## CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTORY - PROBLEMS OF THE IRON AGE TECHNOLOGY AND CHRONOLOGY</td>
<td>1</td>
</tr>
<tr>
<td>2. EARLY EVIDENCE OF THE USE OF IRON IN INDIA</td>
<td>6</td>
</tr>
<tr>
<td>A. Iron in Association with the Painted Grey Ware Ceramic</td>
<td>6</td>
</tr>
<tr>
<td>(i) Hastinapur</td>
<td>6</td>
</tr>
<tr>
<td>(ii) Alamgirpur</td>
<td>7</td>
</tr>
<tr>
<td>(iii) Kausambi</td>
<td>7</td>
</tr>
<tr>
<td>(iv) Ujjain</td>
<td>8</td>
</tr>
<tr>
<td>B. Iron in the Megalithic Burials of South India</td>
<td>9</td>
</tr>
<tr>
<td>C. Iron in the post-chalcolithic-cum-pre-N.B.P. Ware Levels in West-central India</td>
<td>11</td>
</tr>
<tr>
<td>(i) Nagda</td>
<td>11</td>
</tr>
<tr>
<td>(ii) Prakash</td>
<td>12</td>
</tr>
<tr>
<td>(iii) Bahal</td>
<td>12</td>
</tr>
<tr>
<td>(iv) Eran</td>
<td>12</td>
</tr>
<tr>
<td>D. Iron in the Cairn-burials in Baluchistan and Persian and Baluch Makran on the Irano-Pakistan Borderlands</td>
<td>13</td>
</tr>
<tr>
<td>(i) General</td>
<td>13</td>
</tr>
<tr>
<td>(ii) Moghul Ghundai</td>
<td>13</td>
</tr>
<tr>
<td>(iii) Gatti</td>
<td>13</td>
</tr>
<tr>
<td>(iv) Jiwanri</td>
<td>13</td>
</tr>
<tr>
<td>(v) Nasirabad</td>
<td>13</td>
</tr>
<tr>
<td>(vi) Zangian</td>
<td>14</td>
</tr>
</tbody>
</table>
3. CHRONOLOGY AND THE SOURCES OF THE DIFFERENT CULTURAL LANDMARKS ASSOCIATED WITH IRON IN THEIR BEARING ON THE EVOLUTION OF IRON IN INDIA

A. General

B. Painted Grey Ware
   (i) Hastinapura
   (ii) Ujjain
      (a) Archaeological Evidence
      (b) Literary and Epigraphical Evidence on the History and Chronology of Ujjain
      (c) Conclusion
   (iii) Kausambi
      (a) Archaeological Evidence: the GhositiRama Monastery and the Palace
      (b) Literary Evidence on the Early History and Chronology of Kausambi in the Light of the Archaeological Evidence
      (c) Conclusion
   (iv) Views of Mortimer Wheeler and D.H. Gordon on the Chronology of the Painted Grey Ware

C. Chronology of the Post-chalcolithic-cum-pre-N.B.F. Ware Ironworks
   (i) General
   (ii) Tentative Chronological Scheme
   (iii) Archaeological Evidence at Nagda
   (iv) Evidence of Iron
   (v) Conclusion

D. Chronology of the Megaliths of South India and Cairn-Juinals
   (a) Introductory
(XIV)

(b) Chronology of the Neolithic-Chalcolithic Cultures in West and Central India and the Megaliths ... 75

(c) Cairn-burials in Baluch and Persian Makran and Baluchistan 76
   (i) General ... 76
   (ii) Cairn-burial Pottery and the Londo Ware and their Links with Iran ... 79
   (iii) Cairn-burials and Megaliths in upper Iran and South India 85
   (iv) Date of the Cairn-burials in Relation to the South Indian Megaliths ... 86
   (v) A comparison between the Iron Objects of the South Indian Megaliths and those of the Cairn burials 88

(d) Megalithic Remains in Other Parts of North India and Adjacent Border Regions ... 89
   (i) General ... 89
   (ii) Sind ... 90
   (iii) Delhi, Uttar Pradesh, Orissa and Rajasthan 90
   (iv) Kashmir, Ladakh and Tibet 91
   (v) Former North West Frontier Province of Undivided India, now in Western Pakistan ... 92

(e) Megaliths in Middle and North-East India Practised by Tribal People ... 92
   (i) General ... 92
   (ii) Neolithic Association 94
   (iii) Relationship with the Megaliths of South India 96

(f) Source of Megalithism in India - Divergent Views ... 99
   (i) Views of D.H. Gordon 99
(XV)

(ii) Views of R. Heine Geldern 101
(iii) Views of Walter Ruben 103
(iv) Views of Mortimer Wheeler 104
(a) General 104
(b) Megaliths and the Chalcolithic cultures 105
(c) Chronology 107
(v) Views of Haimendorf and the Linguistic and Racial Evidence on the Chronology of Megaliths in South India 111
(a) Views of Haimendorf 111
(b) Linguistic and Racial Evidence 113
(vi) Iron and the Megaliths of South India 115
(vii) Summary of the Arguments 118
(g) Conclusion 119

4. USERS OF THE PAINTED GREY WARE CERAMIC INTRODUCED IRON IN NORTH INDIA 123
A. General 124
B. Harappa civilization and the Aryans 124
(i) Geographical Extent 124
(ii) Architecture and Urban Life 124
(iii) Religion 125
(iv) Cultural Life 129
(v) Harappan Script 130
(vi) Disposal of the Dead 131
(vii) Racial and Linguistic Affinities 131
(viii) Chronological incompatibility between the Harappa Civilization and the Rigveda 132
C. Chalcolithic Cultures of Western India and Northern Deccan and the Aryans 133
(i) General 133
(b) Shahi-turza as the Source of the Painted Grey Ware  

(c) Use of the Painted Grey Ware in the Sarasvati-Drisadvati Valley in Bikaner, possibly before the Entry of the Aryans into the Ganga-Yamuna Plains  

(d) Possession by the 'conquerors' of weapons superior to those of the Harappans  

(e) Improbability of a retrograde Appeal to Weapons of Copper in Preference to Known ones of Bronze and even Iron proves the point  

(f) Source from which Iron was adopted  

B. Advent of Iron in the Ancient World  

(i) General  

(ii) Iraq (Mesopotamia)  

(iii) Syria  

(iv) Turkey (Asia Minor)  

(v) Palestine  

(vi) Crete  

(vii) Cyprus  

(viii) Egypt  

(ix) Greece  

(x) Iran and the Caucasus Region  

(a) Views of R. Ghirshman vis-a-vis those of C. Schaeffer in their Bearing on the Chronology and Source of Iron in Iran  

(b) Introduction of Iron in Iran owed itself to the Aryans  

C. Aryan Problem and the Iron Age in India  

(i) Aryan Problem in General  

(ii) Hittites and the Outlines of their History  

(iii) Mitanni and the Outlines of their History  

(iv) Aryan problem and Iran
(iI) Geographical Distribution 134
(iii) Stratigraphy 134
(iv) Chronological Considerations 134
(v) Iranian influences 135
(vi) Ethnic Movement 136
(vii) Links with the Painted Grey Ware Culture 137
(viii) Conclusion 138

D. Post-Harappan Cultures in the North-West of the Indo-Pakistan Subcontinent and the Aryans 139
(i) General 139
(ii) Cemetery 'H' 140
(iii) Shahi-tump 142
(iv) Jhukar 143
(v) Jhangar 145
(vi) Cairn-burials and the Londo Ware 146
(vii) Rana Ghundai IV and V 146
(viii) Trihni Ware 146

E. 'Copper Hoards' and the Aryans 148
(i) General - the views of B.B. Lal 148
(ii) Views of Heine-Geldern 150
(iii) Conclusion 156

F. Claims of the Scythians to the Introduction or popularization of Iron in India 156

G. Users of the Painted Grey Ware, who were among the first to use Iron in North India, and the Aryans 158

5. ADVENT OF IRON IN THE OLD WORLD AND THE MOVEMENT OF THE ARYANS 160
A. Introductory 160

(a) A probable Source from which the Painted Grey Ware was imbibed in its bearing on its Adoption of Iron 160
(v) Question of the Original Home of the Aryans: it lay in Central Asia 213

(vi) Date of the Aryan Immigration into India and of the composition of the Rigveda 228

(vii) Route of the Aryan Immigration into India

(viii) Aryans were acquainted with the use of iron before their immigration into India 233

6. LITERARY EVIDENCE ON THE USE OF IRON IN ANCIENT INDIA 239

7. EVIDENCE OF THE USE OF IRON IN INDIA IN THE EARLY HISTORICAL PERIOD AS REVEALED BY RECENT EXCAVATIONS 247

(i) General 248

(ii) Traces of Slag 248

(iii) Taxila 248

(iv) Hastinapura 249

(v) Rupar 250

(vi) Sisupalgarh 250

(vii) Nasik 252

(viii) Maheshwar and Navdatoli 253

(ix) Tripuri 254

(x) Nagda 254

(xi) Praksha 254

(xii) Bahal 255

(xiii) Sonpur 255

(xiv) Purana Qila, New Delhi (Indraprastha) 255

(xv) Jaugada 256

(xvi) Rajgir 256

(xvii) Magari 257

(xviii) Sambhar 257

(xix) Bairah 257

(xx) Bairat 258

8. NATURE OF THE EARLY IRON INDUSTRY AS DOCUMENTED AT UJJAIN 259