Want? *Journal of Archaeological Method and Theory*, 12(3), pp. 193–211.

Gosden, C. and Marshall, Y. 1999. The Cultural Biography of Objects, *World Archaeology*, 31(2), pp. 169–178.

Gosden, C., Larson, F. and Petch, A. 2007. *Knowing Things: Exploring the Collections at the Pitt Rivers Museum 1884-1945.* Oxford: Oxford University Press.

Gosden, C. and Malafouris, L. 2015. Process archaeology (P-Arch), *World Archaeology*, 47(5), pp. 701–717.

Gower, H.D. 1916. *The Camera as Historian: A Handbook to Photographic Record Work.* London: L.S. Jast and W.W. Topley.

Gratton, G.B. 2012. The Meteorological Research Flight and its Predecessors and Successors, *Journal of Aeronautical History*, 06, pp. 83–111.

Graves-Brown, P. and Schofield, J. 2019. Encountering Landscape: Travel as Method, *Landscapes,* 20(1), pp. 61–84.

Great Britain Meteorological Office. 1918. *Meteorological Glossary*. England: H.M. Stationery Office.

Great Britain War Office, Intelligence Division 1889. *History of the Sudan Campaign*. London: H.M. Stationery Office.

Green, A. 2014. Salisbury Museum and General Pitt-Rivers's Wessex Collection, 1975–2014, *Museum History Journal*, 7(2), pp. 224–243.

Grimes, W.F. 1940. The Sutton Hoo Ship Burial. VII. The Salvaging of the Finds, *Antiquity*, 14(53), pp.69-75.

Grimes, W.F. ed., 1951. *Aspects of Archaeology in Britain and Beyond: Essays Presented to O.G.S. Crawford.* London: H.W. Edwards.

Grimshaw, A. and Ravetz, A. 2015. Drawing with a Camera? Ethnographic Film and Transformative Anthropology, *Journal of the Royal Anthropological Institute*, 21(2), pp.255–275.

Grzymski, C. 2006. Territory and Landscape Archaeology in the Middle Nile Valley 1000 BC - AD 1500. In: Caneva, I. and Roccati, I. 2006. *Acta Nubica, Proceedings of the X International Conference of Nubian Studies*. Rome: Istituto Poligrafico e Zecca dello Stato, Libreria dello Stato.

Guha, S. 2003a. The Camera and the Spade: Photography in the Making of Archaeological Knowledge [Unpublished Paper]. Visual Knowledges Conference, The University of Edinburgh. 17-20 September 2003.

Guha, S. 2003b. Mortimer Wheeler's Archaeology in South Asia and its Photographic Presentation. *South Asian Studies*. 19(1). pp. 43–55.

Guha, S. 2005a. Archaeology and Photography. In: Lenman, R. ed. 2005. *The Oxford Companion to the Photograph.* Oxford: Oxford University Press. [Online]. Available at: https://ezproxy-prd.bodleian.ox.ac.uk:2518/view/10.1093/acref/9780198662716.001.0001/acref-9780198662716-e-78 (Accessed: 4 January 2020).

Guha, S. 2005b. Negotiating Evidence: History, Archaeology and the Indus Civilisation. *Modern Asian Studies*. 39(2). pp. 399–426.

Guha, S. ed. 2010. *The Marshall Albums: Photography and Archaeology.* Ahemedabad: Mapin Publishing.

Guha, S. 2013. Beyond Representations: Photographs and Archaeological Knowledge, *Complutum*, 24(2), pp. 173–188.

Guha, S. 2015. *Artefacts of History: Archaeology, Historiography and Indian Pasts.* New Delhi: Sage.

Hall, M.A. 2004. *Romancing the Stones: Archaeology in Popular Cinema*, *European Journal of Archaeology*. Cambridge University Press

Hall, C. & McClelland, K. 2010. *Race, Nation and Empire: Making Histories, 1750 to the Present*. Manchester: Manchester University Press.

Hallam, E. and Ingold, T. 2014. *Making and Growing: Anthropological Studies of Organisms and Artefacts*. Farnham: Ashgate Publishing Limited.

Halstead, N., Hirsch, E. and Okely, J. 2008. *Knowing How to Know: Fieldwork and the Ethnographic Present*. Oxford: Berghahn.

Hamad, B. 1995. Sudan Notes and Records and Sudanese Nationalism, 1918-1956. *History in Africa*, 22. pp. 239–270.

Hamblyn, R. 2008. *The Cloud Book: How to Understand the Skies*. Newton Abbot: David & Charles.

Hamilakis, Y. 2001. Monumental Visions: Bonfils, Classical Antiquity and Nineteenth-Century Athenian Society. *History of Photography*, 25(1), pp.5–12.

Hamilakis, Y. 2014. *Archaeology and the Senses: Human Experience, Memory, and Affect*. Cambridge: Cambridge University Press.

Hamilakis, Y., Pluciennik, M. & Tarlow, S., 2002. *Thinking through the body : archaeologies of corporeality*, New York ; London: Kluwer Academic/Plenum.

Hamilakis, Y. and Anagnostopoulos, A. 2009. What is Archaeological Ethnography? *Public Archaeology: Archaeological Ethnographies Special Edition*. 8(2-3) pp.65-87.

Hamilakis, Y., Anagnostopoulos, A., and Ifantidis, F. 2009. Postcards from the Edge of Time: Archaeology, Photography, Archaeological Ethnography (A Photo-Essay). *Public archaeology*, 8(2-3), pp.283–309.

Hamilakis, Y. and Ifantidis, F. 2015. The Photographic and the Archaeological: The 'Other Acropolis'. In: Carabott, P., Hamilakis, Y., and Papargyriou, E. 2015. *Camera Graeca: Photographs, Narratives, Materialities*. Farnham: Ashgate, pp. 133–158.

Hamilakis, Y. and Jones, A.M. 2017. Archaeology and Assemblage, *Cambridge Archaeological Journal,* 27(1), pp. 77–84.

Hamilton, C. 2000. Faultlines: The Construction of Archaeological Knowledge at Çatalhöyük. In: Hodder, I. ed., 2000. *Towards Reflexive Method in Archaeology: The Example at Çatalhöyük*. Cambridge: McDonald Institute for Archaeological Research, pp. 119–128.

Hamilton, C. 2002. *Refiguring the Archive*. Dordrecht: Springer-Science & Business Media, BV.

Haraway, D. 1988. Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective, *Feminist Studies*, 14(3), pp. 575–599.

Haraway, D. 2001. The Persistence of Vision. In: Mirzoeff, N. ed., 2001. *The Visual Culture Reader.* London: Routledge, pp. 191–198.

Harlan, D. 2005. The Archaeology of Lantern Slides: The Teaching Slide Collection of the Ashmolean Museum, Oxford. In: Crangle, R., Heard, M., and van Dooren, I. eds., 2005. *Realms of Light: Uses and Perceptions of the Magic Lantern from the 17th to the 21st Century*. Ripon: The Magic Lantern Society, pp.203-210.

Harris, A. 2016. *Weatherland: Writers and Artists under English Skies*. London: Thames and Hudson.

Harrison, F.V., and Association of Black Anthropologists. 2010. *Decolonizing Anthropology: Moving Further Toward an Anthropology of Liberation*. 3rd ed. Arlington, Vancouver: Association of Black Anthropologists, American Anthropological Association.

Harrison, M. 2017. *Rain: Four Walks in English Weather*. London: Faber & Faber.

Hartocollis, A. 2021. Images of Slaves Are Property of Harvard, Not a Descendant, Judge Rules. *The New York Times*. 4 March 2021. Available at: https://www.nytimes.com/2021/03/04/us/harvard-slave-photos-renty.html (Accessed: 26 July 2021).

Hauser, K. 2003. Photography and the Archaeological Imagination in Britain c.1927-1951. PhD Thesis. University of Oxford: Oxford.

Hauser, K. 2007. *Shadowsites: Photography, Archaeology and the British Landscape, 1927-1955.* Oxford: Oxford University Press.

Hauser, K. 2008. *Bloody Old Britain: OGS Crawford and the Archaeology of Modern Life.* London: Granta Books.

Hawkes, C. 1964. Sutton Hoo: Twenty-Five Years After, *Antiquity*, 38(152), pp.252–257.

Hawkes, J. 1951. A Quarter Century of Antiquity, *Antiquity*, 25(100), pp.171-173.

Hawkes, J. 1957. The Longstone, Mottistone, *Antiquity*, 31(123), pp. 147–152.

Hawkes, J. 1984. *Mortimer Wheeler: Adventurer in Archaeology*. London: Abacus.

Hawkes, J. 2012 [1951]. *A Land.* London: Harper Collins.

Hayes, E. 2019. Fashioned in the Light of Physics: The Scope and Methods of Halford Mackinder's Geography, *The British Journal for the History of Science,* 52(4). pp. 569–594.

Head, R.C. 2016. Configuring European Archives: Spaces, Materials and Practices in the Differentiation of Repositories from the Late Middle Ages to 1700, *European History Quarterly*, 46(3), pp. 498–518.

Henderson, K. D. D. 1953. Review of The Fung Kingdom of Sennar, by O. G. S. Crawford, *Sudan Notes and Records*, *34*(1), pp.122–128.

Henning, M. 2018. Photochemistry, Atmosphere and Affect in the Case of Illford Limited 1914-1945. Unpublished Paper presented at Birkbeck History and Theory of Photography Research Centre Symposium. 5 June 2018.

Henning, M. 2020. The Worlding of Light and Air: Dufaycolor and Selochrome in the 1930s, *Visual Culture in Britain*, 21(2), pp. 177–198.

Hewitt, R. 2010. *Map of a Nation: A Biography of the Ordnance Survey*. London: Granta.

Hicks, D. [N.D]. Jacquetta Hawkes, Sir Isaac Newton, and the Idea of Stratigraphy [Blog]. *Day of Archaeology*. Available at: https://www.dayofarchaeology.com/jacquetta-hawkes-sir-isaac-newton-and-the-idea-of-stratigraphy/ (Accessed: 15 September 2020).

Hicks, D. 2018. Challenging Histories [Unpublished Conference Paper]. Challenging Histories: A CDP Training Workshop. Oxford University Museum of Natural History and the Pitt Rivers Museum. 28 November 2018.

Hicks, D. 2019a. The Transformation of Visual Archaeology (Part One). In: McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.21-54

Hicks, D. 2019b. The Transformation of Visual Archaeology (Part Two). In: McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.209-242.

Hicks, D. 2020. *The Brutish Museums: The Benin Bronzes, Colonial Violence and Cultural Restitution.* London: Pluto Press.

Hicks, D. and Mallet, S. 2019. *Lande*. Bristol: Bristol University Press.

Hicks, J. 2010. *David Roberts' 'Egypt & Nubia' as Imperial Picturesque Landscape.* Unpublished PhD Thesis. University of Hertfordshire. [Online]. Available at: https://ezproxy-prd.bodleian.ox.ac.uk:2090/docview/1124120960?pq-origsite=primo (Accessed: 31 July 2021).

Hill, K. 2017. Museum Archives: Undisciplined and Undisciplinary [Unpublished Conference Paper]. Archives and Rabbit Holes: Histories of Archaeology Research Network Conference, UCLan. 3 November 2017.

Hillier, M. 2020. *Royal Flying Corps Kitbag: Aircrew Uniforms and Equipment from the War Over the Western Front in WWI*. Barnsley: Frontline Books.

Historic England. 2018. Hillforts – Introductions to Heritage Assets HEAG206.

Hodder, I. 1987. *Archaeology as Long-Term History*. Cambridge: Cambridge University Press.

Hodder, I. 1997. Always Momentary, Fluid and Flexible: Towards a Reflexive Excavation Methodology, *Antiquity*, 71(273), pp. 691–700.

Hodder, I. 1999. *The Archaeological Process: An Introduction*. Blackwell Publishers: Oxford.

Hodder, I. 2000. *Towards Reflexive Method in Archaeology: The Example at Çatalhöyük*. Cambridge: McDonald Institute for Archaeological Research.

Hodder, I. 2012. *Entangled: An Archaeology of the Relationships Between People and Things.* Oxford: Wiley-Blackwell.

Hodgett, B. 2019. 'Rear Elevation' and Other Stories: Re-excavating Presence in O.G.S. Crawford's Photographs of the 1939 Sutton Hoo Excavation, *Antiquity*, 93(370).

Hodgett, B., Campbell, K., Dawson, A., Smith, K. [Forthcoming]. Playing Fun Games with Time and Space: Applying Photogrammetry and GIS to the Historic Archaeological Archive.

Holdaway, S. and Wandsnider, L. 2008. *Time in Archaeology: Time Perspectivism Revisited*. Salt Lake City: University of Utah Press.

Hollander, P. 1981. *Political Pilgrims: Travels of Western Intellectuals to the Soviet Union, China, and Cuba, 1928-1978*. Oxford: Oxford University Press.

Holtorf, C. 2006. Studying Archaeological Fieldwork in the Field: Views from Monte Polizzo. In: Edgeworth, M. 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations.* AltaMira Press: Oxford.

Holtorf, C. 2007. *Archaeology is a Brand! The Meaning of Archaeology in Contemporary Popular Culture*. Oxford: Archaeopress.

hooks, b. 1989. Choosing the Margin as a Space of Radical Openess, *Framework*, 36(36), pp.15–23.

Hooley, R. 1929. Excavation of an Early Iron Age Village on Worthy Down, Winchester, *Proceedings of the Hampshire Field Club and Archaeological Society*, 10(2), p. 178.

Howe, C. 2018. Melt as Sensory Labour. *Cultural Anthropology*. [Online]. Available at: https://culanth.org/fieldsights/519-the-naturalization-of-work (Accessed: 19 September 2018).

Howes, D. ed., 1991. *The Varieties of Sensual Experience: A Sourcebook in the Anthropology of the Senses*. Toronto: University of Toronto Press.

Howes, D. 2014. *Ways of Sensing: Understanding the Senses in Society*. New York: Routledge.

Hubbard, A. J. and Hubbard, G. 1907. *Neolithic Dewponds and Cattle Ways.* [2nd ed]. London: Longmans, Green and Co.

Hughes, K. 2017. *Victorians Undone: Tales of the Flesh in the Age of Decorum*. London: 4th Estate.

Hughes-Watkins, L. 2018. Moving Towards a Reparative Archive: A Roadmap for a Holistic Approach to Distributing Homogenous Histories in Academic Repositories and Creating Inclusive Spaces for Marginalized Voices. *Journal of Contemporary Archival Studies*. 5(6). [Online]. Available at: https://elischolar.library.yale.edu/jcas/vol5/iss1/6 (Accessed: 14 November 2018).

Hulsbosch, M. 2014. *Pointy Shoes and Pith Helmets : Dress and Identity Construction in Ambon from 1850 to1942.* Brill: Koninklyk Instituut Voor Taal Land.

Humble, K. 2018. *Thinking on My Feet: The Small Joy of Putting One Foot in Front of the Other*. London: Aster.

Huntingford, G.W.B. 1934. Defences against Cattle-Raiding, *Antiquity*, 8(32), pp.429-436.

Huntingford, G.W.B. 1952. Jebel Moya. By Frank Addison, F.S.A. With a chapter by A. D. Lacaille, F.S.A. The Wellcome Excavations in the Sudan. 2 vols. pp. xiv, 399, with 123 text-figures and 116 plates. Oxford University Press, 1949. Price £6 6s. for the two volumes, *Bulletin of the School of Oriental and African Studies*, 14(01), pp. 183–185.

Ingold, T. 1993. The Temporality of the Landscape, *World Archaeology*, 25(2), pp.152–174.

Ingold, T. 1997. The Picture is Not the Terrain. Maps, Paintings and the Dwelt-in World, *Archaeological Dialogues*, 4(1), pp. 29–31.

Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling & Skill*. New York: Routledge.

Ingold, T. 2010. Footprints through the Weather-World: Walking, Breathing, Knowing, *Journal of the Royal Anthropological Institute*, 16(1), pp. 121–139.

Ingold, T. 2011a. *Being Alive: Essays on Movement, Knowledge and Description*. London: Routledge.

Ingold, T., 2011b. *Redrawing Anthropology: Materials, Movements, Lines*. London: Routledge.

Ingold, T. 2014. Drawing with Tim Ingold [Podcast]. *Sensate Journal.* Available at: http://sensatejournal.com/tim-ingold-drawing-with-tim-ingold/ (Accessed: 4 December 2018).

Ingold, T. 2016 [2007]. *Lines: A Brief History.* London: Routledge.

Ingold, T. 2017. Anthropology contra ethnography. *HAU: Journal of Ethnographic Theory*. 7(1). pp. 21–26.

Institute of Archaeology, Oxford. 2011. O.G.S. Crawford: The Father of Aerial Archaeology in England [Blog]. *Archaeology Archives Oxford*. 22 June 2011. Available at: https://archaeologyarchivesoxford.wordpress.com/archive-collections/o-g-s-crawford-the-father-of-aerial-archaeology-in-england/ (Accessed: 19 October 2017).

Isherwood, I. A. 2014. To Fly is more Fascinating than to Read about Flying: British R.F.C. Memoirs of the First World War, 1918-1939, *WLA: War, Literature & the Arts*, 26, pp. 1-20.

Jackson, H.C. 1912. *Tooth of Fire: Being Some Account of the Ancient Kingdom of Sennâr*. Oxford: Blackwell.

Jackson, H.C. 1926. A Trek in Abu Hamed District. *Sudan Notes and Records.* 9(2). pp.1-35.

James, P. 1988. Evolution of the photographic record and survey movement, c. 1890-1910, *History of Photography*, 12(3), pp. 205-218.

James, T.G.H. 2004. Moss, Rosalind Louisa Beaufort (1890–1990), Egyptologist and Bibliographer. In: Anon. 2018. *Oxford Dictionary of National Biography*. Oxford: Oxford University Press.

Janes, R.R. and Sandell, R. 2019. *Museum Activism*. London: Routledge.

Jones, R. 2005. The Advantages of Bias in Roman Studies. In: Brophy, K. and Cowley, D. eds., 2005. *From the Air: Understanding Aerial Archaeology.* Stroud: Tempus, pp. 86–93.

Joy, J. 2009. Reinvigorating Object Biography: Reproducing the Drama of Object Lives, *World Archaeology*, 41(4), pp.540-556.

Joyce, R.A. and Pollard, J. 2010. Archaeological Assemblages and Practices of Deposition. In: Beaudry, M.C. and Hicks, D. 2010. *The Oxford Handbook of Material Culture Studies.* Oxford: Oxford University Press.

Kaeser, M.A. 2008. Biography as Microhistory: The Relevance of Private Archives for Writing the History of Archaeology. In: Schlanger, N. and Nordblach, J. eds., 2008. *Archives, Ancestors, Practices: Archaeology in Light of Its History*. Oxford: Berghahn Books, pp. 9–20.

Kaplan, F.E.S. 1994. *Museums and the Making of 'Ourselves': The Role of Objects in National Identity*. London: Leicester University Press.

Karsanī, A. and Hassan, Y.F. 2002. *The Sudanese-British Relations: Papers from an International Conference, Khartoum, February 2001*. Khartoum: Khartoum University Press.

Kaye *et al.* 2006. To Have and To Hold: Exploring the Personal Archive. *Personal Information Management*. (22)27. pp.275-284.

Keiller, A. 1928. Preface. In: Crawford, O.G.S., and Keiller, A. 1928. *Wessex from the Air.* Oxford: Clarendon Press.

Kemp, W. 1990. Images of Decay: Photography in the Picturesque Tradition, *October*, (54), pp. 102–133.

Kendrick, T.D. 1940. The Sutton Hoo Ship Burial II: The Gold Ornaments. *Antiquity*. 14(53). pp.28-30.

Kendrick, T.D. 1940. The Sutton Hoo Ship Burial IV: The Archaeology of the Jewellery. *Antiquity.* 14(53). pp.34-39.

Kennedy, D.K. 2013. *The Last Blank Spaces: Exploring Africa and Australia*. Cambridge, MA: Harvard University Press.

Kirk, R. 1956. Sir Henry Wellcome and the Sudan. *Sudan Notes and Records*. 37. pp. 79–89.

Kirk-Greene, A. 1982. The Sudan Political Service: A Profile in the Sociology of Imperialism, *International Journal of African Historical Studies*, 15(1), pp. 21–48.

Kirshenblatt-Gimblett, B. 1991. Objects of Ethnography. In: Karp, I. and Steven, D. eds. 1991. Exhibiting cultures: the Poetics and Politics of Museum Display. London: Smithsonian Institution Press. pp.386-443.

Kleppe, E.J. 1997. The Funj Problem in Archaeological Perspective, *Sudan Notes and Records*, (1), pp. 1–24.

Knapp, A.B. 1992. *Archaeology, Annales, and Ethnohistory*. Cambridge: Cambridge University Press.

Knight, M. and McFadyen, L. 2019. 'At Any Given Moment': Duration in Archaeology and Photography. In: McFadyen, L. and Hicks, D. eds., 2019*. Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.55-72.

Knight, S. 2019. The Search for England's Forgotten Footpaths. *The New Yorker.* 12 January 2019. [Online]. Available at: https://www.newyorker.com/news/letter-from-the-uk/the-search-for-englands-forgotten-footpaths (Accessed: 2 April 2019).

Knoll, M.K. and Carver-Kubik, A. 2019. In-Field Digital Photography and the Curation of Associated Records: Not All Prints Are Created Equal, *Advances in Archaeological Practice*, 7(3), pp. 302–310.

Knowlden, P. 2017. William Matthew Flinders Petrie - the Kentish Years. *Archaeologia Cantiana, Kent Archaeological Society*. 128. pp. 35–57.

Koivunen, L. 2008. *Visualizing Africa in Nineteenth-Century British Travel Accounts*. New York: Routledge.

Kopytoff, I. 1986. The Cultural Biography of Things: Commoditization as Process. In Appadurai, A. 1986. *The Social Life of Things: Commodities in Cultural Perspective.* Cambridge: Cambridge University Press. pp.64-94.

Kragel, J.E., Morton, N.W., and Polyn, S.M. 2015. Neural Activity in the Medial Temporal Lobe Reveals the Fidelity of Mental Time Travel. *Journal of Neuroscience*. 35(7). pp. 2914–2926.

Krobb, F. 2012. 'The Starting Point for the Civilisation of the Dark Continent': Austrians in the Sudan: Ernst Marno and Rudolf Slatin as Agents of African Conquest, *Austrian Studies*, 20, pp. 142–160.

Kulkarni, V. 2010. World's First Nudist Colony was in Thane (and this man proved it). *Mumbai Mirror.* 25 April 2010. Available at: https://mumbaimirror.indiatimes.com/mumbai/cover-story/Worlds-first-nudist-colony-was-in-Thane-and-this-man-proved-it/articleshow/16011435.cms (Accessed: 18 March 2019).

Kurcz, M. 2014. Imaginary Sudan – Reflections on the Formation of the Notion of Sudan in the Period of European Influences, *Ethnologia Actualis*, 14(1), pp. 19–36.

Kurz, M. and Linant de Bellefonds, P. 2001. Linant de Bellefonds: Travels in Egypt, Sudan and Arabia Petraea 1818-1828. In: Starkey, P. and Starkey, J. eds., 2001. *Travellers in Egypt*. London: Tauris Parke Paperbacks, pp. 61–69.

Lanier, T. 2019. *Tamara Lanier v. President and Fellows of Harvard College aka Harvard Corporation, Harvard Board of Overseers, Harvard University, The Peabody Museum of Archaeology and Ethnology*. [Civil Action Lawsuit]. Available at: https://www.courthousenews.com/wp-content/uploads/2019/03/harvard-photos.pdf (Accessed: 26 July 2021).

Latour, B. 2000 (1993). The Berlin Key or How to Do Words with Things. In: Graves-Brown, P. 2000. *Matter, Materiality and Modern Culture.* Routledge: London, pp.10-21.

Latour, B., 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*, Oxford: Oxford University Press.

Leach, S. 2017. L. S. Klejn and R. G. Collingwood on History, Archaeology, and Detection, *Journal of the Philosophy of History*, 11(3), pp. 391–407.

Leask, N. 2002. From and Antique Land: *Curiosity and the Aesthetics of Travel Writing, 1770-1840.* Oxford ; New York: Oxford University Press.

Leeuw, S.E. van der and McGlade, J. 1997. *Time, Process, and Structured Transformation in Archaeology*. London: Routledge.

Lennon, J.J. 2018. Dark Tourism Visualisation: Some Reflections on the Role of Photography. In: Stone, R. et al., 2018. *The Palgrave Handbook of Dark Tourism Studies*. London: Palgrave MacMillan, pp. 585–602.

Lewis, S. 2019. The Racial Bias Built Into Photography. *The New York Times* [Online]. 25 April 2019. Available at: https://www.nytimes.com/2019/04/25/lens/sarah-lewis-racial-bias-photography.html (Accessed: 29 April 2019).

Limbrey, S. 1975. *Soil Science and Archaeology*. London: Academic Press.

Linant de Bellefonds, M.A. 1832. Journal of a Voyage on the Bahr-Abiad or White Nile, with some general Notes on that River, and some Remarks on the District of Atbara, made in a Tour from Hartoum. Translated and partially abridged from a Report addressed by M. Adolphe Linant to W.M. Leake, Esq., Secretary of the Association for Promoting the Discovery of the Interior Parts of Africa, *The Journal of the Royal Geographical Society*, 2, pp. 171–179.

Lohwasser, A. 2013. Tracks in the Bayuda Desert. The Project 'Wadi Abu Dom Itinerary' (W.A.D.I.). In: Förster, F. and Reimer, H. eds., 2013. *Desert Road Archaeology in Ancient Egypt and Beyond*, Köln: Heinrich-Barth-Institut, pp. 425-435.

Lorde, A. 2018. *The Master's Tools will Never Dismantle the Master's House*, London: Penguin Classics.

Lowenthal, D. 1991. British National Identity and the English Landscape, *Rural History*, 2(2), pp. 205–230.

Lucas, G. 2001a. *Critical Approaches to Fieldwork: Contemporary and Historical Archaeological Practice*. London: Routledge.

Lucas, G. 2001b. Destruction and the Rhetoric of Excavation, *Norwegian Archaeological Review*, 34(1), pp.35–46.

Lucas, G. 2004. *An Archaeology of Colonial Identity: Power and Material Culture in the Dwars Valley, South Africa*. New York: Kluwer Academic/Plenum Publishers.

Lucas, G. 2005. *The Archaeology of Time*. London: Routledge.

Lucas, G. 2010a. Time and the Archaeological Archive, *Rethinking History: The Journal of Theory and Practice*, 14(3), pp.342-359.

Lucas, G. 2010b. Triangulating Absence: Exploring the Fault-lines between Archaeology and Anthropology. In: Garrow, D. and Yarrow, T. eds., 2010. *Archaeology and Anthropology. Understanding Similarity, Exploring Difference*. Oxford: Oxbow Books, pp. 28-39.

Lucas, G. 2012. *Understanding the Archaeological Record*. New York: Cambridge University Press.

Macfarlane, R. 2013. *The Old Ways: A Journey on Foot*. London: Penguin Books.

Macfarlane, R. 2017. *The Wild Places*. London: Granta Books.

MacGregor, A. 2000. An Aerial Relic of OGS Crawford. *Antiquity*. 74(283) pp.87-100.

Maccurdy, G.G. 1905. Neolithic Dew-Ponds and Cattle-ways. By Arthur John Hubbard M.D., and George Hubbard F.S.A, *American Anthropologist*, 7(3), pp. 529–531.

Majumdar, N. 2017. Silencing the Subaltern: Resistance and Gender in Postcolonial Theory, *Catalyst Journal* [Online], 1(1). Available at: https://catalyst-journal.com/2017/11/silencing-the-subaltern (Accessed: 15 October 2019).

Malafouris, L. 2013. *How Things Shape the Mind: A Theory of Material Engagement*. London: MIT Press.

Malafouris, Lambros, Gosden, Chris & Bogaard, Amy, 2021. Process archaeology. *World archaeology*, 53(1), pp.1–14.

Maloigne, H. 2020. Friendship and Fieldwork. [Blog]. *History Workshop*. 16 July 2020. Available at: https://www.historyworkshop.org.uk/friendship-and-fieldwork/ (Accessed: 6 August 2021).

Malone, C. 2002. Antiquity—The first 75 Years, *Antiquity*, 76(294), pp.1072–1075.

Manuelian, der, P. and Reisner, G.A. 1992. George Andrew Reisner on Archaeological Photography, *Journal of the American Research Center in Egypt*, 29, pp. 1–34.

Markham, R. 2002. *Sutton Hoo Through the Rear-View Mirror 1937-1942*. Ipswich: The Sutton Hoo Society.

Matless, D. 1998. *Landscape and Englishness*. London: Reaktion Books.

Maxwell, A. 2008. *Picture Imperfect: Photography and Eugenics, 1870-1940*. Brighton: Sussex Academic Press.

McFadyen et.al., 1997. Gossiping on Other People's Bodies. Unpublished paper presented at Theoretical Archaeology Group (TAG) 1997 Conference, Bournemouth University. Cited In: Lucas 2001.*Critical Approaches to Fieldwork: Contemporary and Historical Archaeological Practice*. London: Routledge, pp. 13

McFadyen, L. and Vale, A. 2014. Buildings that Wrap Objects and Objects that Wrap Buildings. In: Rebay-Salisbury, K. Brysbaert, A. & Foxall, L. 2014. *Material Crossovers: Knowledge Networks and Craft Traditions in the Ancient World*. London: Routledge. pp.23-36.

McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts.

McFadyen, L. and Hicks, D. 2019. Introduction: From Archaeography to Photology. In: McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.1-20.

McGrath, A. and Jebb, M.A. 2015. *Long History, Deep Time: Deepening Histories of Place*. Canberra: ANU Press.

Méaux, D. 2019. Geo-Photographers. *Photographies*. 12(2). pp. 209–226.

Merriman, N. and Swain, H. 1999. Archaeological Archives: Serving the Public Interest? *European Journal of Archaeology*. 2(2) pp.249-267.

Merriman, N. 1999. *Making Early Histories in Museums*. London: Leicester University Press.

Merriman, N. 2000. The Crisis of Representation in Archaeological Museums. In: McManamon, F.P. & Hatton, A., 2000. *Cultural Resource Management in Contemporary Society: Perspectives on Managing and Presenting the Past*. London: Routledge, pp.613-633.

Merriman, P. *et al.* 2008. Landscape, Mobility, Practice. *Social & Cultural Geography*. 9(2). pp. 191–212.

Mickel, A., Filipowicz, P. and Bennison-Chapman, L. 2020. Ethnography, Engagement, Evaluations, and Endings: The Achievements and Limitations of Community Outreach at Çatalhöyük, *Near Eastern Archaeology*, 83(3), pp. 182-190.

Mickel, A. 2021. *Why Those Who Shovel are Silent: A History of Local Archaeological Knowledge and Labour.* Louisville: University Press of Colorado.

Michell, J. 1925. Alfred Watkins. In: *The Old Straight Track*. London: Abacus. pp. xv–xvii.

Michell, J. 1927. Introduction. In: *The Ley Hunters Manual*. Wellingborough: Turnstone Press Limited.

Mill, H.R. 1896. Proposed Geographical Description of the British Islands Based on the Ordnance Survey, *The Geographical Journal*, 7(4), pp. 345–256.

Miller, D. 2008. *The Comfort of Things*. Cambridge: Polity.

Miller, D. and Parrott, F. 2009. Loss and Material Culture in South London. *Journal of the Royal Anthropological Institute.* 15(3). pp.502-519.

Millican, K. 2018. Moving and Mapping Images: Aerial Photographs, Cropmarks and Movement [Unpublished Conference Paper]. Theoretical Archaeology Group Conference, Chester. December 2018.

Miranda, Amy & Raja, Rubina, 2022. Archive Archaeology: Preserving and Sharing Palmyra's Cultural Heritage through Harald Ingholt's Digital Archives. A case study in the accessibility and potential of archives. *Antiquity*, 96(385), pp.229–237.

Molyneaux, B. ed. 1997. *The Cultural Life of Images: Visual Representations in Archaeology.* London: Routledge.

Morely, L. 2012. Summary of Contents of Crawford Archive [Unpublished Survey]. O.G.S. Crawford Photographic Archive, Institute of Archaeology, Oxford.

Morgan, C. 2016. Analog to Digital: Transitions in Theory and Practice in Archaeological Photography at Çatalhöyük [Online], *Internet Archaeology*, (42).

Morton, C. 2009. Fieldwork and the Participant-Photographer: E.E. Evans-Pritchard and the Nuer Rite of Gorot. *Visual Anthropology*. 22(4) pp.252-274.

Morton, C. 2012. Photography and the Comparative Method: The construction of the Anthropological Archive. *Journal of the Royal Anthropological Institute*. 18(2). pp.369-396.

Morton, C. 2014. The Place of Photographs in the Collections, Displays, and Other Work of General Pitt-Rivers. *Museum History Journal*. 7(2). pp. 168–187.

Morton, C. 2018. Photography, The Anthropology Of. In: Cox, R. and Callan, H. ed. *International Encyclopaedia of Anthropology: Anthropology Beyond Text.* Vol 12. New York: Wiley-Blackwell.

Morton, C.A. & Edwards, E., 2016. *Photography, anthropology, and history : expanding the frame*, London, [England] ; New York, New York.

Mount, H. 2012. *How England made the English: From Hedgerows to Heathrow*. London: Viking.

Mulvey, L. (1975) 'Visual Pleasure and Narrative Cinema', *Screen (London)*, 16(3), pp. 6–18.

Murray, L. 2011. *A Zest for Life: The Story of Alexander Keiller*. Wooton Bassett: Morven Press.

Myres, J.L. 1951. The Man and His Past. In: Grimes, W.F. ed., 1951. *Aspects of Archaeology in Britain and Beyond: Essays presented to O.G.S. Crawford.* London: H.W. Edwards, pp.1-17.

National Trust, The. [N.D.] Digging the Dirt: The True story behind The Dig. [Blog]. *National Trust*. Available at: https://www.nationaltrust.org.uk/sutton-hoo/features/digging-the-dirt-the-true-story-behind-the-dig (Accessed: 25 January 2021).

National Trust, The. [N.D.] Historic Image Digitisation at Sutton Hoo. [Blog]. *National Trust*. Available at: https://www.nationaltrust.org.uk/sutton-hoo/features/conservation-in-action-at-sutton-hoo (Accessed: 25 January 2021).

Newbold, D. 1946. The Crusaders in the Red Sea and the Sudan. *Antiquity*. 20(80). pp.176–185.

Nicoll, F. 2004. *Sword of the Prophet: The Mahdi of Sudan and the Death of General Gordon*. Stroud: Sutton.

Nilsson, B. 2011. Archaeology and the Unstoppable Excavation Machine. A Swedish Point of View, *Archaeological Dialogues*, 18(1), pp. 26–29.

Nobes, G. & Panagiotaki, G. 2007. Adult's Representations of the Earth: Implications for Children's Acquisitions of Scientific Concepts. *British Journal of Psychology*. 98(4). pp.645–665.

Nochlin, L. 1991. *The Politics of Vision: Essays on Nineteenth-Century Art and Society*. Boulder: Taylor & Francis Group.

Nugent, M. *et al.* eds., 2016. *Brokers and Boundaries: Colonial Exploration in Indigenous Territory.* Acton: ANU Press.

O'Connor, A. 2003. *The Making of the British Early Palaeolithic, 1880-1960*. PhD Thesis. Durham University: Durham.

Ofrath, A. 2017. On Leaving the Archive. *The Oxford Artistic and Practise Based Research Platform*. Issue 1. pp.29-33. [Online]. Available at: http://www.oarplatform.com/on-leaving-the -archive/. (Accessed: 21 December 2017).

Olsen, B. 2003. Material Culture After Text: Re-Membering Things. *Norwegian Archaeological Review*. 36(2) pp.87-104.

Olsen, B., Shanks, M., Webmoor, T., and Witmore, C. 2012. *Archaeology the Discipline of Things.* Berkeley: University of California Press.

Opper, T. 2014. *The Meroe Head of Augustus*. London: British Museum.

Ortner, S.B. 2016. Dark Anthropology and its Others: Theory since the Eighties. *HAU: Journal of Ethnographic Theory*. 6(1). pp. 47–73.

Ortolja-Baird, A., and Nyhan, J. 2021. Encoding the Haunting of an Object Catalogue: On the Potential of Digital Technologies to Perpetuate or Subvert the Silence and Bias of the Early-Modern Archive, *Digital Scholarship in the Humanities*, 37(3), pp.844-867.

Ouzman, S. 2006. The Beauty of Letting Go: Fragmentary Museums and Archaeologies of Archive. In: Edwards, E., Gosden, C. & Phillips, R.B. eds., 2006. *Sensible Objects: Colonialism, Museums and Material Culture*. London: Routledge, pp. 269–301.

Ovenden, R. 2016. A New Vision for the Bodleian. In: *New Bodleian: Making the Weston Library*. Oxford: Bodleian Library in Association with WilkinsonEyre and Mace. pp.68-73.

Özendes, E. 1987. *Photography in the Ottoman Empire, 1839-1919*. İstanbul: Haşet Kitabevi.

Pandya, V. 1991. From Photography to Ethnography: Andamanese Documents and Documentation. *Visual Anthropology*. 4(3–4). pp. 379–413.

Patrik, L.E., 1986. The Aesthetic Experience of Ruins. *Husserl Studies.* 3(1) pp.31–55.

Paxon, H. 2018. The Naturalization of Labour as Working. *Cultural Anthropology*. [Online]. Available at: https://culanth.org/fieldsights/519-the-naturalization-of-work (Accessed: 19 September 2018).

Peake, H. 1922. *The English Village: The Origin and Decay of its Community, An Anthropological Interpretation*. London: Benn Brothers.

Pearce, S. 1999. Presenting Archaeology. In: Merriman, N., 1999. *Making Early Histories in Museums*, London: Leicester University Press. pp.12-27.

Pearce, S.M. 1995. *On Collecting: An Investigation into Collecting in the European Tradition*. London: Routledge.

Pearce, S.M. 2010. Foreword. In: Dudley, S. ed., 2010. *Museum Materialities: Objects, Engagements, Interpretations.* London: Routledge, pp.xiv-xix.

Perry, A. 2017. *Colonial Relations: The Douglas-Connolly Family and the Nineteenth-Century Imperial World*. Cambridge: Cambridge University Press.

Perry, S. 2013. Archaeological Visualization and the Manifestation of the Discipline: Model-Making at the Institute of Archaeology, London. In: Alberti, B., Jones, A., and Pollard, J. eds., 2013. *Archaeology after Interpretation: Returning Materials to Archaeological Theory.* California: Left Coast Press, pp. 281–303.

Petch, A. 2014. Two Nineteenth-Century Collectors-Curators Compared and Contrasted: General Augustus Henry Lane Fox Pitt-Rivers (1827–1900) and Augustus Wollaston Franks (1826–1897). *Museum History Journal*. 7(2). pp. 188–204.

Petrie, W.M.F. 1904. *Methods and Aims in Archaeology*. London: Macmillan.

Phillips, C.W. 1932. The Long Barrows of Lincolnshire. *Archaeological Journal.* 89(1). pp. 174–202.

Phillips, C.W. 1936. *The Excavation of the Giant's Hills Long Barrow, Skendleby, Lincolnshire*. Oxford: Printed by John Johnson for the Society of Antiquaries of London.

Phillips, C.W. 1939a. [Diary Entry. 21 July 1939]. Transcribed in: Bruce-Mitford, R.L.S., 1975. *The Sutton Hoo ship-burial*, London: British Museum Publications for the Trustees of the British Museum. pp.736.

Phillips, C.W. 1939b. [Diary Entry. 23 July 1939]. Transcribed in: Bruce-Mitford, R.L.S., 1975. *The Sutton Hoo ship-burial*, London: British Museum Publications for the Trustees of the British Museum. pp.738.

Phillips, C.W. 1939c. [Diary Entry. 25 July 1939]. Transcribed in: Bruce-Mitford, R.L.S., 1975. *The Sutton Hoo ship-burial*, London: British Museum Publications for the Trustees of the British Museum. pp.738.

Phillips, C.W. 1939d. [Diary Entry. 26 July 1939]. Transcribed in: Bruce-Mitford, R.L.S., 1975. *The Sutton Hoo ship-burial*, London: British Museum Publications for the Trustees of the British Museum. pp.739.

Phillips, C.W. 1940. The Sutton Hoo Ship Burial I: The Excavation. *Antiquity*. 14(53) pp.6-27.

Phillips, C.W. 1983. Sutton Hoo en Pantoufles. In: Carver, M. 2004. *Field Report: Fieldwork Before 1983. Vol 2.* Section 3.3 [Online]. Available at: http://archaeologydataservice.ac.uk/archives/view/suttonhoo_var_2004/fr_vol02.cfm?CFID=000e8302-dfb3-4fce-9623-b1dedcecd27b&CFTOKEN=0 (Accessed: 23 February 2018).

Phillips, C.W. 1987. *My Life in Archaeology.* Gloucester: Alan Sutton Publishing Limited.

Pickering, J. 1983. A Survey of Current Air Reconnaissance: the Achievement, the Failure. In: Maxwell, G.S. and St. Joseph, J.K.S. 1983*. The Impact of Aerial Reconnaissance on Archaeology.* London: Council for British Archaeology, pp. 1–4.

Piggott, S. 1976. O. G. S. Crawford, *Antiquity,* 50(199), pp.185-186.

Pink, S. 2009. *Doing Sensory Ethnography*. London: SAGE Research Methods.

Pink, S. 2011. Sensory Digital Photography: Re-thinking "Moving" and the Image, *Visual Studies*, 26(1), pp. 4–13.

Pink, S. 2013. Engaging the Senses in Ethnographic Practise: Implications and Advances, *The Senses and Society*, 8(3), pp.261-267.

Pitt-Rivers, A.H.L.F. 2014. On the Uses and Arrangement of Arts Museums: Illustrated by Series from the Pitt-Rivers Museums at Oxford and Farnham, Dorset, *Museum History Journal*, 7(2), pp. 135–154.

Poole, D. 1997. *Vision, Race, and Modernity: A Visual Economy of the Andean Image World*. Princeton: Princeton University Press

Pope, R. [N.D] History of the Prehistoric Society. [Webpage] *The Prehistoric Society*. Available at: http://www.prehistoricsociety.org/about/history_of_the_prehistoric_society/ (Accessed: 10 January 2020).

Powis, D. 2017. On the Importance of Collaboration (and Renumeration!) in Ethnographic Photography. *Savage Minds: Notes and Queries in Anthropology*. [Online] Available at: /2017/06/21/on-the-importance-of-collaboration-and-remuneration-in-ethnographic-photography/. (Accessed: 13 November 2018).

Prentiss, A.M. 2017. Anarchy and Archaeology [Special Issue], *The SAA Archaeological Record*, 17(1). Available at: http://onlinedigeditions.com/publication/index.php?i=378203 (Accessed: 22 February 2019).

Pritchard, M. 2014. *A History of Photography in 50 Cameras*. London: Bloomsbury.

Procter, E. 2012. Landscapism: On paths and trackways. [Blog]. *Landscapism*. 7 June 2012. Available at: http://landscapism.blogspot.com/2012/06/on-paths-and-trackways.html (Accessed: 15 October 2020).

Procter, E. 2020. Walking Back Through Time: A Landscape History of Pathways [Blog]. *Changing Landscapes, Changing Lives*. 20 September 2020. Available at:

https://research.reading.ac.uk/changing-landscapes/walking-back-through-time-a-landscape-history-of-pathways/ (Accessed: 21 September 2020).

Prtak, E.J. 2019. Writing 'Herstory' from the Molly Cotton Archive: How Women's Careers impacted mid-20th Century Iron Age Studies. [Unpublished MA Dissertation]. Schoole of Archaeology, Classics and Egyptology: University of Liverpool.

Pryor, F. 2018. *Paths to the Past: Encounters with Britain's Hidden Landscapes*. London: Penguin Books.

Pyburn, K.A. 2008. Public Archaeology, Indiana Jones, and Honesty. *Archaeologies*. 4(2). pp. 201–204.

Quirke, S. 2010. *Hidden Hands: Egyptian Workforces in Petrie Excavation Archives, 1880-1924.* London: Duckworth.

Qureshi, S. 2011. *Peoples on Parade: Exhibitions, Empire, and Anthropology in Nineteenth-Century Britain*. London: University of Chicago Press.

Rączkowski, W. and Drzewiecki, M. 2008. Following O.G.S. Crawford Satellite Images and Field Archaeology in Sudan. In: Lasaponara R. and Masini N. 2008. *Advances on Remote Sensing for Archaeology and Cultural Heritage Management: Proceedings of the 1st International EARSel Workshop CNR, Rome.* Rome: Aracne Editrice. pp. 3-6.

Ratnapalan, L. 2008. E. B. Tylor and the Problem of Primitive Culture. *History and Anthropology*, 19(2). pp. 131–142.

Ray, C. 2020. The Pith Helmet: Perspectives on History. *Historians.* 23 September 2020. [Online]. Available at: https://www.historians.org/publications-and-directories/perspectives-on-history/october-2020/the-pith-helmet (Accessed: 16 August 2021).

Reich, K.H. 2003. Effects of Meditation on Respiration and the Temporal Lobes: An Exploratory and Meta-Analytic Study. *International Journal for the Psychology of Religion*. 13(2). pp. 141–142.

Reid, J.A. 1938. Some Notes on the Khalifa Abdullahi from Contemporary Sudanese Sources. *Sudan Notes and Records*. 21(1). pp. 207–211.

Reisner, G.A. 1918. Outline of the Ancient History of the Sudan Parts I, II and III, *Sudan Notes and Records*, 1(1), pp. 3–15.

Richards, M. 2017. Notes and Queries on Anthropology: Its Influence on Pacific Prehistoric Archaeology at the Turn of the 20th Century. *Journal of Pacific Archaeology*. 8(1) pp. 12-22.

Riffenburgh, B. 1994. *The Myth of the Explorer: The Press, Sensationalism, and Geographical Discovery*. Oxford: Oxford University Press.

Riggs, C. 2014. *Unwrapping Ancient Egypt*. London: Bloomsbury.

Riggs, C. 2016. Photography and Antiquity in the Archive, or How Howard Carter Moved the Road to the Valley of the Kings. *History of Photography*. 40 pp.267-282.

Riggs, C. 2017. Shouldering the Past: Photography, Archaeology and Collective Effort at the Tomb of Tutankhamun. *History of Science*. 55(3) pp. 336-363.

Riggs, C. 2018. Loose Bodies: Reserve Collections, Curatorial Reservations and the Ancient Egyptian Dead. In: Brusius, M. and Singh, K., eds. 2018. *Museum Storage and Meaning: Tales from the Crypt.* London: Routledge. pp.253-262.

Riggs, C. 2019. *Photographing Tutankhamun: Photography, History: History, Photography.* London: Bloomsbury.

Riley, D.N. 1987. *Air Photography and Archaeology*. London: Duckworth.

Riley, D.N. 1996. *Aerial Archaeology in Britain* [2nd ed]. Princes Risborough: Shire.

Riske, G. 2019. The rise and popularity of British Nature Writing: an interview with Pippa Marland. *Land Lines: British Nature Writing, 1789-2014*, 20 August 2019. [Blog]. Available at: https://landlinesproject.wordpress.com/2019/08/20/the-rise-and-popularity-of-british-nature-writing-an-interview-with-pippa-marland-by-gunhild-riske/ (Accessed: 8 October 2019).

Rivière, P. 2009 [2007]. *A History of Oxford Anthropology.* New York: Berghahn Books.

Rivière, P. 2014. General Pitt-Rivers and the Evolutionist Anthropologists. *Museum History Journal*. 7(2). pp. 155–167.

Robertshaw, P. 2000. Sibling Rivalry? The Intersection of Archaeology and History, *History in Africa*, 27, pp. 261–286.

Robinson, M. 2015. Manliness and Exploration: The Discovery of the North Pole, *Osiris*, 30(1), pp. 89–109.

Rolandsen, Ø.H. and Leonardi, C. 2014. Discourses of Violence in the Transition from Colonialism to Independence in Southern Sudan, 1955–1960, *Journal of Eastern African Studies*, 8(4), pp. 609–625.

Rolston, W.E. 1908. Neolithic Dew-ponds and Cattle-ways, *Nature*, 77(1994), pp. 245–245.

Rose, G. 2000. Practising Photography: An Archive, A Study, Some Photographs and A Researcher, *Journal of Historical Geography*, 26(4), pp.555-571.

Robert Mill, H. 1896. Proposed Geographical Description of the British Islands Based on the Ordnance Survey, *The Geographical Journal*, 7(4), pp. 345–256.

Roberts, J. 2017. Dressing the Part [Unpublished Paper]. Archives and Rabbit Holes: Histories of Archaeology Research Network Conference, UCLan. 3 November 2017.

Roe, F.G. 1929. The 'Wild Animal Path' Origin of Ancient Roads, *Antiquity*, 3(11), pp. 299–311.

Royal Collection Trust [N.D.] Omdurman: Charles Neufeld (1856-1918) in jibba and chains and a fellow prisoner in Khartoum 1898. RCIN2501889 [Scan of a gelatin silver print from album compiled by Francis Gregson]. Available at: https://www.rct.uk/collection/2501889/omdurman-charles-neufeld-1856-1918-in-jibba-and-chains-and-a-fellow-prisoner (Accessed: 12 January 2020).

Royle, T. 2016. *The Kitchener Enigma: The Life and Death of Lord Kitchener of Khartoum, 1850-1916*. Stroud: The History Press.

Rudy, K.M. 2010. Dirty Books: Quantifying Patterns of Use in Medieval Manuscripts Using a Densitometer. *Journal of Historians of Netherlandish Art*. 2(1-2). pp.1-44.

Ryan, J. 1997. *Picturing Empire: Photography and the Visualisation of the British Empire.* London: Reaktion.

Saggar, S.A. 2019. Explore. *Decolonial Dictionary*. 21 August 2019. [Blog]. Available at: https://decolonialdictionary.wordpress.com/ (Accessed: 17 November 2019).

Saggar, S.A. 2019. Discovery. *Decolonial Dictionary*. 01 July 2019. [Blog]. Available at: https://decolonialdictionary.wordpress.com/ (Accessed: 17 November 2019).

Said, E. 1978. *Orientalism.* New York: Pantheon Books.

Saint-Amour, P.K. 2011. Applied Modernism: Military and Civilian Uses of the Aerial Photomosaic, *Theory, Culture & Society*, 28(7–8), pp. 241–269.

Sanders, E.R. 1969. The Hamitic Hypothesis; Its Origin and Functions in Time Perspective, *The Journal of African History*, 10(4), pp. 521–532.

Sanderson, G.N. 1964. Sudan Notes and Records as a Vehicle of Research on Sudan. *Sudan Notes and Records*. 45. pp. 164–172.

Santos, P.M. 2016. Crossed Gazes Over an Old City: Photography and the Experientation of a Heritage Place. *International Journal of Heritage Studies*. 22(2). pp.131-144.

Saunders, P. 2014. 'The Choicest, Best-Arranged Museums I Have Ever Seen' The Pitt-Rivers Museum, Farnham, Dorset, 1880s–1970s, *Museum History Journal*, 7(2), pp. 205–223.

Schlanger, N. 2002. Ancestral Archives: Explorations in the History of Archaeology, *Antiquity*, 76(291), pp.127-131

Schlanger, N. 2004. The Past is in the Present. On the History and Archives of Archaeology, *Modernism/Modernity,* 11(1), pp.165-167.

Schlanger, N. 2011. Stephen Quirke. Hidden hands: Egyptian workforces in Petrie excavation archives, 1880–1924. x+334 pages, 40 illustrations. 2010. London: Duckworth; 978-0-7156-3904-7 paperback £18., *Antiquity*, 85(327), pp. 302–303.

Schlanger, N. and Nordbladh, J. 2008. *Archives, Ancestors, Practices: Archaeology in the Light of its History*. New York: Berghahn Books.

Schofield, J. ed. 2011. *Great Excavations: Shaping the Archaeological Profession*. Oxford: Oxbow Books.

Schwartz, J. M. and Cook, T. 2002. Archives, Records and Power: The Making of Modern Memory, *Archival Science*, 2, pp. 1-19.

Schwartz, J.M. and Ryan, J. 2003. *Picturing Place: Photography and the Geographical Imagination*. London: IBTauris.

Schwartz, M.S. 2019. Harvard Profits from Photos of Slaves, Lawsuit Claims. *National Public Radio*. 21 March 2019. Available at: https://www.npr.org/2019/03/21/705382289/harvard-profits-from-photos-of-slaves-lawsuit-claims (Accessed: 26 July 2021).

Sealy, M. 2019. *Decolonising the Camera: Photography in Racial Time*. London: Lawrence and Wishart.

Shanks, M., 1992. *Experiencing the past : on the character of archaeology*, London: Routledge.

Shanks, M. 1997. Photography and Archaeology. In: Molyneaux, B. ed. 1997. *The Cultural Life of Images: Visual Representation in Archaeology.* London: Routledge, pp.73-104.

Shanks, M. 2016. *Re-constructing Archaeology: Theory and Practice*. London: Routledge.

Shanks, M. and Svabo, C. 2013. Archaeology and Photography: A Pragmatology. In: A. González-Ruibal ed. 2013. *Reclaiming Archaeology: Beyond the Tropes of Modernity*, New York: Routledge, pp. 89-102.

Shaw, N. 1925. *The Weather Map.* London: Meteorological Office.

Shaw, W.M.K. 2003. *Possessors and Possessed: Museums, Archaeology, and the Visualization of History in the Late Ottoman Empire*. Berkeley: University of California Press.

Sheail, J. 1981. *Rural Conservation in Inter-War Britain*. Oxford: Oxford University Press

Shellam, T. *et al.* 2016. Brokering in Colonial Exploration: Biographies, Geographies and Histories. In Nugent, M. *et al.* eds., 2016. *Brokers and Boundaries: Colonial Exploration in Indigenous Territory.* Acton, ACT: ANU Press, pp. 1–14.

Shepherd, N. 2011 [1977]. *The Living Mountain: A Celebration of the Cairngorm Mountains of Scotland.* Aberdeen: Aberdeen University Press.

Shepherd, N. 2003. 'When the hand that holds the trowel is black…': Disciplinary Practices of Self-Representation and the Issue of 'Native' Labour, *Journal of Social Archaeology,* 3, pp. 334-352.

Shepherd, N. 2015. *The Mirror in the Ground: Archaeology, Photography and the Making of a Disciplinary Archive*. Johannesburg: Jonathan Ball Publishers.

Shinnie, M., 1954. *A short history of the Sudan up to A.D. 1500*, Khartoum: Sudan Antiquities Service.

Shinnie, P. 1951. Abu Geili. By O.G.S. Crawford and F.Addison. Saqadi and Dar el Mek. By F. Addison. Oxford University Press for Wellcome Trustees. 182 pp. 87 Plates. £2 10s, *Antiquity*, 25(99), pp.161-163.

Shinnie, P.L. 1954. *Medieval Nubia*. Khartoum: Sudan Antiquities Service.

Shinnie, P.L. 1955. *Excavations at Soba*. Khartoum: Sudan Antiquities Service.

Shohat, E. 1991. Imaging Terra Incognita: The Disciplinary Gaze of Empire, *Public Culture*, 3(2), pp. 41-70.

Simmons, H.C. 1969. *Archaeological Photography.* London: University of London Press.

Singh, K. and Brusius, M. 2018. *Museum Storage and Meaning: Tales from the Crypt*. London: Routledge.

Skeates, R. and Day, J. 2020. *The Routledge Handbook of Sensory Archaeology*. Abingdon: Routledge.

Skelcher, M. & Durrant, C. 2006. *Edith Pretty: From Socialite to Sutton Hoo.* Leiston: Leiston Press.

Slatin, R.C., 1898. *Fire and sword in the Sudan : a personal narrative of fighting and serving the Dervishes, 1879-1895* Popular., London: E. Arnold.

Smiles, S. 2005. Thomas Guest and Paul Nash in Wiltshire: Two Episodes in the Artistic Approach to British Antiquity. In: Smiles, S. and Moser, S. *eds.,* 2005. *Envisioning the Past: Archaeology and the Image*. Oxford: Blackwell Publishing, pp.133-157.

Smiles, S. and Moser, S. 2005. *Envisioning the Past: Archaeology and the Image, New Interventions in Art History.* Oxford: Blackwell.

Smith, C. 2018. J.B. Ward-Perkins, The BSR and the Landscape Tradition in Post-War Italian Archaeology, *Papers of the British School at Rome*, 86, pp. 271–292.

Smith, L.T. 2012. *Decolonizing Methodologies: Research and Indigenous Peoples* [2nd ed]. London: Zed Books.

Smith, O. 2019. Introduction: Photography and Landscape. *Photographies*. 12(2). pp.137–142.

Smith, O. 2019b. The Reality of the Place Where We Live. *Photographies*. 12(2). pp. 143–153.

Smith, P.J. 1997. Grahame Clark's New Archaeology: The Fenland Research Committee and Cambridge Prehistory in the 1930s, *Antiquity*, 71(271), pp.11-30.

Smith, P.J. 2007. Kitty Hauser. Shadow Sites: Photography, Archaeology, and the British Landscape 1927-1955. xii+314 pages, 120 illustrations. 2007. Oxford: Oxford University Press; 978-0-19-920632-2 hardback £ 65., *Antiquity*, 81(314), pp. 1110–1111.

Smith, P.J. 2009. *A 'Splendid Idiosyncrasy': Prehistory at Cambridge 1915-50*. Oxford: Archaeopress.

Smith, S.P. 2019. Aestheticising Empire: The Colonial Picturesque as a Modality of Travel, *Studies in Travel Writing*, 23(3), pp. 280–297.

Smyth, R. 2019. Nature Writing's Fascist Roots. *New Statesman.* 3 April 2019. [Online]. Available at: https://www.newstatesman.com/culture/books/2019/04/eco-facism-nature-writing-nazi-far-right-nostalgia-england (Accessed: 8 July 2019).

Solecki, R.S. 1970. Flights into Yesterday: The Story of Aerial Archaeology, Review, *American Anthropologist*, 72(6), pp. 1539–1540.

Solnit, R. 2014. *Wanderlust: A History of Walking.* London: Granta.

Sontag, S. 1978. *On Photography*. London: Penguin Books.

Spivak, G.C. 2021. *An Aesthetic Education in the Era of Globalization*. Cambridge, MA: Harvard University Press.

St Joseph, J.K.S. 1976. Air Reconnaissance of Roman Scotland, 1939-75, *Glasgow Archaeological Journal*, 4(1), pp. 1–28.

St. Joseph, J.K.S. 1981. *Air Photography and Archaeology: Achievements and Prospects*. Amsterdam: Kroon-voordracht, Vijfde Kroon-Voordracht behouden voor de Stichting Nederlands Museum voor Anthropologie en Praehistorie te Amsterdam.

Starkey, J. 2001. Perceptions of the Ababda and Bisharin in the Atbai, *Sudan Studies,* 26, pp.25-43.

Starkey, P. and Starkey, J. 2001. *Travellers in Egypt*. London: Tauris Parke Paperbacks.

Steer, K.A. 1953. Archaeology in the Field, by O.G.S. Crawford, *Antiquity*, 27(105), pp. 50-51.

Steevens, G.W. 1898. *With Kitchener to Khartum.* Edinburgh: William Blackwood and Sons.

Stephen, J.W. and Morgan, C. 2014. Faces of Archaeology: A Photographic Portrait Study from the Seventh World Archaeological Congress. *Archaeologies*. 10(2). pp. 194–206.

Sterling, C. 2019. *Heritage, Photography and the Affective Past*. London: Routledge.

Sterling, K. 2015. Black Feminist Theory in Prehistory, *Archaeologies*, 11(1), pp. 93–120.

Stevenson, A.E. 2019. *Scattered Finds: Archaeology, Egyptology and Museums*. London: UCL Press.

Stevenson, A. 2020. The Archival Record of W.M.F. Petrie's 1894-5 Excavations in the Predynastic cemeteries of Naqada. In: Stevenson, A and van Wetering, J, eds., 2020. *The Many Histories of*

Naqada. Archaeology and Heritage in an Upper Egyptian Region. London: Golden House Publications.

Stevenson, A. 2021. Circulation as Negotiation and Loss: Egyptian Antiquities from British Excavations 1880-Present. In: Driver, F. and Nesbitt, M. and Cornish C., eds., 2021. *Mobile Museums in Circulation.* London: UCL Press, pp. 261–282.

Stevenson, A., Libonati, E., and Baines, J. 2017. Introduction—Object Habits: Legacies of Fieldwork and the Museum, *Museum History Journal*, 10(2), pp. 113–126.

Stichelbaut, B. ed. 2009. *Images of Conflict: Military Aerial Photography and Archaeology*. Newcastle-upon-Tyne: Cambridge Scholars Publisher.

Stoddart, S. and Malone, C. 2002. Editorial, *Antiquity,* 76(294), pp.915-924.

Stoler, A.L. 2002. Colonial Archives and the Arts of Governance. *Archival Science*. 2(1). pp.87–109.

Stoler, A.L. 2010. *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense.* Princeton: Princeton University Press.

Stone, P. *et al.* 2018. *The Palgrave Handbook of Dark Tourism Studies.* London: Palgrave Macmillan.

Stone, S. 2021. *The Dig* [Film]. Netflix. Available at: https://www.netflix.com/watch/81167887?trackId=13752289&tctx=0%2C0%2Cd6cbb7b9bd3976a9e6bff47432eb14e6094924b5%3A485bb3357bec3147aaab399e4ff5cd14592c6127%2Cd6cbb7b9bd3976a9e6bff47432eb14e6094924b5%3A485bb3357bec3147aaab399e4ff5cd14592c6127%2Cunknown%2C (Accessed: 29 January 2021).

Stout, A. 2008. *Creating Prehistory: Druids, Ley-Hunters and Archaeologists in Pre-War Britain.* Oxford: Blackwell.

Sultan, A.J.M. [n.d.] *When Fieldwork Breaks Your Heart*. [Podcast]. Society for Cultural Anthropology. Available at: https://culanth.org/fieldsights/when-fieldwork-breaks-your-heart (Accessed: 25 July 2019).

Sumartojo, S. 2018. *Atmospheres and the Experiential World: Theory and Methods.* London: Routledge

Sutherland, T. 2017. Archival Amnesty: In Search of Black American Transitional and Restorative Justice, *Journal of Critical Library and Information Studies,* 1(2), pp.1-23.

Sutton, D. 2009. *Photography, Cinema, Memory: The Crystal Image of Time*. Minneapolis: University of Minnesota Press.

Swain, H. 1998. *A Survey of Archaeological Archives in England*. London: Museums and Galleries Commission.

Swain, H. 2007. *An Introduction to Museum Archaeology*. Cambridge: Cambridge University Press.

Swain, H. 2012. Archive Archaeology. In: R., McDavid, C. & Carman, J. eds., 2012. *The Oxford Handbook of Public Archaeology*. Oxford: Oxford University Press.

Tagg, J. 1993. *The Burden of Representation: Essays on Photographies and Histories.* Minneapolis: University of Minnesota Press.

Takiff, H.A., Sanchez, D.T. and Stewart, T.L. 2001. What's in a Name? the Status Implications of Students' Terms of Address for Male and Female Professors, *Psychology of Women Quarterly*, 25(2), pp. 134–144.

TallBear, K. 2014. Standing With and Speaking as Faith: A Feminist-Indigenous Approach to Inquiry, *Journal of Research Practice*, 10(2), pp. 17-23.

Taylor, B. 1985. One Hundred Years of the Hampshire Field Club. *Proceedings of the Hampshire Field Club.* 41. pp.5-20.

Taylor, B. 1995. Amateurs, Professionals and the Knowledge of Archaeology. *The British Journal of Sociology*. 46(3). pp. 499–508.

Telegraph, The. 2011. Unseen Photographs of 1939 Excavation of Suton Hoo Discovered [Online]. *The Telegraph.* 1 February 2011. Available at: https://www.telegraph.co.uk/news/uknews/8292937/Unseen-photographs-of-1939-excavation-of-Sutton-Hoo-discovered.html (Accessed: 7 April 2019).

Thawley, J.E. 1973. Flights Into Yesterday: The Story of Aerial Archaeology. By Leo Deuel, *Archaeological Journal*, 130(1), pp. 310–310.

Theobald, A.B. 1950. The Khalifa Abdallahi, *Sudan Notes and Records*, 31(2), pp. 254–273.

Thesiger, W. 2004. *A Life in Pictures*. London: HarperCollins.

Thévoz, S.A. 2018. *Club Government: How the Early Victorian World was ruled from London Clubs.* London: IBTauris.

Thomas, A. 2019. Duration and Representation in Archaeology and Photography. In: McFadyen, L. and Hicks, D. eds., 2019. *Archaeology and Photography: Time, Objectivity and Archive*. London: Bloomsbury Visual Arts, pp.117-137.

Thomas, E. 1916. *The Icknield Way.* London: Constable.

Thomas, R. 1993. *The Imperial Archive: Knowledge and the Fantasy of Empire.* London: Verso.

Thomas, J. 1993. The Politics of Vision and the Archaeologies of Landscape. In: Bender, B. ed., 1993. *Landscape: Politics and Perspectives*. Oxford: Berg, pp. 19–48.

Thomas, J. 1996. *Time, Culture and Identity: An Interpretive Archaeology*. London: Routledge.

Thomas, J. 2004. *Archaeology and Modernity*. London: Routledge.

Thomas, J. 2008. On the Occularcentrism of Archaeology. In: Thomas, J. and Jorge, V.O. 2008. *Archaeology and the Politics of Vision in a Post-Modern Context.* Newcastle upon Tyne: Cambridge Scholars Publishing, pp. 1-14.

Thomas, J. and Jorge, V.O. 2008. *Archaeology and the Politics of Vision in a Post-Modern Context.* Newcastle upon Tyne: Cambridge Scholars Publishing.

Thompson, J. 1988. *The East: Imagined, Experienced, Remembered: Orientalist Nineteenth Century Painting*. Dublin: National Gallery of Ireland.

Thornton, A. 2006. Explorations in the Desert: The Photographic Collection of George and Agnes Horsfield, *Papers from the Institute of Archaeology*, 17(0), pp. 93–100.

Thornton, A. 2018. *Archaeologists in Print: Publishing for the People*. London: UCL Press.

Thornton, A. and Perry, S. 2011. Collection and Production: The History of the Institute of Archaeology through Photography. *Archaeology International*. 13(13-14) pp.101–107.

Thurnell-Read, T. and Casey, M.E. 2014. *Men, Masculinities, Travel and Tourism*. Basingstoke: Palgrave Macmillan.

Tilley, C. 1993. Art, Architecture, Landscape. In: Bender, B. 1993. *Landscape: Politics and Perspectives*. London: Berg. pp. 49–84.

Tilley, C. 1994. *A Phenomenology of Landscape: Paths, Places and Monuments*. Oxford: Berg.

Tilley, C. 2017. *Landscape in the Longue Duree*. London: UCL Press.

Tilley, C. and Cameron-Daum, K. 2017. *An Anthropology of Landscape: The Extraordinary in the Ordinary.* UCL Press: London.

Todd, Z. et al. 2016. *Decolonising Archives* [Online]. *L'Internationale Online.* Available at: https://e-artexte.ca/id/eprint/30628/1/03-decolonisingarchives_pdf-final.pdf (Accessed: 20 December 2021).

Török, L. 1997. *Meroe City, an Ancient African Capital: John Garstang's Excavations in the Sudan*. London: Egypt Exploration Society.

Tosh, J. 2016. *Manliness and Masculinities in Nineteenth-Century Britain: Essays on Gender, Family, and Empire*. London: Routledge.

Toye, F. 1950. *For What we have Received: An Autobiography.* London: Heinemann.

Trachtenberg, A. 1980. *Classic Essays on Photography*. New Haven, Conn: Leete's Island Books.

Trigger, B.G. 1984. Alternative Archaeologies: Nationalist, Colonialist, Imperialist, *Man*, 19(3), pp. 355–370.

Trigger, B.G. 1994. Paradigms in Sudan Archaeology, *The International Journal of African Historical Studies*, 27(2), pp. 323–345.

Trigger, B.G. 2006. *A History of Archaeological Thought*. [2nd ed]. Cambridge: University Press.

Trouillot, M. R. 2015. *Silencing the Past: Power and the Production of History*. Boston: Beacon Press.

Troutt Powell, E. 2003. *A Different Shade of Colonialism: Egypt, Great Britain, and the Mastery of the Sudan*. Berkeley: University of California Press.

Tsing, A. 2013. Sorting out Commodities: How Capitalist Value is Made through Gifts, *HAU Journal of Ethnographic Theory*, 3(1), pp. 21–43.

Tucker, J. 2005. *Nature Exposed: Photography as Eyewitness in Victorian Science*. Baltimore: Johns Hopkins University Press.

Turner, G. 2016. A Walk Through the Building. In: *New Bodleian: Making the Weston Library.* Oxford: Bodleian Library in Association with WilkinsonEyre and Mace. pp.124-163.

Turner, G. 2016. Materials and Detailing in the Weston Library. In: *New Bodleian: Making the Weston Library.* Oxford: Bodleian Library in Association with WilkinsonEyre and Mace. pp.176-191.

Tuttle, B. 2020. Margaret B.E. Shinnie [Blog]. *Trowelblazers.* 10 October 2020. Available at: https://trowelblazers.com/margaretshinnie/ (Accessed: 8 July 2021).

Tuttle, B. 2019. A Trip to the Zoo: Colonial Sightseeing and Spectacle in Sudan (1901–1933), *Journal of Tourism History*, 11(3), pp.217-242.

Tyack, G. 2016. A Brief History of the Bodleian. In: *New Bodleian: Making the Weston Library.* Oxford: Bodleian Library in Association with WilkinsonEyre and Mace. pp.40-47.

Urban, M. 2005. *Generals: Ten British Commanders who Shaped the World*. London: Faber and Faber.

Valtorta, R. 2019. Photography and Landscape in Italy in the 1980s. *Photographies*. 12(2). pp.155–175.

Van Dyke, R.M., and Alcock, S.E. 2003. *Archaeologies of Memory*. Oxford: Blackwell.

Van der Leeuw, S.E., and McGlade, J. 1997. *Time, Process, and Structured Transformation in Archaeology*. London: Routledge.

Van Reybrouck, D. and Jacobs, D. 2006. The Mutual Constitution of Natural and Social Identities During Archaeological Fieldwork. In: Edgeworth, M.ed., 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations.* Oxford: AltaMira Press, pp.33-44.

Van Tilburg, J.A. 2002. O.G.S. Crawford and the Mana Expedition to Easter Island (Rapa Nui), 1913-1915, *The Journal of the Polynesian Society*, 111(1), pp.65–77.

Van Wijngaarden, G. J. 2021. Archaeology of Troy: The Archaeology of Archaeology [Unpublished Paper]. *Greek Archaeology Seminar*, University of Oxford. 29 April 2021.

Vaughan, L. 2018. *Mapping Society: The Spatial Dimensions of Social Cartography.* London: UCL Press.

Vergunst, J.L. and Ingold, T. eds. 2016. *Ways of Walking*. London New York: Routledge.

Vezzadini, E. 2015. Setting the Scene of the Crime: The Colonial Archive, History, and Racialisation of the 1924 Revolution in Anglo-Egyptian Sudan, *Canadian Journal of African Studies,* 49(1), pp. 67–93.

Virilio, P. 2000. *War and Cinema: The Logistics of Perception.* London: Verso.

Voll, J. 2016. Lost Nationalism: Revolution, Memory and Anti-colonial Resistance in Sudan, *Canadian Journal of African Studies,* 50(2), pp. 337–339.

Vonnegut, K. 1991. *Slaughterhouse 5*. New York: Vintage Publishing.

Vsick, P. 2001. W.J. Bankes' Collection of Drawings of Egypt and Nubia. In: Starkey, P. and Starkey, J. eds., 2001. *Travellers in Egypt*. London: Tauris Parke Paperbacks, pp. 51–60.

W—, G.T. 1934. The Drama of Weather, *Nature*, 133(3351), pp. 83–84.

Walker, A. 1992. We Alone. *Her Blue Body Everything We Know: Earthling Poems, 1965-1990*. London: Women's Press.

Wallace, J. 2004. *Digging the Dirt: The Archaeological Imagination.* London: Duckworth.

Walsham, A. 2016. The Social History of the Archive: Record-Keeping in Early Modern Europe, *Past & Present*, 230(11), pp. 9–48.

Ward, C. 2016. The Archaeological Potential of Durham University's Sudan Archive, *Antiquity*, 90(354), pp.1-5.

Warrior, C. 2018. Home From Home: Memory and History, Families and Museums. In: Brusius, M. and Singh, K. eds. 2018. *Museum Storage and Meaning: Tales From the Crypt.* London: Routledge. pp.131-139.

Watkins, A. 1911. *Photography, its Principles and Applications*. England: Constable.

Watkins, A. 1927. *The Ley Hunters Manual*. Wellingborough: Turnstone Press Limited.

Watkins, A. and Macfarlane, R. 2015. *The Old Straight Track: Its Mountains, Beacons, Moats, Sites and Mark Stones*. London: Head of Zeus.

Weems, J. 2012. Wings over the Andes: Aerial Photography and the Dematerialization of Archaeology Circa 1931. In: Pillsbury, J. *ed.* 2012. *Past Presented: Archaeological Illustration and the Ancient Americas.* Harvard: Dumbarton Oaks, pp. 319-354.

Weinthal, L. 1922. *Fascinating Egypt and the Sudan*. London: A. Reid & Son.

Weiss, J. 2018. Citation is a Gift: 'Punking' Accounting in #hautalk [Blog]. *Footnotes*. 7 July 2018. Available at: https://footnotesblog.com/2018/07/07/guest-post-citation-is-a-gift-punking-accounting-in-hautalk/ (Accessed: 22 February 2019).

Wellcome Library. [N.D]. A Day at Gebel Moya, Season 1912-13. [Digitized Archival Footage]. Available at: https://wellcomecollection.org/works/zd8ptp49 (Accessed: 10 July 2019).

Wells, L. 2019. Hidden Histories and Landscape Enigmas, *Photographies*, 12(2), pp.177–193.

Werbner, R.P. 1998. *Memory and the Postcolony: African Anthropology and the Critique of Power*. London: Zed Books.

Wingate, F.R. 1918. Foreword, *Sudan Notes and Records*, 1(1). pp. 1–2.

Witcher, R. 2019. Editorial. *Antiquity*. 93(369). pp. 563–572.

Wheeler, M. 1954. *Archaeology From the Earth*. Clarendon Press: Oxford.

Wheeler, M. 1954b. Foreword. In: Cookson, M.B. 1954. *Photography for Archaeologists.* London: Max Parrish, pp.5.

Wheeler, M. 1958. Crawford and Antiquity, *Antiquity*, 32(125), pp. 3-4.

Whitehouse, H. 2009. *Ancient Egypt and Nubia in the Ashmolean Museum*. Oxford: The Ashmolean.

Whitrow, G.J. 1980. *The Natural Philosophy of Time*. Oxford: Clarendon Press.

Wickstead, H. 2017. "Wild Worship of a Lost and Buried Past": Enchanted Archaeologies and the Cult of Kata, 1908–1924, *Bulletin of the History of Archaeology,* 27, pp. 1-18.

Wickstead, H. 2019. Cults of the Distribution Map: Geography, Utopia and the Making of Modern Archaeology. In: Gillings, M. et al. eds., 2019. *Re-mapping Archaeology: Critical Perspectives, Alternative Mappings*. London: Routledge, pp. 37–72.

Wickstead, Helen & Barber, Martyn, 2012. A Spectacular History of Survey by Flying Machine. *Cambridge archaeological journal*, 22(1), pp.71–88.

Wickstead, H. and Barber, M. 2015. High on London: Aerial Archaeology and the 'Lost Gardens' of Seething Wells, *London Archaeologist*, 14, pp. 73–78.

Wilder, K.E. 2009. Photography and the Art of Science, *Visual Studies*, 24(2), pp. 163–168.

Williams-Freeman, J.P. 1909. Danebury. *Proceedings of the Hampshire Field Club*. (6)3. pp. 293–308.

Williams-Freeman, J.P. 1914. Notes on Roman Roads in the South of Hants, *Proceedings of the Hampshire Field Club and Archaeological Society*, 7(1), pp. 34–42.

Williams-Freeman, J.P. 1915. *An Introduction to Field Archaeology as Illustrated by Hampshire*. London: Macmillan.

Williams-Freeman, J.P. 1922. Annual Report of the Secretaries of the Hampshire Field Club Covering the Year 1920, *Proceedings of the Hampshire Field Club and Archaeological Society*, 9(2), pp. 288–293.

Williams-Freeman, J.P. 1928. Wessex from the Air, by O. G. S. Crawford and Alexander Keiller. With contributions by R. C. C. Clay and Eric Gardner. Oxford: at the Clarendon Press. 1928. pp. xii, 264; 50 plates and 61 sketch-maps and figures. 50s., *Antiquity*, 2(8), pp.508-510.

Williams-Freeman, J.P. 1932. Cross-Dykes. *Antiquity*. 6(21). pp.24-34.

Williams-Freeman, J.P. 1943. Early Days of the Hampshire Field Club, *Proceedings of the Hampshire Field Club and Archaeological Society*, 15(3), pp. 236–238.

Willink, R.J., Thomassen, J. and van Ommen, K. 2011. *The Fateful Journey: The Expedition of Alexine Tinne and Theodor Von Heuglin in Sudan (1863-1864)*. Amsterdam: Amsterdam University Press.

Willumson, G. 2004. Making Meaning: Displaced Materiality in the Library and Art Museum. In: Edwards, E. and Hart, J. eds. 2004. *Photographs, Objects, Histories: On the Materiality of Images.* London: Routledge, pp.65-83.

Wilson, D. 1992. Sutton Hoo: Pros and Cons. In: Farrel, R. and Neuman de Vegvor, C. eds. 1992. *Sutton Hoo: Fifty Years After*. Ohio: American Early Medieval Studies, pp.5-12.

Wilson, D.R. 1982. *Air Photo Interpretation for Archaeologists*. London: B.T.Batsford Ltd.

Wingfield, C. 2017. Collection as (Re)assemblage: Refreshing Museum Archaeology. *World Archaeology*. 49(5) pp.594-607.

Witcher, R. 2008. (Re)surveying Mediterranean Rural Landscapes: GIS and Legacy Survey Data. *Internet Archaeology.* 24. [Online]. Available at: https://doi.org/10.11141/ia.24.2 (Accessed: 15 November 2018).

Witcher, R. 2018. Editorial, *Antiquity*, 92(361), pp.1-6.

Witcher, R. 2019. Editorial, *Antiquity*, 93(369), pp.563–572.

Whitrow, G.J. 1980. *The Natural Philosophy of Time*. Oxford: Clarendon Press.

Wylie, A. 1992. Feminist Theories of Social Power: Some Implications for a Processual Archaeology. *Norwegian Archaeological Review*. 25. pp. 51–68.

Wylie, A. 2017. How Archaeological Evidence Bites Back: Strategies for Putting Old Data to Work in New Ways, *Science, Technology, & Human Values*, 42(2), pp. 203–225.

Yale, E. 2015. The History of Archives: The State of the Discipline, *Book History*, 18, pp. 332–359.

Yarrow, T. 2003. Artefactual Persons: The Relational Capacities of Persons and Things in the Practice of Excavation. *Norwegian Archaeological Review*. 36(1). pp.65-73.

Yarrow, T. 2006. Sites of Knowledge: Different Ways of Knowing an Archaeological Excavation. In: Edgeworth, M. 2006. *Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations.* Oxford*:* AltaMira Press. pp.20-32

Zahavi, D. 2018. *The Oxford Handbook of the History of Phenomenology*. Oxford: University Press

Zarankin, A. 2015. Archaeology of a Tear: Delusions in a Tent in a Stormy Day in Antarctica. In: Salerno, M., Zarankin, A. and Pellini, J.R. eds. *Coming to Senses. Topics in Sensory Archaeology*. Cambridge: Cambridge Scholars Publishing. pp.11-20.

Zimmerman, L.J. 2018. Changing Archaeology's 'Brand' would be Helpful. (Debate), *Antiquity*, 92(362), pp. 523–524.

Zuckerberg, D. 2018. *Not All Dead White Men: Classics and Misogyny in the Digital Age*. London: Harvard University Press.

Zylinska, J. 2010. On Bad Archives, Unruly Snappers and Liquid Photographs, *Photographies*, 3(2), pp. 139–153.