

Cor Notebaart 2012 *Metallurgical Metaphors in the Hebrew Bible*, Amsterdamse Cahiers voor Exegese van de Bijbel en zijn Tradities Supplement Series 9, Bergambacht: 2VM, ISBN 978-94-90393-06-9, pp iv + 369, USD33.00

Reviewed by Christopher J. Davey

Cornelis Wilhelmus Notebaart is a metallurgical engineer and researcher with lifetime of mineral dressing experience, he has a doctorate entitled, *Applications of mineral characterisation and process research to the development of beneficiation technology for the minerals industry*, (Technische Universiteit, Delft, 1988) and he has at least one patent. This volume is a further PhD dissertation supervised by Klaas Spronk at the Protestantse Theologische Universiteit; it presents a comprehensive awareness of current archaeo-metallurgical research and detailed knowledge of the Ancient Near East and its languages as they relate to the biblical text. Notebaart's stated definition for metallurgy is broad covering everything from extraction to production, but in practice also seems to include prospecting, the search for ore-bearing rock.

The first main chapter discusses the theory of metaphor from Aristotle to the cognitive linguists, Lakoff and Johnson. Notebaart's synthesis draws heavily on Kittay's semantic fields, or domains of source and target, and on Bjørndalen's conjunctive and disjunctive elements, which creates a tension or juxtaposition, not just simple parallels. Tension is important to Notebaart because it focusses the readers' attention and a degree of incongruity increases the effectiveness of the metaphor.

The next two chapters form the bulk of the book; the first is the section analysing some 37 metallurgical metaphors in the Masoretic text of the Old Testament and the second is a summary of current Ancient Near Eastern archaeo-metallurgy. Two smaller chapters on the metals trade and on metallurgy and religion, complete the analyses. The final sections include conclusions, abbreviations, references, a subject index, figures and maps, a summary in Dutch and curriculum vitae. An index of Hebrew terms would have been useful.

The analyses of the metaphors is comprehensive. The linguistic analysis of the text draws on Egyptian, Akkadian, Ugaritic, and Greek, the technical aspects of the metallurgical processes referred to are then discussed before the nature and meaning of the metaphor in its context is considered. The references Notebaart has used are the most recent scholarly works; there is no tacit reliance on the dated works of R.J. Forbes, as biblical scholars are inclined to do, or S.R. Driver metallurgists may do. Without apparent fear or favour Notebaart has pursued the most recent views on every aspect he has addressed.

The biblical passages considered are primarily from the prophets and Job. Many of the metaphors are straightforward alluding to metal properties such as purity or preciousness, but Job 28 is much more complex; the biblical passage is comparatively lengthy and involves a range of activities from prospecting and mining to processing and trading.

Jeremiah 6:27-30 is another elaborate metaphor referring to the complex process of silver refining. It is Notebaart's discussion of the text that will intrigue many readers. In Jeremiah 6, for example he accepts *בחון* as 'assayer', *נפח* as 'bellows', *צרון* as 'refiner', and *מבצר* as 'crucible' (cupel?). The metaphor, he explains, has a source domain of silver refining (cupellation) that fails because the silver is so impure that although excessive heat has scorched the bellows and all the lead has been used up, no refined silver was produced. The target domain is ancient Israel that is being said to have no faithful people (refinable silver content) left.

Job 28 is considered in its entirety to be a complicated metaphor. Notebaart follows recent versions such as the NIV for much of the text agreeing the *רוצא* means 'mine' and not smelter, but translates *זקק* as 'wash' rather than 'refine', referring to the sluicing of alluvial gold, *מעם-גר* as 'foreign workers' who 'open up shafts (*נחל*)', *ספיר* as 'lapis lazuli' not sapphire, *חלמיש* as 'hard rock' rather than flint, and *בצורות יארים* as 'mine galleries' deriving the meaning from Egyptian. The adoption of riverine Hebrew terminology to describe mine openings is significant, but also potentially confusing as *v 11* is often translated with reference to the damming of streams, but as Notebaart comments, in context it better describes alluvial mining, such as ground-sluicing, or the control of underground mine-water.

He believes that the imagery originated in the copper mines of the Faynan area, south of the Dead Sea, where he suggests ropes were used for shaft haulage to accord with *v 4* where miners are said to 'dangle' (*דלל*). The reference to 'foreign workers' supports those, such as the reviewer, who consider that ancient miners were often itinerate people skilled in mining and smelting, who moved between mining areas as politics, economics and resources allowed. Notebaart argues that the most elaborate and lengthy metaphor in Job 28 represents a 'bridge' between the three-speech cycles of Job and his friends and the speeches of God to Job. The discussion about the actual technical processes being described will be appreciated by many readers.

The detailed technical explanation of each metaphor leads to the second lengthy chapter summarising the current state of archaeo-metallurgical research in the Eastern Mediterranean. Few people have attempted this in recent years. The geology and metallurgical processes are described with chemical equations and the latest archaeological evidence is discussed. There is a growing trend to acknowledge the European – Eurasian primacy

in metallurgical development; Iran also needs to be kept in mind. The book's references include papers relating to these areas and it is probable that space limitations prevented greater coverage in the text. Anyone using this volume will have a sound grasp of the issues associated with ancient Levantine metallurgy.

The short chapter on trade begins with the Chalcolithic and draws on documentary sources, archaeological occurrences and metal analysis to trace significant trade connections until the first millennium. The final chapter deals with religion and metallurgy. The archaeological evidence is reviewed and more recent African experience described. Notebaart dismisses the Marxist exploitative models as tendentious, and he does not see the temple based metalworking going beyond the production of idols for religious reasons. The role of Sharman as retainers of metallurgical knowledge and as sponsors of technical processes is not considered.

Notebaart concludes that metallurgical process metaphors referred to in in the Old Testament are limited to silver refining, that is otherwise known as cupellation (Jer. 6:27-30, Is. 1:22, Ez. 22:18-22). This is a comparatively intricate process and he proposes that these texts indicate that it must have been reasonably well-known possibly because it was carried out in urban environments for the recycling of jewellery and the use of silver as a currency. Gold and copper processes, he suggests, were carried out nearer their remote sources and may have been less recognisable.

The mass of literary, historical and archaeo-metallurgical data and information in this volume is remarkable. Biblical scholars who have some technical training will find the book very useful. On the other side, archaeo-metallurgists will find the analysis of the terminology and its context enlightening, especially in relation to the history of silver metallurgy, which is so often eclipsed by the archaeology of copper and iron.

For people who understand metallurgical processes and have a respect for the Hebrew text this work will be enjoyable to read. Notebaart generally deals with the text as it is and does not force textual emendation to achieve a thoroughgoing meaning; these texts have a number of *hapax legomena*. Biblical scholars and archaeo-metallurgists alike will find this book useful for many years to come.

Martin Goodman, 2008 *Rome and Jerusalem: The Clash of Ancient Civilisations*, London: Penguin Books ISBN 978-03-75726-13-2, pp. 640, USD 25.

Reviewed by Anne E. Gardner

Martin Goodman, past Editor of *The Journal of Roman Studies* as well as the *Journal of Jewish Studies* and Professor of Jewish Studies at Oxford University was commissioned by Penguin Books to write *Rome and Jerusalem* subtitled *The Clash of Ancient Civilisations*. It has already received numerous very favourable reviews. The present one is no exception although, in the opinion of this reviewer, there is an aspect of the subject matter that requires further exploration.

Goodman's first stated aim is to question whether the Jewish War with Rome in 66-70CE and particularly the destruction of Jerusalem and its Temple were inevitable as many later interpreters have claimed. In the centuries that followed, Rome came to be regarded as the epitome of evil by Jews who were subject to measures that marginalised them in the Roman world and Goodman's second aim is to examine whether those measures were a direct result of the war. Thirdly, he inquires into the effect of the tension between Rome and the Jews upon relations between Christians and Jews. In order to pursue all these matters, Goodman's work extends to 639 pages, including endnotes and an index. It is divided into a prologue and three parts with a total of fourteen chapters plus an epilogue. An indication of their contents is provided here.

The Prologue provides a brief overview of the events of 66-70 CE from the available sources: the works of Josephus, the aristocratic Jewish historian, who fought in the war of 66-70 CE although he surrendered to the Romans prior to the end; letters found by the Dead Sea; coins minted by the Jewish rebels which witness their setting up (in their opinion) of a new state; the Histories of the Roman historian Tacitus and an extract from the later Church Father, Eusebius.

Part I entitled 'A Mediterranean World' is divided into three chapters. The first entitled, 'A Tale of Two Cities' highlights the geographical, environmental and architectural aspects of Rome and Jerusalem, both of which were at the height of their glory in the first century CE. Similarities abounded, although the foundation of each one's glory was different. Chapter 2, 'One World Under Rome' concerns the imposition of political unity throughout the Empire and the widespread nature of trade. The cultural background of the Empire was Greek. Goodman points out that Jews, whether in Jerusalem or elsewhere, partook of all these aspects and it was only on rare occasions that they felt unable to meet the demands of the Empire. Socially, Jewish dietary laws restricted the mixing of pious Jew and non-Jew although there are instances when that was overcome. Likewise, inter-marriage was possible if the non-Jew converted to Judaism. Chapter 3, entitled 'Diversity and Toleration' highlights from ancient written