

Book reviews

N. Badoud, *Le temps de Rhodes. Une chronologie des inscriptions de la cité fondée sur l'étude de ses institutions* (Vestigia. Beiträge zur Alten Geschichte, 63), München: Verlag C.H. Beck 2015. xvii + 542 pp. ISBN 978-3-406-64035-3.

This impressive monograph on the inscriptions from Rhodes by Nathan Badoud is based on the author's doctoral dissertation at the universities of Neuchâtel and Bordeaux 3, defended in 2007. Through a detailed study of some 5,000 inscriptions and even more stamped Rhodian amphora handles, which typically are stamped with the names of the eponym and the fabricant, Badoud presents a new Rhodian chronology. The inscriptions containing lists of the eponymous priests are of particular importance and the way in which Badoud relates the epigraphic evidence with the information provided by the tens of thousands of stamped Rhodian amphora handles is masterly. Convincingly he argues for a lower chronology of the Rhodian eponyms, as proposed in 2001 by Gérard Finkielsztejn in his important study of the chronology of the Hellenistic Rhodian amphorae.¹

The book opens with an introduction setting out the chronological and geographical limits of the study, describing the source material, the history of research, and the author's aims and method. Chronologically Badoud's study begins with the synoecism of the three cities of Rhodes—Ialysos, Lindos, and Kameiros—traditionally dated by Diodorus to 408–407 BC (but adjusted by Badoud to the 1st of the month Karneios 408, i.e. 17 October 408) and ends in the late 4th century AD. His study covers the Rhodian territory from the islands to the west of Rhodes (from Nisyros in the north to Kasos in the south) to the Rhodian Peraea including Megiste. The c. 5,000

Rhodian inscriptions studied are not collected in a corpus but published in over 200 publications consulted by the author. A quantification of the inscriptions gives the following result: 82% come from the island of Rhodes, 11% from the other islands under Rhodian control, and 7% from the Peraea including Megiste. Badoud gives a brief but interesting overview of previous research in the field of Rhodian epigraphic studies, from the pioneering work by the Swedish medical doctor Johan Hedenborg (1787–1865), whose unfinished dissertation on the history of Rhodes is currently being prepared for publication by Badoud. Among notable epigraphists mentioned, Friedrich Hiller von Gaertringen takes pride of place as the author of two fascicules of Rhodian inscriptions in *IG* vol. XII. The important work undertaken by Mario Segre and Giovanni Pugliese Carratelli is highlighted as fundamental for any study of the epigraphy of Rhodes. The Danish excavations at Lindos provided not only inscriptions, published by Christian Blinkenberg, but also stamped amphora handles, published by Martin P. Nilsson in 1909. Through a close reading and comparison of the lists of priests in the main cults of Rhodes—such as Athena Lindia and Helios—with the lists of magistrates, Badoud presents two Rhodian calendars: one for the “année civile”, introduced with the synoecism and beginning in the autumn with the month Karneios, and one for the “année éponymique”, beginning two months earlier, being a remnant of the old calendar of the three cities before the synoecism. Badoud establishes the order of the months by comparing the inscriptions with the amphora evidence, since the Rhodian amphora handles in the Hellenistic period were stamped with the eponym (the priest of Helios) and the name of the month.

Then follows eight chapters (pp. 11–203, including a short summary) with the following contents: Chapter 1 is devoted to the Rhodian calendar, discussing the order of the months, the two systems of civil and eponym years, the

¹ G. Finkielsztejn, *Chronologie détaillée et révisée des éponymes amphoriques rhodiens, de 270 à 108 av. J.-C. environ* (BAR-IS, 990), Oxford 2001.

sacrificial calendar, the political meetings, the effect of the synoecism, and the economy of Rhodes as viewed from the production of amphorae, which generally are believed to have contained wine. Chapters 2–4 cover the inscriptions from Lindos with a particularly interesting examination and discussion of the chronology of the list of the priests of Athena Lindia and of the list of priests of Poseidon Hippios. The latter inscription is only preserved in fragments, but it was seen and copied by Hedenborg. Chapter 5 presents the most significant inscriptions from Kameiros such as the lists of priests from the sanctuaries of Athena Polias and Apollo as well as lists of magistrates. Chapter 6 deals with the list of priests of various Rhodian sanctuaries such as the sanctuary of Apollo Erethimios at Ialysos. Chapter 7 contains a discussion of the cycle of intercalation in the Rhodian calendar and the chronology of the amphora stamps. Taking into consideration the necessity of inserting an intercalary month during certain years in a calendar like the ancient Rhodian, Badoud proposes that the calendar was operating on a cycle of 24 years. Thus, during such a 24-year period, the important office as priest of Helios would be divided equally between the three communities of Ialysos, Lindos, and Kameiros, each holding the office during three intercalary years. Chapter 8, finally, is an analysis of the chronology of the Helios priests based on inscriptions and amphora stamps.

The more than 300 remaining pages of the book contain chronological tables of the Rhodian inscriptions, the eponyms, genealogical tables (*stemmata*), a catalogue of 72 inscriptions—many of which are translated—discussed throughout the book, bibliographies, and very useful indices. In total, the epigraphic and amphora evidence listed in these tables and catalogues gives us the names of over 1,500 Rhodian citizens. The inscriptions and amphora stamps are well-illustrated with good photographs or drawings and an excellent map of ancient Rhodes on p. 2 sets the geographical scene. The bibliography is divided into three parts: literature on the inscriptions (presented chronologically and not in alphabetical order), literature on stamped amphora handles, and finally a general bibliography, which does not repeat works listed in the previous two bibliographies. Although I can partly understand the reasons behind this division, I believe the book would have benefitted from one bibliography containing all cited works in alphabetical order.

In 2001 Finkielsztejn wrote “Epigraphists and ‘amphorologists’ should work together to try and solve the discrepancies between the dating of inscriptions and amphora stamps dated by Rhodian eponyms.” (p. 233). With such a thorough work of scholarship as *Le temps de Rhodes* Badoud has demonstrated the validity of a low chronology. Furthermore, he highlights the importance of the evidence provided by amphora stamps, which is not typically the case in epigraphic studies.

The widely circulated Rhodian amphorae, found throughout the Mediterranean and the Black Sea, are hugely important for dating archaeological contexts and “amphorologists” will now have to take Badoud’s conclusions into consideration when interpreting the Rhodian amphorae. The usefulness of this book goes beyond the obvious research fields of amphora studies and epigraphy. For the classical archaeologist and ancient historian alike, Badoud’s book will become an indispensable tool for any serious study of the long period of the island’s history covered in it.

Finally, it deserves to be pointed out that the book stands as a fine memory to Mario Segre and his family, and to Giovanni Pugliese Carratelli, to all of whom the book is dedicated. The latter had a long and distinguished career, whereas the former’s was cut short by the tragic events of the Second World War. The Director of the Swedish Institute in Rome at the time, Erik Sjöqvist, courageously gave Mario Segre, his wife Noemi, and their young son Marco refuge at the Swedish Institute in 1943. On a May day in 1944 they were spotted and arrested as they were out walking. They were deported to Auschwitz where they ended their days later that month.

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H.-J. Beste & D. Mertens with a contribution by S. Ortisi, *Die Mauern von Syrakus. Das Kastell Euryalos und die Befestigung der Epipolai* (DAI, Sonderschriften, 18), Wiesbaden: Reichert Verlag 2015. 327 pp., 311 figs. (Abbildungen), 9 plates (Beilagen). ISBN 978-3-95490-033-6.

The city walls of Syracuse have finally received their appropriate publication. These fortifications were the largest and most impressive in the ancient world, measuring more than 17 km in length (according to Mertens the building volume is 327,600 m³, p. 262, n. 520).

To start with, the book has a presentation by the former soprintendent Giuseppe Voza, where he sets out the wishes of the archaeological authorities of Syracuse that these fortifications should finally be registered, documented, and the remains drawn on plans in order for them to be protected for the future in archaeological zones and avoid being destroyed by the rapidly growing urban fabric of the city. This aim has been fulfilled in the most excellent way. Very detailed plans of the city wall are presented in nine plates (Beilagen): a general plan of all Syracuse (Beil. 1) with known ancient remains marked (scale 1:10,000). This plan then refers to six detailed plans for the western Epipolai with Euryalos fort (Beil. 2a);

the north Epipolai wall (Beil. 2b, 3a, and 6); the eastern Epipolai wall (Beil. 3b and 3c); the south Epipolai wall (Beil. 4); and plans and sections of the Euryalos fort (Beil. 5, 6–9).

The book contains seven chapters, the first of which is a summary in Italian by Dieter Mertens, then follows the introduction (Chapter 2), description of the walls of Dionysios (Chapter 3), the Euryalos fort by H.-J. Beste (Chapter 4), the excavations at the Euryalos fort by S. Ortisi (Chapter 5), tactical considerations and building history (Chapter 6), and finally notes on the plates (Chapter 7).

The introduction Chapter 2 starts with a very thorough compilation and analysis of images and plans of Syracuse produced from the 16th century (pp. 26–44). There is also a well-presented overview of previous research (pp. 44–48).

Chapter 3 is the architectural and topographical description of the preserved remains, divided into the north wall (p. 57–85), the east wall (p. 86–100), and the south wall (p. 100–125).

The north wall covers a distance of 5,244 m and contains ten towers, four gates and postern gates at every 100 Doric feet (= 34 m with a foot length of 31.58 cm, p. 256). The wall has an average thickness of 2.60 m (2.58–2.63 m, p. 59). The estimated height is 6 m and reconstructions show a wall with a continuous parapet with windows or apertures instead of merlons (Abb. 289, p. 263). The north wall is the earliest according to Mertens and it is also the section described in a famous passage by Diodorus Siculus (14.18.2–5). According to Diodorus, the wall was built by 60,000 men, measured 30 stadia in length, and was finished in 20 days. According to Mertens, 30 stadia (30 × 189.50 m) gives a total length of 5,685 m which is a little longer than the length published here. However, Mertens thinks that the time limit given by Diodorus for the construction of the north wall is possible (p. 257).

The east wall, which runs very close to the cliffs along the sea shore, measures 7.50 km in length. Here very little is preserved of the masonry of the walls, but in many places bedrock cuttings indicate the course of the walls. The wall is 2.30 m thick and contains four towers.

The south wall has a length of 4.20 km and measures 2.62 m (8 ft) in thickness. There are four gates, nine towers and a large Hellenistic fortress, “Castello Tremilia” (Abb. 126–133).

Chapter 4 is a very careful architectural description and analysis by H.-J. Beste of the Euryalos fort, the largest artillery fort of antiquity. The chapter contains many excellent drawings of architectural features and details and a complete stone plan (Beil. 5), as well as sections and elevations of the fort and the ditches.

Chapter 5 is the catalogue of the excavated finds between 1991 and 1993, by Salvatore Ortisi. The excavations indicated that the area of the Euryalos was used from the late 5th to the early 1st centuries BC (p. 207). Of importance is the

excavation around the wall that is believed by the team to be a section of the original Dionysian cross wall spanning the Euryalos area before the construction of the fort (US 2, pp. 206, Abb. 235, but also Abb. 292). Another important result is that the excavations (trench M91) indicated that the large fortification ditch C originally was planned in phase IIa to have the shape of a chevron, just as the later ditch B and thus following the shape of the *proteichisma* wall immediately in front of the five-tower battery. The lack of a continuous find numbering system makes the reading of the catalogue a little difficult.

The first part of the tripartite Chapter 6 (pp. 241–252) is a useful analysis and description of what we know about the fortifications in Syracuse before Dionysios I. Here Mertens notices two sections of probable remains of the Archaic fortification walls of the old city: a possible city gate in Via Arno (marked 22 on Beil. 1) and a curtain wall fragment (marked 58 on Beil. 1), both of which are important for our understanding of the city's fortifications before the inclusion of the vast Epipolai plateau by Dionysios I. In section 2 of the chapter, the walls of Dionysios are analysed (pp. 252–264). The vast Epipolai walls are one of the earliest example of the typically 4th-century feature that is usually described with the German word “Geländemauern”, city walls that for tactical reasons surround a larger territory than the space inhabited by its citizens. Mertens believes that the south walls are tactically more developed than the north walls. He notices that the north walls are built rather straightforwardly with gates and posterns spaced at specific distances, while the south wall, being a later development, exhibits towers and gates where posterns are located nearby for the sending out of strategic sallies. Here there is also a drawing (Abb. 287) which shows the wall technique with the use of headers and stretchers in the Dionysian walls. However, a correction is here necessary, headers are never placed above the joints between the stretchers below.

In the final section of Chapter 6, Mertens enters into the more problematic questions about the dating of the five-tower battery and the foreworks and ditches in front of it. He established five phases, where phase I is the Epipolai walls of Dionysios I (and the early cross wall, see above and Abb. 292–293). It should be noted that Mertens already in this phase placed the trapezoidal shape of the Tripylon gate. Phase II represents the construction of the five-tower battery, the chevron-shaped *proteichisma* in front, and the huge ditch C (Abb. 294–297). This phase is dated to before the end of the reign of Dionysios in 368 BC (p. 269). Phase III is a further development of phase II with the cutting of the huge ditch D south of the Euryalos fort and the further development of the underground passages. These two phases represent an offensive defensive strategy where the sending out of sallies to attack enemy positions is an important ingredient (p. 268). Phase IV

is the construction of the large chevron-shaped *proteichisma* with its rows of catapult emplacements and ditches A and B. Mertens compares this arrangement with the outworks at Selinunte, also studied in depth and published by Mertens and his team. These outworks have already been dated by several scholars to the time of Agathokles of Syracuse (around 307/6 BC). Mertens is here thus lifting back also the outworks at Syracuse to the time of Agathokles. This conclusion stands in contrast to earlier works dating them to the time of Hieron II (269–215 BC), designed by his engineer Archimedes, an idea originally put forward by A.W. Lawrence in 1947, whose argument for this is that the *proteichisma*, and especially ditch B with its underground passages were never completed. The reason for this was the capture of Syracuse by Marcellus and Rome in 212/211 BC, which interrupted the construction of the outworks. To this latest moment of Syracusan independence, which is Merten's phase V, rooms inside the fort and some small closing-off walls are ascribed, for example wall 13 (no. 18 on Beil. 1, Abb. 172), which prevented anyone from entering the huge ditch C. According to Mertens, we are back at a passive approach to defensive strategy (p. 293). Posterns and openings are being walled-up. So, according to this publication, nothing of the outworks at Syracuse can be assigned to the engineer Archimedes.

This book is an excellent publication with useful and detailed drawings. As stated by Mertens several times, this is a study of the walls on the Epipolai plateau, but there are also several very well-researched and informative sections of walls of the other regions of Syracuse, such as Ortygia and Achradina (pp. 241–255).

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D. Panagiotopoulos, *Mykenische Siegelpraxis. Funktion, Kontext und administrative Verwendung mykenischer Tonplomben aus dem griechischen Festland und Kreta* (Athenaia, 5), München: Max Hirmer Verlag 2014. xiv + 394 pp., 60 figs. ISBN 978-3-7774-2288-6.

This long-awaited monograph, the publication of Panagiotopoulos' *Habilitationsschrift*, is the most comprehensive synthesis on Mycenaean sealing practices currently available. Earlier, we had the quite readable account in Olga Krzyszkowska's *Aegean seals. An introduction* (2005), which made extensive use of the conclusions and analyses of the *Corpus der minoischen und mykenischen Siegel (CMS)* project. The latter recently moved (December 2011) to Heidelberg, under the

joint supervision of Panagiotopoulos and Maria Anastasiadou (www.uni-heidelberg.de/fakultaeten/philosophie/zaw/cms). Panagiotopoulos' research has followed closely and expanded significantly on the *CMS* mass of data.

Following a short introduction (pp. 1–7), where the author outlines the scope, aims, and methods of this work, the volume is divided in twelve chapters, grouped in three parts.

The first part deals with the reconstruction of the historical framework of Mycenaean seal use. Chapter 1 (pp. 9–30) aims to provide a general overview of the Mycenaean palace economy that employed the sealings, focusing on three realms of activity that Panagiotopoulos identifies as the main “structural components”: production, accumulation, and exchange, and the involvement (or not) of sealings in each one of these interconnected segments. From the outset, Panagiotopoulos views the palace both as an economic and as an ideological institution. Chapter 2 (pp. 31–56) deals with the (Cretan) predecessors of the Mycenaean system and provides a good overview of those sealing types associated with the Linear A script (cf. previously E. Hallager's, *The Minoan roundel*, 1996). Panagiotopoulos discusses a number of interesting aspects in Neopalatial sealing administration, such as the so-called “intensive seal use” (evident e.g. in Ayia Triada), the practice of multiple sealing on the same document, the problem of similar seals (“look-alikes”) used in the same contexts, the relationship between sealings and clay tablets, and particularly the so-called Knossos “replica rings” (precious metal rings that had produced identical impressions on sealings from different sites in Central Crete, East Crete, and Akrotiri, Thera). A final section assesses the considerable—to say the least—distance between Neopalatial and Mycenaean seal use, and Panagiotopoulos advances the interesting hypothesis of a Cretan Hieroglyphic “substrate” that affected the formation of the Mycenaean sealing system (p. 56). One hopes that pertinent discussion will be rejuvenated by the forthcoming publication (by Erik and Birgitta Hallager) of the Late Minoan II–III A1 (late 15th–early 14th centuries BC) material from Chania, crucial for our understanding of the process that led to the formation of the Mycenaean system, largely known from 13th century BC contexts (pp. 35, 265).

The second part provides a detailed analysis of the archaeological evidence for seal use. Chapter 3 (pp. 57–105) has the convenient form of a gazetteer, discussing the contexts in which sealings have been found. Greek mainland (Pylos, Thebes, Mycenae, Midea, Tiryns, and Menelaion) and Cretan (Knossos, Malia, Chania, and Kommos) find-places are considered in detail, accompanied by plans, indicating the distribution and contextual associations of specific sealing types in the various assemblages. Presentation is thorough, clear, and

valuable, even with the omission of an interesting—yet typologically obscure—fragmentary sealing from Kolonna.¹

The typology of Mycenaean sealings is outlined in Chapter 4 (pp. 107–122). Panagiotopoulos follows closely the CMS terminology, with one significant modification: the distinction of what he calls *kanonische Schnurplomben*, corresponding to Krzyszkowska's "gable-shaped hanging nodules" (*Aegean seals*, op. cit., pp. 218–219, 280) and Hallager's "regular string nodule."² Panagiotopoulos' "nicht-kanonische Schnurplombe" are a heterogeneous grouping equivalent to Krzyszkowska's "irregular hanging nodules" (*Aegean seals*, op. cit., pp. 219–220, 280–281) and Hallager's "irregular string nodules" ('Uniformity', op. cit., pp. 254–258), even if the internal subdivisions of this category are different in Hallager. One wishes that this crucial distinction had been made explicit in the typological summary table (p. 111) and in the excellent illustrations accompanying the discussion of contexts in Chapter 3. Other types should be familiar to students of Aegean administrations (*Objektschnurplomben* = combination nodules/sealings; *Stoppfern* = stoppers; *Objektplomben* = direct-object sealings; *Noduli*; "Päckchenplomben" = flat-based nodules; "Tonstempel" = "clay seals"; *Schnurendplomben* = single-hole hanging nodules); the possible identification of two "Schnurendplomben" (single-hole hanging nodules)—a type otherwise exclusively Neopalatial—at Mycenae and Knossos respectively is of great interest (p. 117). Although not belonging within the scope of the book *sensu stricto*, Panagiotopoulos also briefly discusses those few inscribed nodules that bore no seal impressions, found at Knossos and Pylos, which he terms "clay labels" (pp. 120–121; English in the original).

Chapter 5 (pp. 123–160) deals in an original way with the messages conveyed by the seal impressions themselves. The double function of the image on the seal impression is assessed in a rigorous manner. On the one hand, the seal image functioned as an indexical sign, confirming the identity of the seal owner and therefore authenticating the sealed document (p. 123–124); Panagiotopoulos stresses that the diversity of the motifs would be insufficient to distinguish different *individuals*, and that the existence of similar motifs in the same context(s) suggests rather affiliation between seal-users, perhaps representing broader entities (such as kin-groups, factions, or administrative offices). On the other hand, seal images maintained an iconic function (pp. 124–133); the author

makes the important observation that the images on the seal impressions can be classified into just few major semantic categories (participation in ritual action; real and fantastic predators in heraldic arrangement; scenes of combat and hunting; domestic animals and wild game), which thus represent a Mycenaean *orbis pictus*, a collection of images which were emically significant as representations of fundamental values of the palatial society (p. 149). The final sections discuss the problem of the discrepancy between the accepted early chronology of the seals and the later date of the sealed documents themselves, for which Panagiotopoulos supports a provocative solution: to allow for the possibility that some production of seals and signet rings continued down to the 13th century BC (pp. 158–160).

Chapter 6 (pp. 161–187) deals with the inscriptions found on sealed documents (predominantly on "canonical" or "regular" gable-shaped string nodules). Technical/administrative terms, place-names and ethnics, as well as commodity signs are discussed (but the signs for "man" and "woman" on the Knossian *noduli* Wn 8713 and 8752 are omitted). Interpretations are sensible, even if not always the preferred ones: *me-ka-ro-de*/Megaronde/ on the Midea sealing MI Wv 6.β1 need not imply the residence of the local ruler or the Midea citadel itself (p. 174): it is at least just as likely that **me-ka-ro* (perhaps Megaron indeed) was a place-name located somewhere else in the Argolid (cf. the plural form Megara).

The third part attempts to synthesize all previously presented information in order to reconstruct sealing practices in each of those sites that have yielded sufficient evidence. Chapters 7–10 (pp. 189–247) discuss evidence from various contexts at Pylos, Mycenae, Thebes, and Knossos respectively. This approach allows both the differences and the similarities between palace centres to become clear.

Chapter 11 (pp. 249–263) revisits certain fundamental questions about the function of the various sealing types and their relationship to the tablets. Panagiotopoulos distinguishes between the securing and the labelling function of the non-canonical and canonical string nodules respectively, and presents some very interesting thoughts regarding the physical attachment of certain string-nodules to some elongated tablets bearing string-marks (pp. 253–254). The author is successful in outlining the relative flexibility in the employment of the various sealing types, stressing the ultimately palatial character of their use (although whether sealings were employed in exchange between palatial centres is more debatable).

A short concluding Chapter 12 (pp. 265–271) presents conveniently the main results and perspectives of the preceding chapters (cf. Panagiotopoulos' 'A systemic approach to the Mycenaean sealing system', in *Die Bedeutung der minoischen und mykenischen Glyptik*, edited by W. Müller, CMS Beiheft 8, Mainz 2009, pp. 297–307). The author's own characteriza-

¹ W. Gauss, 'Ägina Kolonna in frühmykenischer Zeit', in *Keimelion: Elitenbildung und Elitärer Konsum von der Mykenischen Palastzeit bis zur Homerischen Epoche*, eds. E. Alram-Stern & G. Nightingale, Wien 2007, 166–167, fig. 6.

² E. Hallager, 'Uniformity in seal use and sealing practice during the LH/LM period', in *Ariadne's threads. Connections between Crete and the Greek mainland in Late Minoan III (LM IIIA2 to LM IIIC)*, eds. A.-L. D'Agata, J. Moody & E. Williams, Athens 2005, 253–254

tion of this book as “eine erste Zwischenbilanz des Materials” (p. 271) displays an ideal proportion of modesty.

Three appendices (pp. 273–328) contain indispensable concordance lists of all properly published (in *CMS* and associated publications) Mycenaean sealings. The bibliography (pp. 329–347) is full up to 2011, with only one entry not updated before the submission of the manuscript at the end of 2012: ‘Hallager im Druck b’ (p. 334) was published in 2011.

The abundance, high quality and informativeness of the illustrations (most of them plans and graphs in colour) accompanying the data presentation (mostly in Chapters 3–5) deserve high praise. Overall, this excellent monograph should be consulted and carefully considered by anyone with a serious interest in understanding the workings of the Mycenaean palatial administrations. While maintaining the interest of the expert reader, it can now also be recommended as the best introduction to Mycenaean sealing practice to students and non-expert professionals alike.

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S. Vargas Vázquez, *Diseños geométricos en los mosaicos de Écija (Sevilla)* (BAR-IS, 2654), Oxford: Archaeopress 2014. 202 pp., 21 figs., 48 plates, 53 geometric drawings. ISBN 978-1-4073-1296-5.

This innovative book focuses on the geometric mosaics of the Roman city of Colonia Augusta Firma Astigi, modern Écija in Andalusia, Spain. The study presents a way to reconstruct the geometric patterns on mosaic floors in an accessible arrangement. Most importantly, the book gives a convincing picture of the creative process of imaginative geometricians and skilled craftsmen. This work is a substantial achievement founded on the decoding of the geometric compositions through a system of construction drawings developed on AutoCAD by the author. They show how the basic forms relate and in ever-changing combinations generate new patterns of great complexity and visual attraction.

The publication is a shortened version of the author’s extensive thesis defended at the University of Pablo Olavide, Seville in 2013/2014. Written in Spanish, the volume comprises an informative abstract in English, an introduction, and six chapters, followed by black and white plates, graphic documentation, and a bibliography. The catalogue contains 48 selected well-conserved geometric mosaics among the originally collected 78 of the city, as those that are lost or fragmented are omitted in this publication.

In the introduction and abstract the author presents an informative setting of the study and its place in a larger future project covering the geometric mosaics of the whole region of Bética. An overall aim is set to increase the interest in and heighten the value of geometric motifs in Roman mosaics, which have been overshadowed by figurative motifs in previous studies. The author rightly remarks that this is in contrast to the role geometry held in the contemporary Roman world. As one of the practical branches of mathematics, geometry was central for the advancements in architecture, engineering, urban planning, and surveying, not to mention the role it played in the embellishing of different sorts of material.

Chapter 1 (“Methodology”) (the following titles are the reviewer’s translation) introduces the arrangement of the book and the catalogue, described in more detail below. Chapter 2 (“Historic contexts”) presents the ancient settings for the mosaics, the city of Astigi, which played a significant role in the history of economic success of Bética and dating from Emperor Augustus time, about AD 14onwards. Situated in one of the most fertile areas of the Iberian peninsula and ideally placed in the centre of the region, Astigi’s production of olive oil, which constituted the main base for its wealth, reached its peak under Emperor Hadrian. This coincides with the city’s maximum size and its monumental architecture between the 1st century BC and the 2nd century AD. The period of abundant mosaic production is longer, extending from the 1st to the 4th centuries AD.

Chapter 3 (“Current state of research”) affirms that the mosaics of the city equal those of other large cities in the Roman Empire, but their number, quality, and originality differ from the rest of Bética and they have evoked great interest since their discovery. The excavation history starts in the 1940s resulting in the first publication in 1951 (Hernandez Sanchez Collantes de Terán), which according to the custom of the time, primarily focused on well-known mosaics with mythological motifs. New studies took place during the 1950s and the interest continued in the 1970s and 1980s. G. López Montegudo is mentioned as a forerunner who has explored the area since 1992 emphasizing the iconographic uniqueness of the figurative motifs.

Chapter 4 (“Catalogue”) presents in the first part the 48 mosaic panels, which are organized according to their location. The second part presents the plates with photographs or drawings of the mosaic panels found in Écija that display the patterns focused on by the study. The catalogue includes a general description with an overview of the geometric area, followed by a closer presentation of the basic geometric structures and a chronology. The establishment of a timeline presented larger problems than expected, since fundamental and reliable information was missing and geometric motifs were used over an extensive time-span.

Chapter 5 (“Geometric construction drawings”) is divided into two parts and comprises the core of the study with the aim to individualize, deconstruct, and reconstruct the different geometric designs found in Ēcija in their ideal forms. The first part encompasses a presentation, classification, and definition of the geometric forms used, the “letters” in the geometric alphabet; these range from simpler forms to those that are more complex. The 48 presented geometric mosaics of the city are classified into twelve groups, A to L, representing the different forms of basic design which dominate in each mosaic, such as linear (A), circular (B), and triangular (C).

In this part, different ways of constructing a geometric pattern from the basic geometric figures are attempted. As a consequence the author is also able to suggest how geometric patterns might have been created and applied on the mosaic floors. The first stage shows the complete geometric construction, while the following present shortcuts of constructing and transferring the patterns, which nevertheless both require a fine understanding of and division of space. The methods employed could have included creating the figures from a grid of lines or repeating basic geometric figures, with so called modules. Both ways are easy to vary and can therefore be seen as a kind of pattern generator. Using a module, the forms, such as a square, hexagon or triangle, would have been repeated through the use of a set of tools common in many crafts, including compass, ruler, and matrices/templates. Here the author illustrates how a composition develops from a previous one, and how compositions which in appearance look very different could have a common geometric base.

The second part “the graphic documentation” constitutes a compilation of construction drawings, arranged according to the geometric forms. They illustrate how complex combinations can be developed from a simpler one. The patterns are here recreated in their ideal form, as proto models, with the measurements corresponding to a mosaic without construction faults. The drawings display how an impressive number of new patterns from, for example a simple figure of a square, can be created and varied.

In the last part (“Final considerations”) the author identifies the originality and quality of the mosaics of the city, where no two mosaic floors have a similar composition. Such a variety means that researchers need to develop new analytical methods, in order to identify workshops or establish a chronology. One solution is integral studies of each mosaic, which include lesser decorative components and boards (the lines forming the panels with the geometric design.. This has already been done in the current study with convincing results, tracing seemingly disparate panels to the same building and the same period.

In an interesting section, the author suggests that we ought to regard the creators of the original compositions as dedicat-

ed geometric masters with inquiring minds and with freedom to experiment, although we do not know for what media or material. It can be pointed out here that geometry was one of the four branches of mathematics included in the *artes liberales*, together with arithmetic, music, and astronomy, and the reviewer becomes curious to know more about the link between the original creations and their development in mosaics. Possibly the compositions displayed can be thought of as equivalent to the dynamic store of geometric patterns that workshops most likely used in order to adapt to any floor, taste, and circumstance. Hence, the craftsmen were equally creative and boldly experimental. As the author suggests, what we see is a “play with geometry”, in constant search for new variations and solutions.

As always, the colours are missing in BAR, which in this case brings some disadvantages but also advantages. On one hand the excellent drawings would have been eye-catching in colour, however, on the other hand the black and white print increases contrasts and lines, so they now become more distinct and the patterns more legible.

To conclude, the great advantage of the book is that it gives the reader a key to understand and decipher the geometric figures, forms, and compositions. The study also gives an idea of how little was needed to create new patterns, sometimes with astonishing optic effects, by changing scale, proportions, contrasts, and chromatics, producing a strong impact on the viewer. It will positively contribute to a paradigm shift in our understanding of the making of geometric mosaics and their makers. This, I would say, is the great benefit of the study, which will hopefully add to the ever-growing opinion of the mosaic art as unceasingly inventive.

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E.J. Watts, *The final pagan generation* (Transformation of the Classical Heritage, 53), Oakland: University of California Press 2015. 327 pp. ISBN 978-0-520-28370-1.

It is difficult to overstate the importance of the Christianization of the Roman Empire in the 4th century. Understandably, it has been an object of study for multitudes of scholars, and continues to be so. *The final pagan generation* by Watts both is and is not a contribution to this field. On the one hand it deals with the consequences of advancing Christianity, how the structures of empire became increasingly Christian in the course of the 4th century. On the other hand its purpose is to study those who did not take an active part in this process,

but who continued to live lives in which religious controversy was not the dominant factor. What Watts wants to do is to show that such concerns, the struggle between a triumphant Christianity and a retreating paganism, did not feature as large in the lives of the majority of Romans at the time as the sources would have us think, or at least, they didn't matter in the same way. He particularly wants to track the concerns of an older generation, that which was old in the 390s and which had been active for most of the middle of the 4th century. This generation was born in the 310s or early 320s when the empire was still firmly pagan and Christianity was merely the favourite cult of the emperor Constantine. This is the final pagan generation of the book's title, and it included both Christians and pagans.

In the Introduction Watts states that this book is about the silent majority of the 4th century Roman empire, those who in an analogy with the 1960s "spent the fourth century doing the equivalent of going to work, washing their cars, and mowing the lawn while their children participated in the unfolding of a revolutionary age" (p. 9). However, the main protagonists are far from representatives of the silent majority. The book follows the fates of Praetextatus, Ausonius, Themistitus, and Libanius, as they progress through their lives from childhood and school, through university and public careers, to their old age. Each chapter deals with the different stages of their lives, setting out the political and religious framework in which they lived and worked, and how these affected their fortunes. Since they were very prominent individuals much information about them has been preserved, particularly from their own writings, but they represent only the very small minority of the aristocracy, and in Praetextatus' case the even tinier minority of the "senators of Rome".

Theirs was the final generation brought up in a world in which paganism was the norm. In the first two chapters Watts tells of their childhood and education, making the point that the world in which they grew up was firmly pagan. From an early age children were surrounded by the divine, by its rituals, smells, and sacred objects, as well as admonitions to respect the gods. In the 320s they moved on to university, but although Constantine had by this time started to move against the practice of pagan cults, Watts argues that they failed to be concerned by the emperor's restrictions, or to engage with them. Their lives revolved around their teachers, probably all pagans, and their fellow students. The world at large and which religious policies the emperor was promoting at any one time were, according to Watts, far from their minds.

In the next four chapters Watts describes first the imperial system of the 4th century (Chapter 3) and how the final pagan generation began to interact with the wider world (Chapter 4) and rose to prominent positions within the empire's hierarchies (Chapters 5–6). The empire they grew up in was

one of great opportunity and wealth for the provincial upper classes, as imperial administration expanded in the emperors' attempts to channel the talents of provincial aristocracies towards the good of the empire. They were concerned with working within the system and with maintaining it. Religious questions and struggles, although they were aware of them and engaged with them to a degree, were not as high on their agenda as other concerns, such as political careers and social standing. One of the more interesting points made by Watts is that the imperial system in which the final pagan generation worked favoured friendships and connections, both social and political, over religious issues. Most élites, whether pagan or Christian, did not welcome imperial interference when it came to their religious beliefs. For instance, many of Libanius' letters from the reign of Julian support Christian friends of his who were threatened with disruption because of the emperor's new anti-Christian policies (pp. 122–124). The maintenance of his social and political network was more important to Libanius than supporting religious measures with which he actually sympathized. Attitudes such as this lent the system a certain inertia, which softened the effectiveness of imperial attempts to legislate on religion.

The following generation was much more anxious about religious matters, and thus more inclined to get involved in religious struggles. In an interesting chapter (Chapter 7), Watts show how many Christian aristocratic youths in the second half of the 4th century chose to abandon the careers of their fathers for which they were training to join the clergy (e.g. Ambrose) or to become ascetics. Watts calls them "dropouts". Not only did Christians begin to realize the full consequences of their monotheistic religion and its incompatibility with paganism, but there was also an increase of opportunities to exert influence outside the imperial system. From Constantine onwards churches and bishoprics accumulated large resources, giving bishops the means to compete for influence and patronage. When individuals from local nobility, like Ambrose, became bishops this further increased the prestige of the Church and thus its influence. The growing power and prestige of bishops meant that they could challenge the authority of the imperial system.

The last three chapters (Chapters 8–10) tell the story of how the final pagan generation in the reign of Gratian and Theodosius was gradually being replaced in positions of authority by members of this younger generation with less faith in the imperial system. By this time the game had begun to change. So long as the social and administrative imperial system functioned without a serious rival, people like Libanius were successful in limiting the anti-pagan measures of Christian emperors (and in limiting the anti-Christian measures of Julian). But with the growing influence of the Church and Christian "drop-outs" they were less successful, as threats to

pagan activities and buildings came from outside the system, and were consequently less vulnerable to counter-measures from within it. Nevertheless, members of the final pagan generation continued to live their lives pretty much as they always had, albeit experiencing a gradual lessening of their influence due to old age and rival power structures.

Watts' book is an important contribution to our understanding of why Roman society at the end of the 4th century experienced and was receptive to a firmer stance against paganism, both from the emperors and from the Church. Earlier attempts to clamp down on pagan practices were ineffective because of the inherent inertia of the imperial system, its desire to maintain status quo. By the 370s forces outside the system began acting against pagan cults with the tacit approval of the emperors, emperors who were themselves products of the age which produced Christian "dropouts".

No less important, however, is Watts' argument that for most Romans the religious upheavals of the 4th century were not the main focus of their lives. On the contrary, both Christians and pagans continued much as before, living their lives whilst a revolutionary age unfolded, perhaps not behind their backs, but certainly without their involvement or particular concern for the future of their own religious identities.

There are some irritating aspects of this book, however. At times it is vague and fails to follow an argument through. In several instances the treatment of the sources is hurried and the consequent conclusions simplistic. Whether the reason

for this is a rushed deadline imposed by the publishers or the consequence of limited space or something else, the fact is that *The final pagan generation* would have benefitted from a more thorough discussion on several points. Furthermore, in two instances I checked the source referenced out of pure interest, and in both instances the sources were misrepresented (p. 63, n. 32, *The Life of Melania* 17; p. 169, n. 7, *Amm. Marc.* 28.1.57). A random sampling of references show that this is not a common occurrence, nor would I expect it to be, and at least in the second instance the discrepancy between Watts and the sources has no actual bearing on his argument, but it does seem sloppy and reinforces the sense that the book was rushed through publication, which is a pity.

But let me end on a positive note: I like this book. It has its weaknesses, which seem to be the result of too much haste more than anything else, but it offers an interesting way of looking at the process of Christianization and the social mechanics that made the triumph of Christianity at the end of the 4th century possible. And it shows that religious controversy was not at the top of the agenda for most Romans, whatever the sources would have us believe.

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