

THE *COLUMNAE COC(H)LIDES* OF TRAJAN AND MARCUS AURELIUS

MARTIN BECKMANN

THE *CURIOSUM URBIS ROMAE* AND THE *NOTITIA URBIS ROMAE* ARE TWO LISTS of buildings and monuments in the imperial capital, compiled region by region, and dating to the late third and early fourth centuries respectively.¹ In them, the columns of Trajan and of Marcus Aurelius are called *columnae coc(h)lides*.² *Coc(h)lis*, a very rare word, is defined in the *TLL* (s.v.) as an adjectival usage of the noun of the same form, derived from the Greek word κοχλῖς, which itself is a diminutive form of κόχλος (LSJ s.v. κοχλῖς), meaning a snail-shell. The implication is that the columns are snail-shell-like. Two features of the columns could conceivably have warranted such a description: the external sculpted frieze, which runs up the column in a spiraling manner from bottom to top, or the internal spiral staircase, which runs the height of the column and provides access to a viewing platform on top of the wide capital.

There is a trend in recent scholarship to interpret this adjective as referring to both the frieze and the stairs.³ This is contrary to the interpretation of the word current before the twentieth century and, I argue here, mistaken, for an examination of the sources indicates that *coc(h)lis* refers to the stairway alone. This raises the question of why the stairway was singled out for such attention. The explanation, I suggest, has to do with a number of factors, including admiration of the technical achievement of the columns and the rarity of spiral staircases in Rome in the second century A.D.

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¹ *Curiosum urbis Romae* and the *Notitia urbis Romae*: see Jordan 1871–1907: 2.2.539–574. Richardson (1992: xx) follows Nordh 1949 in dating the *Curiosum* to the time of Diocletian, the *Notitia* to the reign of Constantine.

² For example, from the *Curiosum*: *REGIO VIII FORVM ROMANVM MAGNVm continet / rostras III / Genium p. R. / senatum / atrium Minervae / forum Caesaris / Augusti / Nervae / Traiani / templum / Traiani / et columnam cochlidem / altam pedes CXXVII s. / gradus intus habet / CLXXX / fenestras XLV*, and *REGIO IX CIRCVS FLAMINEVS continet [. . .] templum Antonini / et columnam cochlidem / altam pedes CLXXV s. / gradus intus habet CCIII / fenestras LVI*. The *Notitia* uses the spelling *cochlidem*.

³ Platner and Ashby 1929: 132; Valentini and Zucchetti 1940: 115, n. 2; Colini 1955; Maffei 1993: 303; Martines 2000: 39. Exceptions to this trend are Richardson (1992: 95), who takes *coc(h)lis* as referring to the frieze alone, and Lepper and Frere (1988: 13), who take it as referring to the stairs.

I THE MEANING OF COC(H)LIS

Recent interpretations of the word *coc(h)lis* have been based on two main ancient sources, each of which employs the word *coc(h)lea*, related to *coc(h)lis*, in different contexts. That it denotes a spiral stairway is usually supported by reference⁴ to a passage of Isidore of Seville, dating to the early seventh century: *cocleae sunt altae et rotundae turres et dictae cocleae quasi cycleae, quod in eis tamquam per circulum orbemque conscendatur* (Orig. 15.2.38): “*cocleae* are high, round towers and they are called *cocleae* like *cycleae*, because in them one ascends just as through a circle and a coil.” Isidore’s concept of a *coclea* is clear: a tall round tower with a spiral staircase inside, called a *coclea* specifically because of these stairs.

The alternative interpretation of *coc(h)lis*, that it refers to the external frieze, rests on a passage of Celsus,⁵ who in describing the process of setting a particular type of fracture wrote: *fere vero fasciis sex opus est. prima brevissima adhibenda, quae circa fracturam ter voluta, sursum versum feratur et quasi in cocleam serpat* (Med. 8.10.1.E): “Usually, indeed, six bandages are needed. The first and shortest bandage to be applied, which makes three turns around the fracture, ought to be wrapped up and down and ought to wind as if to form a *coclea*.” The image also appears to be clear in this case: a flat bandage is being wrapped around a cylindrical object (a limb), and this seems strongly reminiscent of the band of continuous sculpture that winds up both columns.

These two passages seem to provide strong evidence for one or the other of the interpretations of the word *coc(h)lis*, but it is misleading to consider them in isolation. The uses of *coc(h)lea* (and its Greek cognate κοχλίας) to refer to a spiral staircase are not confined to Isidore. In the Vulgate (A.D. 400), Kings 6.8 describes access to various levels in Solomon’s new temple using the words: *per cocleam ascendebant in medium cenaculum et a medio in tertium*; Placidus (CGL 5.351.43) in the fifth or sixth century A.D. provided the gloss: *coclea ascensus qui circiit*: “a *coclea* is an ascent which circles.” Procopius provides a parallel definition in Greek. During the Nika revolt in Constantinople in A.D. 532 the loyal general Mundus made a sortie from the palace via a gate called ὁ κοχλίας; Procopius adds the explanation ὁ κοχλίας ἀπό τῆς καθόδου κυκλοτεροῦς οὐσης ὠνόμασται (Pers. 1.24.43): “the κοχλίας is so called because of its circling descent.” This reference is of particular interest, since it gives an example, much in the same way as Isidore’s reference, of a larger structure being called a κοχλίας on the basis of its containing a spiral passage. Finally, but less certainly, Strabo (17.1.10) may provide an earlier example of this use of κοχλίας, when he describes the Paneion at Alexandria as a man-made hill looking like a rocky mound with the shape of a pine-

⁴ Cited by Platner and Ashby, Valentini and Zucchetti, Colini, and Maffei (above, n. 3).

⁵ Cited also by all of the above (n. 3).

cone, διά κοχλίου τὴν ἀνάβασιν ἔχον: “having an ascent by means of a κοχλίας.”⁶

Other uses of both *coc(h)lea* and κοχλίας are also attested (that is, outside their more standard reference to a snail or snail-shell).⁷ One of the earliest alternate uses (and for our purposes the most important) is the application of the word κοχλίας to the water-raising screw invented by Archimedes.⁸ Vitruvius (*De arch.* 10.6) provides a detailed description of the construction of such a water-screw. First, strips of wood are fixed in a spiral around a central pole so that “they make channels and a true and natural imitation of a *cochlea*.”⁹ Then, these channels are covered over to seal them into a tube. From this it is clear that the aspect of the *cochlea* being imitated is the internal passage that forms the home for the animal. In appearance, this device would be very similar to the columns: tall and round on the outside, with spiralling channels on the inside. Other references to *coc(h)leae* use the term to describe the grooves in the upright beam of a screw-press,¹⁰ and curving shelter-holes at the bottom of a fishpond.¹¹ None, besides the Celsus reference already cited, refer to any form of spiral band winding around the outside of a cylinder (or any other object).¹² From these examples, it appears that when the Romans thought of a *coc(h)lea*, they thought first and

⁶ Strabo may refer to a spiral stairway (or similar passage) within the mound itself (LSJ, s.v. κοχλίας, Orlandos and Travlos 1986: 160), but the ἀνάβασιν has also been interpreted as an external road winding up the mound (as by Jones [1923]). The former interpretation may be given more weight if it is considered that Strabo elsewhere (17.1.30; 16.1.5) uses the word κοχλίας to describe the water-raising screw of Archimedes, a device quite similar in shape to a spiral stair or passageway; Orlandos and Travlos (1986: 160) cite the latter reference defining κοχλίας as a spiral stair, but Strabo seems rather to be referring to water-raising screws located beside ordinary stairways.

⁷ TLL III.1396.30–86; LSJ s.v. κοχλίας. Orlandos and Travlos (1986: 160) offer three architectural definitions for κοχλίας: screw press, water-screw, and spiral staircase; these are discussed below.

⁸ Diod. Sic. 5.37.3, 1.34.2; Strabo 17.1.30; Athenaeus (5.208) reports its use as a bilge-pump on the great ship Syracusia. Its use by Frontinus in *Aqueducts* 129.11 is also likely: see Rogers 1983: 136, proposing on grounds of logic that *coclea* be read for *calice*. My thanks to one of the anonymous *Phoenix* referees for having brought this to my attention.

⁹ . . . *faciunt canales et iustam cocleae naturalemque imitationem* (*De arch.* 10.6.2). The resulting spiral is much less tight (one complete turn in a distance of eight times the diameter of the central cylinder) than that of the columns' stairs (one turn in a distance about three times the diameter of the central support). Diodorus (1.34.2) says much the same: that such a screw is called a κοχλίας because of its shape (ὀνομάζεται ἀπὸ τοῦ σχήματος κοχλίας). Modern German carries on this tradition by calling Archimedes' screw a *Wasserschnecke*.

¹⁰ Pliny describes the grooves as *per cocleam ambulantiibus* (*NH* 18.74.317); Vitruvius (*De arch.* 6.6.3) calls the grooves themselves *cocleae*.

¹¹ Columella (*Rust.* 8.12.2) recommends the construction of *specus . . . in cocleam retortos, nec nimis spatiosos, in quibus muraenae delitescant*.

¹² Where objects similar to the columns are mentioned (a very rare event), the terms *coc(h)lea*, κοχλίας, or any of their variants are not used: the famous Spartan code-staff, the σκυτάλη, has its message strip-wrapped round in a κύκλος (Plut. *Lys.* 19.5); Quintius Curtius Rufus (8.9.26) describes the vine-wrapped columns in the palace of an Indian king, saying *regia auratas columnas habet: totas eas vitis auro caelata percurrit*. For a survey of known examples of such columns, see Chapot 1907:

foremost of an internal spiral passageway or cavity, not of any sort of external banding.

What then of Celsus? It is important to note that Celsus does not actually call his bandage a *coc(h)lea*, but rather only implies that it climbs in the manner of one. While the *Notitia* and *Curiosum* employ *columnam coc(h)lidem* as a technical term to refer to a specific type of column, Celsus is employing nothing more complicated than a simile, based on the idea of winding conveyed by the word *cocleam*. It is this vivid image, Celsus' *fascia* executing a spiral movement around a cylindrical object, which appears to have captivated the minds of some scholars and caused an instant connection to be made with the spiralling frieze of the columns.¹³ The internal passageway of a snail shell climbs as surely as the spiral pattern on its exterior, and *in cocleam* may be translated "into a *coclea*" as well as "in the manner of a *coclea*." The imagery would then be of the bandage winding its way into the empty internal space of the snail-shell. It is also perhaps worthy of note that the *fascia* of Celsus will eventually end up inside a mass of other bandages, and thus become an internal feature.¹⁴

II ANCIENT REFERENCES TO THE COLUMNS

Ancient references to the columns of Trajan and Marcus Aurelius are relatively scarce, but nonetheless help to put the use of the word *coc(h)lis* into a firmer context. The earliest reference is in two inscriptions, which date to 193 and record the privileges and responsibilities given by imperial consent to a certain Adrastus, *procurator* of the column of Marcus Aurelius.¹⁵ In these inscriptions the column is referred to as *columna divi Marci* or *columna centenaria*, or a combination of both. The latter reference, *centenaria*, is to the height of the column shaft itself: one hundred Roman feet (= 29.62m). This interest in height is also reflected in the *Notitia*, the *Curiosum*, and in the references of Cassiodorus

74–79. *Cochlis* appears used as an architectural term in two Latin inscriptions, one of which refers to a *piscinam novam nomine cocleam* at Thuburbo Maius, Tunisia (Merlin 1917: 75; *AE* 1917/18, 98 = *ILAfr* 285, translated in Fagan 1999: 280–281), another to a vague *opus cochli[s]* in Turkey (*AE* 1903, 256); neither of these sheds light on the precise meaning of the term in an architectural context. While Merlin (1917: 74) speculated that the *piscinam novam nomine cocleam* in Thuburbo Maius may indicate a characteristic of the architecture or decoration of the pool, he was unable to find evidence through excavation to resolve the question.

¹³ Platner and Ashby (1929: 132) may be the original source of the common modern dual interpretation, as they appear to be the first to cite Celsus in support of the frieze argument.

¹⁴ My thanks to C. Simpson for this suggestion.

¹⁵ *CIL* VI.1585a and b = *ILS* 5920. For a recent examination, with a focus on the administrative aspects of the inscription, see Daguet-Gagey 1998. The very earliest reference of any sort is, of course, the depictions of the column of Trajan on that emperor's coinage (e.g., Mattingly 1936: 3.449, pl. 14.19; 972, pl. 38.3). Although in this paper I argue for the prominence of the stairway in the minds of the Romans, I am not inclined to accept Claridge's (1993) argument that it is the stairway which is represented by the spiral decoration of the column on these coins.

and Eutropius.¹⁶ A passage in Ammianus Marcellinus underscores this. As he describes the structures which caught Constantius' attention during his visit to Rome in A.D. 357, Ammianus remarks on the *elatosque vertices scansili suggestu concharum, priorum principum imitamenta portantes*: "and the exalted heights with rising platforms of conch-like quality bearing likenesses of previous emperors."¹⁷ Such "heights," bearing statues of emperors and graced with viewing platforms, cannot be paralleled by any known monuments except the columns of Trajan and Marcus Aurelius.¹⁸

In the city of Constantinople there existed two monuments very similar to the columns in Rome: the columns of Theodosius and of Arcadius, both of which were decorated with a spiral frieze on the exterior and provided with a spiral staircase on the interior. The *Notitia urbis Constantinopolitanae* (late-fourth- to early-fifth-century) uses the following terms to describe these monuments: *columnnam . . . intrinsecus usque ad summitatem gradibus perviam*, "a column accessible by stairs inside up to the summit," and *columnnam . . . intra se gradibus perviam*, "a column accessible by means of stairs inside it."¹⁹ These same columns are also referred to using the terms *cochlis* and *κοχλιάς* in sources of the sixth and seventh centuries.²⁰

Finally, there is one further ancient source which refers specifically to the columns neither of Rome nor of Constantinople, but which nonetheless has a bearing on both. The author of the *Life of Elagabalus* included in the *Historia Augusta* (24.7) recounts Elagabalus' supposed desire to erect a columnar monument to himself: *constituerat et columnam unam dare ingentem, ad quam ascenderetur intrinsecus, ita ut in summo Heliogabalum deum collocaret*. Although

¹⁶ Cassiodorus writes of Trajan, *cuius columnae altitudo in CXL pedes erigitur* (*Chron.* 2 p. 141, 766); Eutropius, also referring to Trajan, says *ossa eius, collocata in urna aurea in foro, quod aedificavit, sub columna sita sunt: cuius altitudo CXLIV pedes habet* (*Breviarium* 8.5).

¹⁷ Amm. Marc. 16.10.14, Teubner edition of W. Seyfarth. I take *concharum* as a genitive of quality; Seyfarth (1968: 179) translates this passage: "die hochrangenden Säulen mit ihren im Innern nach oben führenden Wendeltreppen." The text is disputed; K. Erfurdt's 1808 edition has *elatosque vertices qui scansili suggestu consurgunt . . .*. The word *concharum*, though awkward in this context, is strongly reminiscent of *cochlis* (again, shell imagery) and may refer to the form of the passage providing the ascent to the platform.

¹⁸ One other use of the word *coc(h)lis* is found in Polemius Silvius (writing in southern France in the fifth century), who includes *columnae cochlides* in his list of buildings at Rome; unfortunately he offers no further commentary on the columns. Richardson (1992: xx) notes that Silvius may have drawn on sources such as the *Curiosum*, and thus this wording may be more imitative than descriptive.

¹⁹ *Not. Urb. Const.* 8.13–14; 13.10–11 (in Seeck 1876).

²⁰ Marcellinus Comes (sixth century) in his *Chronicon* (2.480.92.8) relates how in the year 480 *statua Theodosii Magni in foro Tauri super cochlidem columnam posita corruit*. Writing later, the author of the seventh-century *Chronicon Paschale* describes the dedication in 421 of a statue of Arcadius ἐστὼς ἐπάνω τοῦ κοχλίου τοῦ κίονος in his forum (Dindorf 1832: 579). The syntax is unusual: it may be read "standing on top of the κοχλιάς of the column," or "standing on top of the κοχλιάς, that is to say, the column." That is, the word may refer to the feature of the column called a κοχλιάς (presumably, following the argument here, the stair), or to the column as a whole.

this anecdote is fictional,²¹ the appealing features of the monument are clear: a tall column, a stairway inside, and a statue on top.

In sum, of all ancient references to the columns of Trajan and Marcus Aurelius (and to their counterparts in Constantinople), none make reference to the sculpted frieze. To the ancient authors, the noteworthy aspects of these monuments are their height, the statues atop them, and their internal stairways, by means of which one could ascend to their capitals. This ancient understanding of *columnam cochlidem* is reflected in the work of medieval and Renaissance topographers. The term appears in the medieval *Mirabilia*, travellers' guides to the city which were themselves in part derived from the *Curiosum* and the *Notitia*.²² The clearest evidence that the ancient understanding of *cochlis* persisted is provided by Pierre Gilles, a sixteenth-century traveller to Constantinople. Gilles was quite aware that it is not external sculpture that makes a column a *columnam cochlidem*, as he shows by his description of the porphyry Pillar of Constantine: "haec columna porphyretica non gradibus pervia est, sed solida. itaque falso tradit Fulvius antiquarius coclide esse."²³ "This porphyry column not does have stairs in it, but is solid. Thus Fulvius the antiquarian²⁴ wrongly called it *coclide*."

III SPIRAL STAIRS

None of our sources tell us why exactly the stairs in the columns were considered worthy of special attention, but at least three explanations can be suggested with some confidence. The first is that the stairway, cut inside the otherwise solid shaft of a column, represented a remarkable technical achievement. Such a project had never before been attempted. The stairway required very careful planning, especially because a remarkably inconvenient ratio of fourteen steps-per-turn was chosen over one of twelve or sixteen steps, which would have been much simpler to execute.²⁵ The importance of the stairway to the overall design of the *columna*

²¹ Fowden (1991) has argued that this passage was a carefully constructed insult directed at Constantine's own porphyry pillar in Constantinople, which was not graced with such a stairway.

²² For example, from a twelfth-century version of the *Mirabilia* (Urlichs 1871: 98): "columnna Antonini coclidis habet in altum pedes CLXXV, gradus numero CCIII fenestras XLV. columnna Traiani coclidis habet in altum pedes CXXXVIII, gradus numero CLXXXV, fenestras XLV."

²³ *De topographia Constantinopoleos* 3.3. Gilles's description (1561) of the column of Arcadius offers a rare if not unique example of the noun *coclea* (but not of the adjective *cochlis*) being used in reference to an external feature of the columns: "toro superest apoghygis, deinde incipit scapus columnae scalptus pugnīs variis, sculptura procedit in modum columnae, quae Romae Traiano sacra est inter elices binas cochleae more surgentes" (*ibid.* 4.7). Gilles's description of the two helixes (the borders of the frieze) rising "cochleae more"—"in the manner of a *cochlea*"—is comparable to Celsus' use of the word (a simile, distinct from the technical use of the adjective *cochlis* in describing the column itself).

²⁴ One of the anonymous *Phoenix* referees has kindly suggested to me that this Fulvius is Andrea Fulvio (ca 1470–1527), on whom see Weiss 1959.

²⁵ Wilson Jones 1993: 30–31. Twelve or sixteen steps can be easily planned by further dividing a quartered circle; fourteen steps cannot.

coc(h)lis is underlined by the way in which the designers of the column of Marcus Aurelius copied the dimensions of the stairway in Trajan's column with great fidelity, while at the same time taking liberties with other aspects of the design.²⁶ Even the construction of the columns would have been a substantial technical challenge, as blocks weighing as much as 77 tons had to be raised to heights of over 100 Roman feet and at the same time positioned with precision.²⁷

A second factor may well have been the rarity of spiral staircases in Rome. Besides the columns, two such stairways are found in the Baths of Caracalla (A.D. 212–216), four in the Baths of Diocletian (298–305), and one in the Mausoleum of Constantia (ca 350).²⁸ The towers of the Aurelian walls of Rome (built 271–279), which might be potential candidates for Isidore's *altae et rotundae turres*, contain no spiral staircases at all (nor are any of them entirely round). Instead, the standard tower is solid to the level of the rampart, then contains a chamber with straight flights of stairs to the upper levels; access to the towers could only be gained from the ramparts, themselves accessible only at the gates.²⁹ This is in keeping with the tradition of Roman stone and brick fortification in general, where there seems to have been no use made of spiral stairs in towers round or otherwise.³⁰ In other buildings outside of Rome, spiral staircases are similarly uncommon: there is, for example, one spiral staircase in the third-century A.D. Round Temple at Ostia,³¹ two in the Mausoleum of Galerius at Thessalonike (early fourth century), and eight in the Imperial Baths at Trier (also of the early fourth century).³² It appears that spiral staircases were used by the Romans mainly in massive brick buildings, only from the third century onwards, and never in towers.³³ The two column staircases in Rome were, in their time, almost unique.

The absence of spiral staircases in the city of Rome prior to this date raises the question of possible precedents for the column staircases. Very few spiral staircases are known which date before the second century A.D. The earliest are likely those in Temple A at Selinus, which dates to the 480s B.C.³⁴ While staircases in the

²⁶ The stairway, writes Wilson Jones (1993: 38), "was the part copied most faithfully."

²⁷ For the possible construction techniques of Trajan's column, see Lancaster 1999.

²⁸ See relevant entries in the *Lexicon topographicum urbis Romae*. The spiral staircases in the Baths of Caracalla are both located in the north (external) wall of the *caldarium*; those in the Baths of Diocletian are in various locations.

²⁹ Todd 1978: 32–34; see figs. 12, 15, 16, and 19 for illustrations of Aurelian towers.

³⁰ None are illustrated in Lander's (1984) survey of Roman stone fortifications, nor in Johnson's (1983) examination of late-Roman fortifications. For a discussion of circular towers in general, see Lander 1984: 228–244; for selected illustrations, see Johnson 1983: figs. 4, 5, 8–14, 18–22.

³¹ See Briggs 1930: pls. 53 and 57.4. Meiggs (1973: 81) proposes the date of Septimius Severus to Gordian III (a statue of whose wife was found therein).

³² Ward-Perkins 1981: figs. 306 (Mausoleum) and 302 (Baths).

³³ Formigé's (1949) reconstruction of the Trophy of Augustus at Turbie includes five spiral staircases, but the basis for this reconstruction is not made clear. There is a single fragment of travertine carved with three steps of a spiral staircase lying near the Arch of Titus in the Roman Forum, but date and provenance are unknown.

³⁴ For illustrations, see Mertens 1984: fig. 37; Ginouvès 1998: pl. 86.3.

cellae of Greek temples are not uncommon, the spiral examples at Selinus are unique among them. Moreover, their unusual form, with curving edges on each step, is not reflected in any later staircases. One further early example occurs in the temple of Bel at Palmyra, which is commonly dated to the first century A.D. (although a date in the second to third century has been suggested for parts of it).³⁵ While it is possible that the designer of Trajan's column was aware of these (and perhaps other) spiral staircases, it is not necessary to suppose this. The primary reason for choosing a spiral staircase was that this is the only stairway possible in such a restricted space. On the other hand, one wonders whether the column staircases might have influenced later architects, since it seems that it is only after the construction of the columns that spiral staircases appear in other buildings in Rome.³⁶

Finally, the staircases may have been singled out for attention because of their function in getting visitors up to the viewing platform atop the columns. The exact meaning to the ancient Romans of this function of the columns is unclear. From the top of the column of Trajan, a person would have been able to inspect from an unparalleled vantage point the entire layout of Trajan's vast new forum, and thus appreciate fully his incredible accomplishment.³⁷ In the case of the column of Marcus Aurelius, the effect would have been similar, but this time the view would have encompassed the Antonine funerary monuments of the Campus Martius: for example, the column of Antoninus Pius and at least three major funerary altars. It has recently been suggested that the upper exit from the stairway in this column was purposefully designed so that the visitor would come out on the platform directly facing the funerary altar of that emperor.³⁸ How often the stairways were actually used, however, and who was allowed to ascend them, is not known. The steps inside Trajan's column are only moderately worn, suggesting limited access—which is perhaps not surprising, considering the role of the column as a resting place for Trajan's ashes, contained in a separate chamber in the base.³⁹ Still, even if not many Romans had the opportunity of

³⁵ For illustrations see Ginouvès 1998: pl. 20.1; Lyttelton 1974: fig. 22. The temple is dated by an inscription to the year A.D. 32 (Lyttelton 1974: 93), but Murray (1917: 24) argues that the thalamoi (which the temple staircases flank) ought to be dated to the second or third century based on their architectural decoration. Lyttelton (1974: 93–96, 193–195) argues that the thalamoi, if later, are only somewhat so and still date to the first century A.D.

³⁶ The influence could not have been instant: the Baths of Trajan and the Pantheon of Hadrian all employ flights of stairs with landings, even in restricted, oddly shaped areas like angles and corners, where in later structures spiral stairs were sometimes used.

³⁷ The inscription on the base of the column suggests that this was one of the column's purposes: *ad declarandum quantae altitudinis / mons et locus tan[tis oper]ibus sit egestus* (CIL VI.960 = ILS 294): "to declare of what height was the mountain and location removed by such great work." The exact meaning of this phrase is unclear, but the viewing platform would have helped a visitor to appreciate the scope of the work on the forum.

³⁸ See Davies 2000: 167–169. The alignment of the door appears not to be a coincidence, but there is no firm evidence for the identification of the altars which the sightline intersects.

³⁹ See photo of lower flights in Coarelli 2000: fig. 17. I am not aware of the condition of wear of the steps in the column of Marcus Aurelius.

climbing the stairs, this does not mean that the stairs did not have a specific and important function, or that contemporaries were unaware of that function.⁴⁰

CONCLUSION

When the column of Trajan was built it was remarkable for three major reasons: its size, the fact that Trajan's remains were interred in its base, and the fact that it contained a spiral staircase. Marcus' column dispensed with the tomb (the emperor's ashes were laid to rest in the Mausoleum of Hadrian), but retained the spiral staircase and increased the overall height (by stretching the base; the height of the column itself, 100 feet, remained the same). These two features, the size of the columns and their spiral stairs, were noted by the writers of the *Notitia* and *Curiosum*, the former by the provision of measurements and the latter by the use of the term *columnae cochlides*. The reason that the stairways attracted such attention likely had to do not only with their novelty, but also with their function, and with a general admiration for the technical achievements that the columns represented.

DEPARTMENT OF CLASSICS
McMASTER UNIVERSITY
HAMILTON, ONTARIO
L8S 4M2

mbeckmann71@hotmail.com

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⁴⁰In the Middle Ages, at least for the column of Marcus Aurelius, the function of the stairs may have been one of fund-raising. An inscription of the year A.D. 1119 in the church of S. Silvestro gives evidence that the column was leased and that revenue was derived from it for the lease holders. Lanciani (1897: 507) suggested that this revenue may have come from pilgrims and tourists wanting to ascend the monument. For the inscription, see Petersen 1896: 4, n. 1 and, for a translation, Gregorovius 1903: 686–687, n. 1.

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