Ch. 4, 'The Amphitheatre between Republic and Empire: Monumentalization of the Building Type', examines amphitheatre construction in the Augustan period. Here W. discusses the emergence of ornamentation on amphitheatres, which began with the use of the Tuscan order and rusticated masonry. She contextualizes the simple ornamentation of amphitheatres as befitting their role as Roman buildings for Roman-style entertainments, while venues for Greek tragedy or comedies, for example, were ornamented with Greek orders: Doric, Ionic, and Corinthian. W. theorizes that the amphitheatre of Statilius Taurus was of the Tuscan order and may have been a 'missing link', serving as a prototype for other Augustan and early imperial amphitheatres (126). In her lengthy discussion of Taurus' amphitheatre (108–26), she also characterizes it as a militaristically-themed building, constructed by Octavian's infantry commander who served him in the war against Sextus Pompey, in the Dalmatian wars, and at Actium.

The fifth chapter, 'The Colosseum: Canonization of the Amphitheatre Building Type', examines the highest point in the evolution of amphitheatre architecture. In the Flavian period, the amphitheatre was conceived of as something new and it included all of the Greek architectural orders. W. believes this signifies an elevation in the cultural status of the amphitheatre and associates this with extensive discussion of the amphitheatre in eclogues and epigrams. She reads this as a political response by the Flavians to Nero, who was criticized for not providing enough arena-style spectacles. W. then discusses the political significance of construction of the Colosseum on the site of Nero's Domus Aurea. A concern for tradition and also a military connection is made evident by the archaic formulation *ex manubiis* (financed from the spoils of war) in the dedicatory inscription of the Colosseum. A number of amphitheatres architecturally inspired by the Colosseum are also discussed.

Ch. 6, 'Reception of the Amphitheatre in the Greek World in the Early Imperial Period', is a case-study of spectacles in Athens, which used the Theatre of Dionysus for combats, and in Corinth, which both had an amphitheatre and used the town centre. W. examines the Greek taste and distaste for Roman-style entertainments in their cultural contexts and Greek attitudes regarding them, which necessitated or discouraged the construction of amphitheatres. The book's conclusion is followed by a useful appendix on 'Amphitheatres of Republican Date'.

One minor quibble is the unquestioned acceptance of the location of the imperial box in the Colosseum in the south-west platform on the minor axis. The notion that the emperor sat here is based on the problematic supposition that the 'Cryptoporticus of Commodus', which led to the platform, served as a secret entrance (see I. Iacopi, 'Il passaggio sotterraneo cosiddetto di Commodo', in A. La Regina (ed.), *Sangue e Arena* (2001), 79–87; N. T. Elkins, 'Locating the imperial box in the Flavian amphitheatre: the numismatic evidence', *NC* 164 (2004), 147–57). Further work on the Colosseum appeared while this book was in production. On the Colosseum sestertii see now N. T. Elkins, 'The Flavian Colosseum *sestertii*: currency or largess?', *NC* 166 (2006), 211–21; and on the date of Martial's *Liber de Spectaculis*, T. V. Buttrey, 'Domitian, the rhinoceros, and the date of Martial's *Liber de Spectaculis*', *JRS* 97 (2007), 101–12. W.'s thorough study has made an authoritative contribution to the study of arena spectacle and amphitheatre architecture. This well-illustrated book, with copious citations, will change the way we approach and understand gladiatorial spectacle and amphitheatre architecture.

The University of Missouri/Goethe Universität, Frankfurt NATHAN T. ELKINS

C. GIAVARINI (ED.), *THE BASILICA OF MAXENTIUS. THE MONUMENT, ITS MATERIALS, CONSTRUCTION, AND STABILITY* (Studia Archaeologica 140). Rome: 'L'Erma' di Bretschneider, 2005. Pp. 260, illus. ISBN 88-8265-359-5. €140.00.

The three huge vaults of the Basilica of Maxentius, formerly long known as the Temple of Peace, are the largest and most striking remains of the modern archaeological area of the Roman Forum. Their dominating physical presence makes the absence until now of a monograph on this substantial structure all the more conspicuous. Nonetheless, it has hardly been neglected by architects: in the Renaissance, it was drawn in the Conex Coner of *c.* 1515 and re-used in 1547 with a terrace garden and belvedere laid out on the roof of the north aisle for the palace of Eurialo Silvestri da Cingoli built by Antonio Sangallo the Younger. Having lost its roof already well before then, the interior of the building was undeveloped and used successively as a cattle-yard, a riding school, and a military exercise-ground, until it was re-studied and later drawn by the French architects of the École des Beaux Arts (see Roberto Cassanelli *et al., Ruins of Ancient Rome: the Drawings of French Architects who won the Prix de Rome, 1786–1924* (2002)) and the British architect

Anthony Minoprio in the 1930s (*PBSR* 12 (1932)); shortly afterwards, a false roof was added to the north apse to convert the feature into an oratory for Adolf Hitler's visit in 1938 (59). Its enduring fascination is exemplified by its recent idealistic and cynical re-conception as an extravagant shelter for homeless people and stray cats (14, fig. 12).

The architectural significance of this structure, one of the largest masonry halls of the ancient world, is already beyond doubt: including its west and north apses, its length extended to over 90 m and its width to almost 70 m; the span of its central nave, at over 25 m, is larger than that of St Peter's. The present book, the latest in the series *Studia Archaeologica*, reinforces that significance emphatically. The volume commemorates an interdisciplinary achievement undertaken by the Soprintendenza di Roma for the Jubilee of 2000, which involved architects, archaeologists, engineers and even chemists, directed by CISTeC (the Centro di ricerca Scienza e Tecnica per la conservazione del patrimonio storico-architettonico), and a photographic survey by the Leipzig-based group Fokus GmbH. Under the architect Giuseppe Morganti, the building was surveyed, conserved, and stabilized with a provisional and reversible consolidation in the north-west sector of the building; its surfaces were restored, the north apse reroofed, and the upper terrace waterproofed and repaved with *sanpietrini* relaid over stainless steel tiles, almost to recreate the belvedere of Silvestri's palace.

Seven extensive chapters documenting the building's structure, materials, and history are the work of Giavarini and three collaborating authors. The second chapter, by Carla Maria Amici, on the chronology of the building (21–74) will be of greatest interest to classicists. Following earlier work by Barosso, Amici documents how this important site in the centre of Rome, on what were formerly the southern slopes of the Velia saddle between the Palatine and Esquiline hills, was levelled under Nero to create a wide monumental entrance for his Golden House and subsequently redeveloped and reclaimed for public use by the Flavian emperors for the huge spice warehouse, known in the Regionary Catalogues as the Horrea Piperataria. It is no coincidence that it is the three huge vaults from the north side of the building, today so conspicuous from the Palatine and Capitoline hills, which survive, as this part of the building rests on the remaining undisturbed natural bedrock of the Velia hill, while the southern side was built on the Neronian walls and used the Flavian structures as formwork, filled in with dirt and rubble (re-excavated in the Middle Ages for housing).

Chs 3–7 are very different in style. Lacking the extensive documentation of the previous chapter and almost without endnotes at all, they are characterized by a much drier, technical prose. Giovanni Calabresi's geological analysis of the subsoil and foundations of the basilica (75–91) emphasizes how its north-west sector, on the side of the Carinae, was subject to the greatest stresses. Giavarini surveys the building's materials: the brick industry at Rome, chemical properties of the mortars and pozzolana used, and the mechanical properties of the concrete employed; of the marbles used for columns, revetment and paving, the dominance of Numidian yellow marble for wall revetments and of Proconnesian and Pentelic white marbles for the architectural elements, almost all re-used, stand out (122). G.'s account is not as ambitious or detailed as Delaine's study of the Baths of Caracalla, in particular with respect to the logistics and time periods of the construction. Few precise conclusions emerge about the dating of the project.

Carla Maria Amici's consideration of the construction techniques (125–60) emphasizes the homogeneity of the wall construction with *bipedales*, except for the later addition of walls along the north-east corner, and the overall precision of the building process, notwithstanding some errors in execution of the design that were corrected during the work; the building sequence is graphically portrayed by a coloured representation of it (151–9). Alessandro Samuelli Ferretti surveys the structures and the mechanical properties of the material (161–225), drawing inferences about the structure from a comparison of the engravings by Etienne Du Pérac (1560) and Giovanni Rondelet (1810), and advocates proposals for the permanent consolidation of the building (227–57).

All the workings of the vast interior (7000 m^2) are explained in this book: its lighting, marble facing, staircases and balconies for maintenance, and problems during construction leading to the addition of reinforcing elements to the north under Constantine. In contrast to the focus of recent scholarship on the changes under Constantine, the authors of this volume emphasize continuity, rather than transformation. The position of the main entrance at the centre of the long south side, typical of basilicas, and emphasized by a tetrastyle pronaos of red porphyry columns and stairway, is considered to have been a feature of the Maxentian project, rather than the result of

a re-orientation of the building by Constantine, a view which has become commonplace in modern scholarship since Nibby. Likewise, the north, or so-called 'Constantinian', apse is understood as a later modification of the original project (57–60, 70 n. 16), but one performed to consolidate and reinforce the original design where the north wall had deteriorated: when it was resumed, presumably under Constantine, after the interruption of Maxentius' death, the wall decoration was left unfinished. Yet there remain some inconsistencies, as Samuelli Ferretti accepts the traditional interpretation of the apse as an addition by Constantine, while at the same time retaining the inverted commas (168).

The book is intended for scientists and researchers, and its uneven texture does not facilitate its presentation to a more general audience. Intriguing details about the building's materials and later uses are buried in endnotes. There is a wealth of supporting illustrations, photogrammetric images, and axonometric, virtual drawings. But the book lacks an overall evaluation of the building in its historical context. Archaeological details such as the building's brick facing and travertine corbels — strikingly similar to those of the Curia Julia rebuilt by Diocletian and Diocletian's Baths — help to place it in the context of the urban re-organization of Rome begun under the Tetrarchy. But the initial historical section is very concise in comparison with the later technical parts, with almost no discussion of the actual functions of the basilica, for example its possible use by the city prefect as a ceremonial meeting hall and courtroom (cf. H. Brandt, *Geschichte der römischen Kaiserzeit von Diokletian bis zum Ende der konstantinischen Dynastie* (1998), 69–72). Conceptually, the historical interpretation lacks the sophistication of the geological and structural analyses: the section on euergetism 'as a means of political propaganda' is very short and does scant justice to the theme (12). While it is good for an Anglo-American readership to see an important contribution published in English, the translation is convenient, rather than elegant, and the style generally wooden and sometimes repetitive (e.g. 23, 25: '. . .took an entirely different approach … had entirely different characteristics. . .', more tolerable in Italian than English).

That this book is little more than the sum of its parts is also reflected in the absence of a bibliography and index. There are some unfortunate errors: for example, the architect Viollet-le-Duc comes out as 'Voilet-le-Duc' (13), and it is an inconvenience to the reader that the numbering of notes in the main text of ch. 2 does not match that in the endnotes — due to the omission of note 1 in the text (21). This book is undoubtedly an important contribution to the recent increased understanding of the materials, structural qualities, and construction processes of Roman architecture. But its lack of overall homogeneity and direction means that the search for a full-length monograph on this important building is not yet complete.

Durham University EDMUND V. THOMAS

P. REHAK, *IMPERIUM AND COSMOS: AUGUSTUS AND THE NORTHERN CAMPUS MARTIUS* (ed. J. G. Younger). Madison: University of Wisconsin Press, 2006. Pp. xxvii + 222. ISBN 0-299-22010-9. US$60.00.

The Augustan regime left a deep imprint on the urban fabric of Rome, nowhere to more spectacular effect than the Campus Martius, which reduced the rest of the city, in the rhetoric of the contemporary Strabo, to a mere appendage (5.3.8). Focusing on a cluster of monuments in the northern Campus Martius, all much discussed and freighted with lengthy bibliographies, Rehak investigates the relationship between architecture and political authority and argues that this area stood apart from the rest of the city as an emphatic declaration of monarchy and cosmic power. Despite some flaws in its central thesis, *Imperium and Cosmos* offers several novel and arresting observations that will be of interest to scholars of Augustan Rome.

Following an overview of the monumental development of the Campus Martius during the Republic (ch. 2), three chapters on the Mausoleum and 'Ustrinum' of Augustus (ch. 3), the 'Horologium-Solarium' (ch. 4), and the Ara Pacis (ch. 5) form the core of the book. The chapter on the Mausoleum and 'Ustrinum' is the least successful. Most of the discussion is unexceptionable (it is, however, somewhat deflating to read through a lengthy survey of possible influences on the form of the Mausoleum (43–52), only to be told that the tomb of Augustus was 'eclectic' in design (61)), but the location of the Mausoleum had nothing to do with the 'tomb of Romulus', as R. suggests (36). The treatment of the 'Horologium-Solarium' is better. In addition to providing a clear account of how the sundial actually worked (68–9, 81–3), R. is very good on astrology and catasterism (69–74), the logistics of obelisk transport (90–1), and the complex monarchic,