The types of data collected and a generally usage-based approach to explanation inform Ding's discussion of key areas of the grammar such as lexical categories, which show a wide range of multifunctionality (pp. 72–87); a system of pragmatically based agentive marking with no grammaticalized syntactic pivot (pp. 146–55); the relational, deictic nature of directional orientation markers (pp. 109–14); the detailed discussion of topic and comment in the broader context of information structure (pp. 297–317), and in details about how speakers can mark *ad hoc* control for non-volitional verbs for pragmatic purposes (p. 240). The author's functional approach to these issues allows balance, and in-depth description of the grammatical constructions as they are used by speakers.

This work does have a few minor shortcomings. First, the examples lack information on which subset of the corpus they represent. This sometimes renders the reader uncertain as to which examples come from naturally occurring discourse, and which are from elicited translations. Second, loan words are not marked as such in the glossaries. Aside from the forms mentioned in earlier reviews, I find the following Tibetan loans:  $10^{12} \, \text{ma}^{12} \, \text{ma}^{12}$ 

These oversights do little to detract from an overall excellent grammar which will prove a useful resource for future historical-comparative work, and also as a model for linguists working on descriptive grammars.

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CAROLYN KYONGSHIN KOH CHOO:

*Traditional Korean Ceramics: A Look by a Scientist.*291 pp. Seoul: Designnanoom, 2016. ISBN 978 899759538 9. doi:10.1017/S0041977X17000702

The scientific study of Korean ceramics "only began in the 1980s, with Pamela Vandiver and Richard Newman in the United States, Nigel Wood in England and Kurt Hangst in Germany. At the end of the 1980s, such work began within Korea, at Chung-Ang University's Department of Scientific Study on Cultural Properties" (p. 14). The author of the present work is a US-trained scientist who taught and researched at Chung-Ang from 1974 to 2007.

Her original and highly informative study is structured, between a historical introduction and an epilogue introducing selected contemporary Korean ceramic artists, into chapters discussing plain ceramics (pure celadon and white porcelain in the author's terminology) and the subsequent practice of inlaid decoration using contrasting dark and light clays; buncheong ceramics decorated with white slip (ceramics made in the transitional period of the fourteenth and fifteenth centuries as Korea underwent a Confucianization of its culture and morality); and ceramics decorated

by painting colour on their surface, using iron-brown, copper-red and cobalt-blue pigments.

With Choo's background as a chemist, the book is a strong resource for the physical understanding of properties of Korean ceramics. Topics treated in detail include vitrification (pp. 56–61); ceramic science of Joseon porcelain shards (pp. 120–2 and 132–8); microstructural study of inlaid decoration (pp. 150–3); and sherds from the Gyeryongsan area where much iron painted buncheong ware was produced (pp 188–95). An insightful comparison of the compositional characteristics of buncheong ceramics with those of celadon and porcelain (pp. 202–7), explains differences in the bodies and glazes of the major ceramic types, noting that current understanding is founded upon thorough analysis of sherds from only 13 sites selected from hundreds that have been investigated in Korea to date. The need for more extensive comparative analysis and isolation of distinguishing features of wares from different kilns and periods of production is highlighted.

Of chemical elements whose variable amounts affect the appearance and qualities of the ceramics, Choo devotes discussion and presents tabulation of results for iron oxide, titanium dioxide, calcium oxide and phosphorus pentoxide among others. Sherds from the royal kilns of the Gwangju region, Gyeonggi province, that produced whiteware in the Joseon period, from regional white porcelain kilns, and from celadon kilns of the south-west and midland regions are all discussed. Further scientific analysis, focusing on painted sherds, appears at pp. 225–9, 244–6 and 260–5, this last discussing sherds with cobalt-blue painted decoration. There is a helpful commentary on the challenges of investigating the composition of cobalt pigment (p. 260) and a clear assertion that cobalt blue cannot be said ever to have been produced inside Korea, despite some scholars' suggestions to the contrary.

Threaded through the book's structure is a lucid aesthetic and literary narrative of the place of ceramics in Korean history. There are also numerous regional and international comparisons, with helpful reference to the renowned Sinan wreck of 1323, which was accidentally discovered by a Korean fisherman in 1975 and whose over 20,000 mainly Chinese celadon wares revealed the vast extent of East Asian maritime trade in ceramics in medieval times (pp. 68–78). The small number of Goryeo wares excavated from the wreck are illustrated (p. 69). Along with other astonishing underwater excavations off the south-west coast of Korea since the 1980s, these materials have greatly enriched scholars' understanding of Korean ceramic history.

Equally important have been numerous excavations undertaken at kiln sites across South Korea since the 1970s, often against the backdrop of rapid industrialization, and road building. Choo notes that in 1985, we knew of 185 kilnsites in the Gwangju complex. By 2003, 299 kilns had been identified in the same area.

Throughout the book, presentation of each instance of scientific analysis is preceded by the discussion of relevant kiln excavations, accompanied by comments on particular sites. The presentation of this data about ceramic excavation sites in one publication is a momentous achievement.

Establishing the chronology of the introduction of green glazed ceramics into Korea has been a controversial topic among Korean art historians: "The traditional understanding was that the southwestern kilns were founded [...] in the 9<sup>th</sup> century by maritime powers in charge of the trade routes between China, Korea, and Japan. However, an excavation of the midland areas in the 1980s and 1990s brought rise to the hypothesis that these kilns were founded by Goryeo power lords in the 10<sup>th</sup> century and that they preceded the southwestern kilns..." (p. 35). A stronger referencing framework would have been helpful for readers wishing to explore the contending theories more thoroughly. Each of the four chapters includes a "selected

bibliography" of about half a dozen titles, too few to allow the book to function adequately as springboard for further reading. Nonetheless, Choo's account of the issues that divide the supporters of different dates and times for the beginnings of celadon in Korea summarizes the arguments well and illustrates the so-called "halo foot" bowls whose shape and connections to dated Chinese ceramics are cited by scholars. These are a kind of plain celadon bowl with a low foot looking like the sun's halo, that bear strong resemblance to wares produced in the Yuezhou kilns of China.

The illustrations, in addition to scientific tables and microstructural and electron images, and maps, are of a very high quality. Pie charts help the reader to comprehend the proportions of different types of ceramics excavated at particular sites (p. 46, p. 177). Useful observations about regional variations in the practice of biscuit (preliminary) firing of Goryeo-period ceramics are made at p. 35. A pioneering, summative study with a strong experimental scientific focus, *Traditional Korean Ceramics* will be consulted by those who want to understand the unique qualities of Korean ceramics through the lens of scientific enquiry.

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AFRICA

LAWRENCE ROSEN:

Two Arabs, A Berber, and a Jew: Entangled Lives in Morocco. xxi, 363 pp. University of Chicago Press. £19.50. ISBN 978 0 226 31748 9. doi:10.1017/S0041977X17000714

Anthropologists seem to have a special need to write their memoirs to set the capstone on lives spent observing, listening and speculating. Otherwise, their legacies are evanescent, as history rolls on and reveals the vanity of thinking they can "get it right" for all times and places. Lawrence (Larry) Rosen is part of a special moment in the genealogy of modern Morocco anthropology. In 1963, a group of American graduate students led by Clifford Geertz and his then wife, Hildred (Hilly) Geertz came to Sefrou, about thirty miles from Fez, and turned it over, under, and inside out to uncover what made Moroccans tick. Fascinated by its seeming frozenness in time, by the warmth and receptivity of its people, by the lushness of its gardens and the buzz of its markets, they stayed for months and later returned often to take the temperature of the town and reconnect with old friends. In the process, they reshaped in fundamental ways how social scientists interpreted Morocco, along with other parts of the Arab world that showed similar properties and characteristics.

Rosen's gratitude to the Geertzes is clear at the outset, where he dedicates his memoir to them as "teachers, scholars, and friends", and even more at the end, where he gives thanks to Hilly, for showing him "how to do fieldwork", and to Cliff, for teaching him how to think through ascending scales of perception. Indeed, the imprint of Clifford Geertz's personality is evident everywhere in this book: in Rosen's striving for the rich, poetic language of the master, and in his search for those symbolic nuggets of experience that when cracked open, render denser meanings. The organization of the book is simple, with portraits of each of the four leading characters – all men, all denizens of the marketplace that Rosen once frequented – dissolving into more layered forms. On the surface,