available (Christian Urmi) for pronominal objects of all persons (p. 210). On the contrary, the geographical and historical distributions of NENA preterit forms with pronominal objects demonstrate that the intraconjugational object representation of all persons (*priqexle* 'he saved us') is an archaic feature and that the competing/complementary paradigm with prefixed *qam- | kem-* and extraconjugational prepositional objects, introduced by *l-* and used especially for 1st and 2nd person pronouns (*kempareqlan* 'he saved us'), is a relatively late development (see F. A. Pennacchietti, in *ZDMG* 144 [1994], listed in Napiorkowska's bibliography, and my article in *ARAM* 24 [2012]: 25–40). Both the creation of the *qam-*paradigm and the limitation of intraconjugational indexing of the object to 3rd person pronouns can be interpreted as structural developments linked to the "loss of ergativity": the *qam-* forms paradigmatically restore nominative-accusative alignment, while the occurrence of a split ergative feature, such as the intraconjugational object indexing by means of subject pronominal endings, is limited to the person that occupies a lower position in the animacy hierarchy.

The book is well written and reads easily, notwithstanding the technical nature of the contents. Layout and graphics are clear. I was able to detect only a few slip-ups: Payne (2005) instead of Payne (1997) (p. 6), "maker of the pl." for "marker of the pl." (p. 101), and Fassber for Fassberg (p. 199 n. 2). In the verb paradigms I am not sure whether *ptixen* should be *ptixten* as fem. sg. resultative participle + 1st person ending of the copula (p. 193) and *šudertit* should, in fact, be *šuderti* 'you (sg.f.) have sent me' (p. 211).

ALESSANDRO ME	NGOZZI
University of	TURIN

The Technique of Islamic Bookbinding: Methods, Materials and Regional Varieties. By KARIN SCHEPER. Islamic Manuscripts and Books, vol 8. Leiden: BRILL, 2015. Pp. xii + 428, illus. \$181, €140.

In this heavily illustrated volume, conservator Karin Scheper has offered a refined picture of the extant material evidence for the bookbinding techniques practiced in the Islamicate cultural areas during the manuscript age. While the wealth of technical detail presented is obviously of great benefit to conservators and bookbinding practitioners, it is also quite valuable for philologists, historians, codicologists, and, indeed, anyone relying on Islamic manuscripts as carriers of source content—textual, visual, or material.

Previous scholarship on Islamic bookbinding has addressed the descriptions of materials and techniques provided in each of the few known historical treatises and technical manuals in Arabic and Persian (Bosch 1961; Gacek 1990, 1991, and 1997; Porter 1992), elaborated classification schemes based on cover elements such as a flap or stamped or tooled ornaments (Weisweiler 1962; Déroche 1985), highlighted evidence for particular structural features and techniques as observed on a small scale (Baydar 2002; Rose 2010; Benson 2015), or relied on written and physical evidence to explore the codicological potential of structural features such as repairs (Kropf 2013).

By contrast, Scheper's substantial study is the first to attempt to resolve from a large manuscript corpus an expanded typology of classification based on structural binding features and their associated construction techniques and materials. This approach is novel in that it looks beyond the decorative elements that have drawn so much of the attention in the material study of Islamic bookbinding until now, and focuses instead on approaches to construction, covering, and board attachment via such elements as sewing, linings, endbands, and joints. Scheper has assessed these features for more than one thousand volumes from the Oriental collections of the Leiden University Library. As her volume's title suggests, her approach anticipates variety across time and space and attempts to resolve distinctive characteristics that may be associated with particular historical moments and particular locations.

The volume comprises six chapters and four appendices. In her introduction and opening chapter Scheper includes a much appreciated discussion of the research value of studying binding structures in the context of the material study of books and their manufacture. She briefly discusses the

challenges that must be addressed when attempting this type of study and introduces her own multifaceted approach, in which structural and technical evidence gathered during the physical examination (or "autopsy") of a selection of collection material now held in the Leiden University Library is subsequently linked with available catalogue data. The whole is then interpreted in the light of technical descriptions in historical sources and the secondary literature. Finally, reproductions of the structures and techniques are hand-crafted to verify or discount certain interpretations.

In chapter two Scheper presents an incredibly valuable detailed overview of the methods of construction she has encountered, copiously illustrated with diagrams and photographs. This chapter is highly recommended reading for all those working physically with Islamic manuscripts and would be quite appropriate for students of an introductory Islamic codicology course in particular. In chapter three Scheper delves more deeply into the published literature to engage the practical descriptions appearing in a selection of known historical treatises (specifically those available in English translation). Remarks in the secondary literature are also addressed, especially structural characterizations and the preliminary binding typology of François Déroche (2006: 256ff.).

In chapter four Scheper provides a detailed account of her approach to her survey of physical evidence, including the parameters of her corpus, included and excluded features, database structure, and approach to analysis; in the fifth chapter she presents a few of her tentative findings regarding discernable trends across time and space. The variation by chronology is far more compelling than the variation by geography given the composition of her corpus. The exception is for Southeast Asian manuscripts, which exhibit seemingly unique features such as the use of plaited plant fibre for boards and fringed endbands. Finally, Scheper recapitulates in chapter six the key findings of her survey and suggests avenues for future study. She also includes a profile of the repairs observed and quite an interesting comparative discussion of the structural features of a selection of Arabic script early printed books (pp. 359ff.).

The volume helpfully concludes with a glossary, a listing by shelfmark of the items of the corpus, a sample of the descriptive checklist employed in data collection, and a list of the items appearing in illustrations, along with an extensive bibliography and index.

The tremendous value of this contribution lies in the framework offered, the focus on structural elements, and the deeper engagement with the physical and written evidence through the hand-crafting of models that attempt to reproduce the features and techniques as observed and described. Especially valuable for anyone endeavoring to trace a manuscript's history, including those working with Islamic manuscripts as carriers of source texts, notes, and visual content, is the discussion of how to establish whether or not a binding is a manuscript's original one (pp. 38ff.). Of further value is the cogent presentation of the findings in drawings, numerous photographs, and carefully selected terminology in the glossary. Indeed, we can await eagerly the further development of the online database of terms that Scheper and fellow conservator Paul Hepworth have begun (2014–). Hopefully its full scope of languages (Arabic, Turkish, and Persian in addition to English) can eventually be realized and even expanded.

Overall, Scheper's findings successfully counter prevailing notions in the literature and in some communities of conservation practice that regard the Islamic bookbinding tradition as highly conservative if not static, with little to no diversity of technique and construction. The diversity attested by the survey is chiefly in choice and application of cover materials, endband structures, and patterns. Particularly interesting results are further evidence for the two-piece technique and partial leather bindings, both of which became quite popular during the Ottoman era, tabbed spines that help confirm that the covers are fashioned on the book, and the notion that sewing on four sewing stations is commonly employed as a repair technique (p. 270).

The results of Scheper's survey suggest the existence of an archetypal structural make-up for the Islamic codex consisting of link-stitch sewing, integrated spine lining, and primary endband sewing that stabilize one another and provide support for the board attachment. The manner of covering suggested is one of assembling the binding on the textblock rather than being cased in, which refutes the designation of the archetypal Islamic binding as a case-binding structure that has largely prevailed since its appearance in the frequently cited *Islamic Bindings and Bookmaking* of Gulnar Bosch, John Carswell, and Guy Petherbridge (1981). In such a case-binding structure the cover is prepared separately from the textblock and attached only via means of adhesive at the spine and hinges / inner joints.

The evidence presented by Scheper successfully disproves this notion and its implications for perceiving the archetypal Islamic structure as a weak structure.

In her interpretation of the survey results, Scheper further engages the literature via cursory treatment (limited by her inability to read Arabic or Persian) of the technical descriptions appearing in several historical treatises. No doubt her practitioner's perspective is quite valuable, but as the treatises are only accessible to her in translation, her readings raise more questions than answers at this stage. Further, she completely neglects the seventeenth-century treatise of 'Abd al-'Azīz ibn Abī Bakr ibn Aḥmad ibn Ya'qūb al-Rasmūkī (*Kayfiyyat tasfīr al-kutub*), likely owing to the fact that no accessible translation is yet available. Exploring the known texts more deeply with colleagues who control the languages would surely be a fruitful future project.

In terms of the scope of the assessment, Scheper wisely excluded textblock features beyond her expertise in language and specialist knowledge as well as those that would require significantly more time for evaluation than she had. She also excluded features that she believed could only contribute tentatively to the dating and localizing of manuscripts in her corpus owing to the limited availability of typological data. These include elements of illumination and decoration (including decorative papers), thickness of gatherings, writing material, types of media (inks, colors, and gold), and elements of layout (use of ruling board and number of lines per page). Of course, this is a situation that can only be remedied as more data are gathered and offered, specifically data for manuscripts already confidently localized and dated via other means. Indeed, if time and expertise had allowed, it would have been extraordinarily valuable for her to document these features without necessarily attempting to draw any typological conclusions, at least for the already firmly dated and localized manuscripts and the features not already addressed in the published catalogues and inventories. While fully elaborated frameworks for characterization do not yet exist for all of these textblock elements, substantial preliminary frameworks do exist for characterizing the paper writing material (Loveday 2001; Kropf and Baker 2013). Nevertheless, it is understood that such data gathering was beyond the scope of her project.

While Scheper's volume represents a significant contribution to the field, her typological findings drawn from dated and localized manuscripts should be considered preliminary given the limitations of her corpus—only about 56 percent of the manuscripts of her main corpus were explicitly dated, with another 7 percent approximately dated; and only about 9 percent of the manuscripts of her main corpus were explicitly localized. She herself acknowledges that her findings can only be a starting point for classification (p. 10). Unfortunately, the geographic composition of her corpus is never plainly spelled out, but from the chart on p. 264 it seems fairly limited in range. This is consistent with what is known of the provenance of the Islamic manuscripts in the Leiden Collection, the vast majority of which originated in the heart of the Ottoman empire. A substantial number of Southeast Asian manuscripts are also included, but regions such as Iran, Central Asia, India, the Balkans, North Africa, and West Africa are represented in far fewer numbers. All told, there is certainly room to put Scheper's findings to a more geographically and chronologically diverse sample of manuscripts.

All in all, the volume is engaging, raises many fascinating questions regarding the use of particular bookbinding materials and techniques that suggest new avenues for study, and lays the groundwork for further studies that would advance or refine Scheper's preliminary typological conclusions. As the first monograph dedicated to a detailed overview of the structural features of Islamic bindings, it is essential reading for all students of Islamic manuscript culture and will remain an indispensable reference for years to come for all others attending to the material features of Islamic manuscripts.

REFERENCED WORKS

Baydar 2002: Nil Baydar. Structural Features and Conservation Problems of Turkish Manuscripts and Suggestions for Solutions. In *Works of Art on Paper: Books, Documents and Photographs: Techniques and Conservation. Contributions to the Baltimore Congress* 2–6 September 2002, ed. V. Daniels, A. Donnithorne, and P. Smith, 5–10. London: International Institute for Conservation.

Benson 2015: Jake Benson. Satisfying an Appetite for Books: Innovation, Production, and Modernization in Later Islamic Bookbinding. In *Persian Language, Literature, and Culture: New Leaves, Fresh Looks*, ed. K. Talattof, 365–94. London: Routledge.

- Bosch 1961: Gulnar K. Bosch. The Staff of the Scribes and the Implements of the Discerning: An Excerpt. *Ars Orientalia* 4: 1–13.
- Bosch, Carswell, and Petherbridge 1981: Gulnar Bosch, John Carswell, and Guy Petherbridge. *Islamic Bindings and Bookmaking: A Catalogue of an Exhibition. The Oriental Institute, The University of Chicago, May 18–August 18, 1981.* Chicago: Univ. of Chicago Press.
- Déroche 1985: François Déroche. Catalogue des manuscrits arabes, part 2, vol. 1, 2: Les manuscrits du Coran du Maghreb à l'Insulinde. Paris: Bibliothèque nationale de France.
- ______. 2006: François Déroche. *Islamic Codicology: An Introduction to the Study of Manuscripts in Arabic Script*. London: Al-Furqān Islamic Heritage Foundation.
- Gacek 1990: Adam Gacek. Arabic Bookmaking and Terminology as Portrayed by Bakr al-Ishbīlī in His *Kitāb al-taysīr fī sinā al-tasfīr. Manuscripts of the Middle East* 5: 106–13.
- _____. 1991: Adam Gacek. Ibn Abī Ḥamīdah's Didactic Poem for Bookbinders. *Manuscripts of the Middle East* 6: 41–58.
- . 1997: Adam Gacek. Instructions on the Art of Bookbinding Attributed to the Rasulid Ruler of Yemen al-Malik al-Muzaffar. In *Scribes et manuscrits du Moyen-Orient*, ed. F. Déroche and F. Richard, 57–63. Paris: Bibliothèque nationale de France.
- Hepworth and Scheper 2014—: Terminology for the Conservation and Description of Islamic Manuscripts. Online at http://hepworthscheper.com/terminology/index-en.html.
- Kropf 2013: Evyn Kropf. Historical Repair, Recycling, and Recovering Phenomena in the Islamic Bindings of the University of Michigan Library: Exploring the Codicological Evidence. In Suave Mechanicals: Essays on the History of Bookbinding, ed. J. Miller, 1: 1–41. 3 vols. Ann Arbor, MI: Legacy Press.
- Kropf and Baker 2013: Evyn Kropf and Cathleen A. Baker. A Conservative Tradition? Arab Papers of the 12th–17th Centuries from the Islamic Manuscripts Collection at the University of Michigan. *Journal of Islamic Manuscripts* 4: 1–48.
- Loveday 2001: Helen Loveday. *Islamic Paper: A Study of the Ancient Craft*. London: Don Baker Memorial Fund.
- Porter 1992: Yves Porter. *Peinture et arts du livre: Essai sur la littérature technique indo-persane*. Paris and Tehran: Institut français de recherche en Iran.
- Rose 2010: Kristine Rose. Conservation of the Turkish Collection at the Chester Beatty Library: A New Study of Turkish Book Construction. In *Conservation and the Eastern Mediterranean: Contributions to the Istanbul Congress, 20–24 September 2010*, ed. C. Rozeik, A. Roy, and D. Saunders, 45–49. London: International Institute for Conservation of Historic and Artistic Works.
- Weisweiler 1962: Max Weisweiler. Der islamische Bucheinband des Mittelalters. Wiesbaden: Harrassowitz.

EVYN KROPF UNIVERSITY OF MICHIGAN, ANN ARBOR