

THE HIPPODROME AT THESSALONIKI

By MICHAEL VICKERS

The hippodrome at Thessaloniki is well known as the scene of the bloodbath of A.D. 390, so vividly described by Gibbon. This occurred when the emperor Theodosius, enraged that his *magister militum* Buthericus had been killed in a riot, enticed people into the hippodrome by the promise of games, and had between 7,000 and 15,000 put to death.¹ But apart from the events connected with this incident, the ancient sources are silent concerning the hippodrome (with the exception of a single inscription which will be discussed below). This important monument of the ancient city must be reconstructed indirectly, therefore, by employing the accounts of eighteenth- and nineteenth-century travellers, and by examining recent archaeological finds in the light of the mediaeval city-plan and of what is known of hippodromes elsewhere in the Roman world.

The earliest modern reference is by the Abbé Belley, who visited Thessaloniki around 1777. In his day it was 'une grande place entourée de maisons et garnie d'arbres'.² In 1800 F. de Beaujour considered the area to be 'le beau quartier de Thessalonique'. In his account of the place he speculates on the hippodrome's original dimensions and appearance, but the only factual information he imparts is that 'une file d'arceaux' could still be seen in his day along the western side.³ M.-É. Cousinéry, French consul at Thessaloniki from 1783 to 1793 and from 1814 to 1818, noted that there were dye-shops set up in the remains,⁴ but they can have done little to detract from the charm of the area, for in 1883 we find a local schoolmaster describing the place as a square some 300 paces long and 40 broad 'adorned with plane trees and smaller trees as well'.⁵

The hippodrome area had always, even under Turkish rule, been occupied mainly by Greeks, and this goes a long way towards explaining why the ancient name, or a derivative of it, has lasted to this day. In the twelfth century Archbishop Eustathius referred to the hippodrome in terms which suggest that the site was then used for political meetings.⁶ Belley and Cousinéry observed that the area in which the hippodrome was situated had retained its name over the centuries, and both M. Dimitsas⁷ and P. N. Papageorgiou⁸ say that in the late nineteenth century the traditional name of the area was *Prodromi*.

Before discussing the information derived from excavation, there is one important piece of evidence that ought to be mentioned. It is contained in a plan of the city made during the Great War by the Service topographique des Armées alliées for the British Army,⁹ which shows a row of structures along the western side of the hippodrome area (A-B on Fig. 1)¹⁰ which presumably correspond to de Beaujour's 'file d'arceaux'. More information was forthcoming in the excavations made in the hippodrome by E. Dyggve in 1939, but which were never properly published, except in reports of a preliminary nature. Already in 1935, H. Johannes and H. von Schoenebeck, of the German Archaeological Institute, had studied the visible structures, which by that time had become the cellars of private houses, and though they did not conduct excavations, they came to the conclusion that the hippodrome

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¹ E. Gibbon, *The Decline and Fall of the Roman Empire*, ed. J. B. Bury (1900), 172-3. The sources are now discussed in detail by I. Hahn, 'Η ξέγερση τοῦ 390 στήν Θεσσαλονίκη καί τὸ ἱστορικὸ τῆς πλαιοῖο, *ByzNG* XIX (1966), 350-372. See also R. Browning's attractive suggestion (*CR* n.s. XXI, 1971, 138) that Amphilochius Iconiensis, *Iambi ad Seleucum* 172 ff. might well refer to Theodosius' punitive measures in 390.

² 'Observations sur l'histoire et sur les monuments de la ville de Thessalonique', *Histoire de l'Académie Royale des Inscriptions et Belles-Lettres* XXXVIII (1777), 134.

³ *Tableau de Commerce de la Grèce* (Paris, 1800), 37,

followed by E. D. Clarke, *Travels in various countries of Europe, Asia and Africa*, 4th ed., VII (London, 1818), 454.

⁴ *Voyage dans la Macédoine* (Paris, 1831), 34.

⁵ M. Moraïtopoulos, Τοπογραφία Θεσσαλονίκης (Athens, 1883), 16-17 (cited by O. Tafrafi, *Topographie de Thessalonique*, Paris, 1913, 129).

⁶ 'Καί ἔως μὲν καί τοῦ πολιτικοῦ καθ' ἡμᾶς ἱπποδρόμου τοιαύτη διάθεσις ἡμᾶς εὗθunen' *De Thessalonica a Latinis capta* (ed. Bonn, 463); cf. G. Theocharides, *Hellenika XIII* (Thessaloniki, 1954), 29, n. 1.

⁷ 'Η Μακεδονία ἐν λίθοις φθεγγόμενοις σωζόμενοις' (Athens, 1896), 412.

⁸ *Byz. Zeit* VI (1897), 538.

⁹ 'Plan of Salonica', 1: 10,000.

¹⁰ I have drawn out the various features mentioned in the text against a plan made before 1917 (kindly supplied by Professor Ch. Bouras) since it is much closer to the mediaeval, and hence the Roman, city plan.

should be dated to the time of Galerius.¹¹ Dyggve made several soundings and detected that the vaults in the cellars had originally supported the hippodrome seats, traces of which were still preserved.¹² At some point along the western side of the hippodrome he discovered what he called the *Kaiserloge*, a building decorated with elegant polychrome marble revetments articulated with small marble columns. He also found the thick layer of coarse gravel which formed the surface of the original running track.¹³ The only plan of the hippodrome that Dyggve published is merely schematic, but from it we gather that he thought of the curved end as lying to the north.¹⁴

Since the last war a great deal of building has gone on in the hippodrome area. Old houses have been pulled down and replaced by tall apartment blocks. Many of the surviving remains of the hippodrome have inevitably been destroyed,¹⁵ but two or three portions of the ancient structure have been published in the past few years.

Further traces of what appears to have been a double row of barrel vaults (smaller inside, larger outside) were found over the years, and are included in a recently published plan of the palace area.¹⁶ Then in about 1963, at the corner of Odos Tsimiski and Odos Romanou, part of the marble podium that originally surrounded the hippodrome track was found (C on Fig. 1). It consisted of the two lowest courses of ashlar masonry decorated, if that is the word, with an extremely plain chamfer. The uppermost blocks were joined together with Π-shaped clamps. About 1.25 m in front of the podium and at a lower level, there ran a small drain of rectangular section covered with tiles.¹⁷

A further section (D on Fig. 1) about 24 m long was found shortly afterwards, partly underlying, or so it would appear, the foundations of the eastern city wall. Again the two lowest courses of the podium were discovered *in situ*; in addition a marble block was found lying on top of part of the rubble foundation which could perhaps indicate the original height of the podium (approx. 1.8 m).¹⁸

As will be seen below, the hippodrome was built as part of the tetrarchic palace complex. The simple chamfer on the base of the podium¹⁹ is very similar to the mouldings of several contemporary buildings elsewhere in the Roman world. In the Palace of Diocletian at Split,²⁰ chamfered mouldings are to be found on the entablature of the Peristyle, and on the bases of the podia of the Mausoleum and of the Temple. They occur too on the podia of the columns of the external colonnade of the Mausoleum and on the socles which once supported statues above the Porta Aurea, as well as on the piers of the recently excavated substructures of the palace.²¹ The same feature is to be found on buildings of tetrarchic date in Egypt: on the gates of the legionary fortress at Luxor, and on the gate of Philae.²²

Before discussing the other, more elusive, traces of the hippodrome preserved in old plans of the area, a few words are called for on the special devices that were employed in

¹¹ E. Dyggve, 'Compte-rendu succinct des fouilles de Thessalonique 1939', *RACrist* xvii (1940; below, = Dyggve, 1940), 150; id., 'Kurzer vorläufiger Bericht über die Ausgrabungen im Palastviertel von Thessaloniki', *Laureae Aquincenses Val. Kuzinsky dicatae* II, *Diss. Pannon.*, 2nd ser., xi (Budapest, 1941; below, = Dyggve, 1941), 66.

¹² The interior of one of the vaults is illustrated in Dyggve, 'La région palatiale de Thessalonique', *Acta Congressus Madvigiani* (1954) I (Copenhagen, 1958), 356, fig. 3.

¹³ Dyggve, 1941, 66 and pl. 5, fig. 16.

¹⁴ Dyggve, 1940, 150; Dyggve, 1941, 63; *BCH* LXIII (1939), 313, fig. 25; *AA* 1940, 255, fig. 66; *Gnomon* xvii (1941), 230.

¹⁵ cf. Ph. Petsas, *Makedonika* vii (1967), 297.

¹⁶ Ph. Papadopoulou, *ADelt* xix (1964), B'3, fig. 4 opp. p. 330.

¹⁷ Ph. Drosoyanni, *ADelt* xviii (1963), B'2, 244-6, figs 4-6, pl. 276a. Petsas, *ADelt* xxiv (1969), B'2, 295-6, fig. 2, pl. 305c-d.

¹⁸ Petsas, *ADelt* xxiii (1968), B'2, 332-4, fig. 6, pl. 279; id. *Makedonika* viii (1969), 151, pls. 50-3.

¹⁹ Clearly visible, *ibid.*, pl. 51a.

²⁰ Diocletian's decision to retire to Split can only have been taken at the end of the Persian wars (297

at the soonest and the palace, or more properly *villa* (cf. N. Duval, *Urbs* iv (Split, 1961-2), 70), must have been incomplete when the emperor first occupied it in May, 305 (cf. H. Kähler, *Mullus, Festschrift für Th. Klauser* = *JbAC* Ergh. I (1964), 176-7). The Tetrarchic mint at Thessaloniki seems to have opened in c. 298/9 (*RIC* vi, 501), which implies that work on the palace had begun then. Diocletian is thought to have attended the dedication of Galerius' triumphal arch on his way west from Nicomedia to Rome in c. 303 (W. Seston, *Dioclétien et la Tétrarchie* I (1946), 392), and I hope to show elsewhere that work on the palace at Thessaloniki was still in progress in 311.

²¹ E. Hébrard and J. Zeiller, *Spalato, le palais de Dioclétien* (Paris, 1912), figs on pp. 66, 76, 78, 100. The Porta Aurea socles are discussed by Kähler, *Das Fünfsäulendenkmal für die Tetrarchen auf dem Forum Romanum* (1964), 6-7, fig. 1, and the substructures of the palace by T. Marasović, 'Gli appartamenti dell'Imperatore Diocleziano nel suo palazzo a Split', *Acta of the Norwegian Institute in Rome* iv (1969), 35-37, pls 10, 12, 13a, 15b.

²² Luxor, U. Monneret de Villard, *Les couvents près de Sohag* (1926), fig. 168. Philae, id., *La Nubia romana* (1941), 8-9, figs. 4-7.

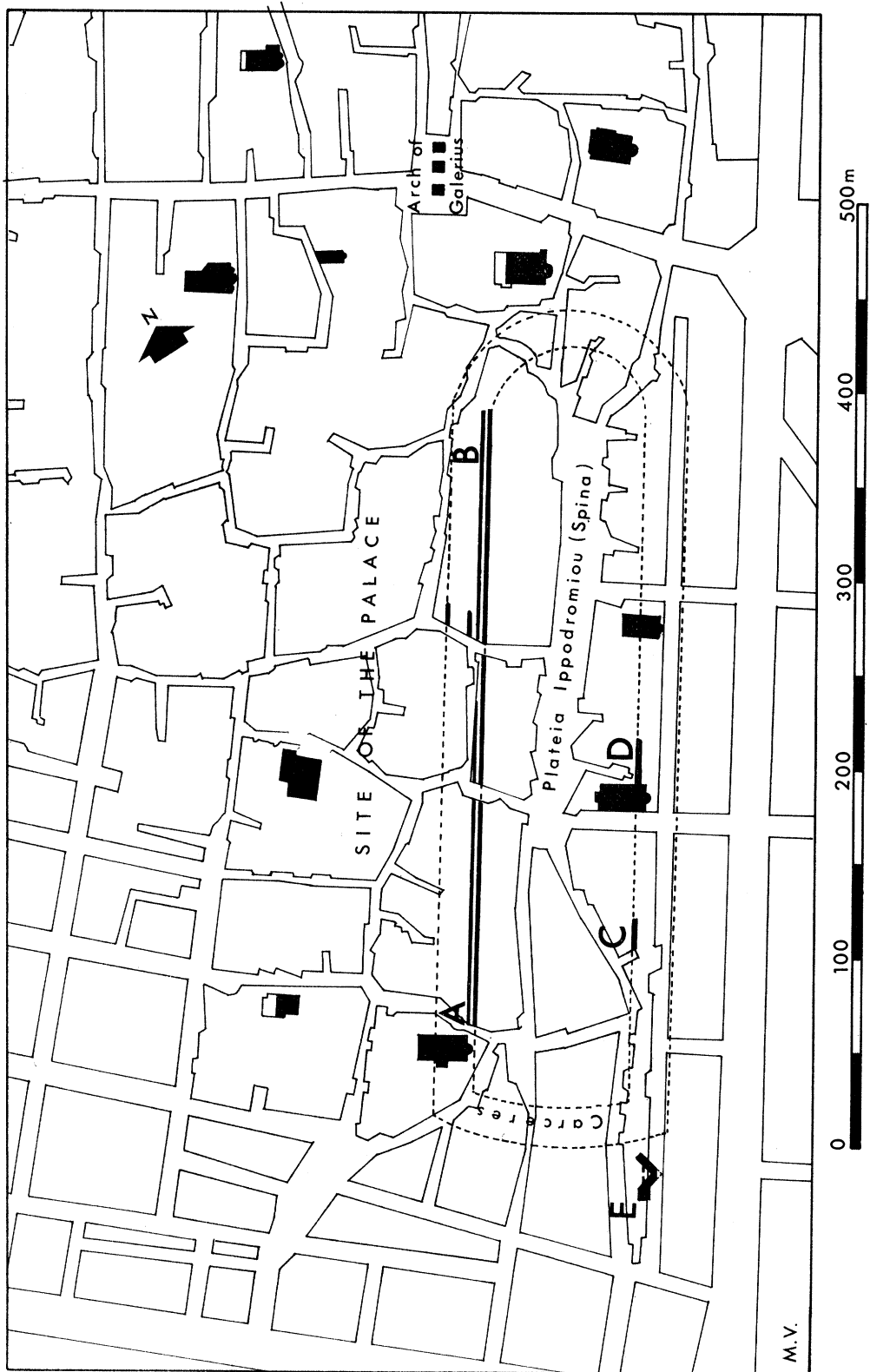


FIG. 1. THE HIPPODROME AT THESSALONIKI, RECONSTRUCTION

Roman circuses to ensure a fair start for the competitors. These devices have recently been discussed by H. A. Harris.²³ He points out that the starting gates, the *carceres*, were not laid in a straight line, but on the arc of a circle, the centre of which lay not (as might be expected) anywhere on the middle axis of the circus, but at a point somewhat to the right of it, i.e. at the point on which the chariots converged as they emerged from the *carceres* at the beginning of a race. He quotes as examples of curved *carceres* those of the small circus at Gerasa and of the Circus of Maxentius on the Via Appia outside Rome; further examples are known at Mérida and Toledo in Spain, and at Antioch on the Orontes.²⁴

To prevent crowding at the beginning of the right-hand lane, and again at the turn at the other end, the *spina* in a Roman circus was regularly on a line oblique to that of the longitudinal axis, though Harris appears to suggest that this only occurred in the Circus of Maxentius. When the circus was large, the angle of divergence was naturally small (the actual width of the lanes remaining more or less constant). In the Circus Maximus and the Circus of Maxentius, for example, it was as little as half a degree.²⁵ In smaller circuses closer in size to the one at Thessaloniki the angle becomes greater: at Toledo and Mérida slightly more than one degree, and at Byzantium between 2° and 2° 30'.²⁶ On the pre-1917 plan of the hippodrome area at Thessaloniki, there is a feature that clearly represents the line of the *spina*, viz., Plateia Hippodromiou, whose alignment diverges noticeably from the longitudinal axis of the hippodrome as represented by the vaults on the west side, and whose length (approximately 230 m) appears to be precisely the same as that of the *spinae* at Mérida and Toledo (both 230 m). But if the Plateia marks the *spina*, how can one account for its having become an open space? What possibly happened was that the monuments which we now know to have once adorned its length (see below, p. 30 f.) remained standing long after the track had been built over. It was only after the form of the modern square had become canonized by usage that the monuments were removed, or perhaps merely lost to view beneath the thick layer of earth that accumulated over the centuries.

Even though the surviving remains of the hippodrome are so scanty, we have enough information to attempt a reconstruction. The approximate width of the arena, measured between the line of the edge of the inner row of vaults on the west and the edge of the podium on the east, is approximately 84 m. The dimensions of the curved end can also be calculated by drawing two concentric semi-circles centred on the northern end of the *spina*, the inner one having a radius of half the width of the arena (i.e., approx. 42 m), and the outer, half the width of the arena plus the width of the seating as represented by the double row of vaults on the west (i.e. approx. 42 m plus 20 m). The situation at the other end is not so clear, for the exact position of the *carceres* is not known from excavation, but since, to the best of my knowledge, there is no extant hippodrome that does not have abaxial *carceres*,²⁷ it is certain that those at Thessaloniki were askew, and probable that they were curved.

In most respects, the known dimensions of the hippodrome at Thessaloniki correspond with those of the circuses at Mérida, Toledo and especially Byzantium:

²³ 'The starting gate for chariots at Olympia', *GR*, n.s. xv (1968), 113-26.

²⁴ Gerasa, E. B. Müller, 'The Hippodrome', in C. H. Kraeling (ed.) *Gerasa, City of the Decapolis* (1938), 85-99, plan VI. Circus of Maxentius, A. Nibby, *Del circo detto di Caracalla* (Rome, 1825), plan (the most up-to-date one!—reproduced in L. Crema, 'L'architettura romana', *Enciclopedia classica*, Sez. III, XII, I (Turin, 1959), 597, fig. 788); aerial view in A. Boethius and J. B. Ward-Perkins, *Etruscan and Roman Architecture* (1970), pl. 258; useful photographs, but inaccurate plan, in G. Popoff-Béboutoff, 'Der Circus des Maxentius; eine vernachlässigte Ruine Roms', *Antike Welt* I, 1 (1970), 28-31. Mérida, J. R. Mélida, 'El circo romano de Mérida, memoria de las excavaciones practicadas de 1920 a 1925', *Junta superior de excavaciones y antigüedades*, Num. gral., 72, Num. 2 de 1924-5 (Madrid, 1925); id., 'Excavaciones de Mérida, el circo, etc., memoria de los trabajos practicados en 1926 y 1927', *ibid.*, Num. gral., 98, Num. 6 de 1927 (Madrid, 1929); useful aerial photo-

graph in F. J. Wiseman, *Roman Spain* (London, 1956), pl. 11, opp. p. 136, Toledo, Comisión de Monumentos históricos y artísticos de Toledo, 'Excavaciones en Toledo: Memoria de los trabajos efectuados en el circo romano', *Junta superior de excavaciones*, Num. gral., 96, Num. 4 de 1927 (Madrid, 1928). Antioch, W. Campbell, 'The circus', *Antioch-on-the-Orontes* I, 34-41, plan 35, fig. 4.

²⁵ Circus Maximus, P-W III, 2, 2573-4, s.v. 'Circus'; E. Nash, *Pictorial Dictionary of Ancient Rome* I (1961), 236-40.

²⁶ Byzantium, E. Mamboury and E. Weigand, *Die Kaiserpaläste von Konstantinopel* (1936), pl. 102.

²⁷ Cyrene, however, is slightly exceptional, for there the *carceres*, though askew, are not curved but straight: S. Stucchi, 'Cirene, 1957-1966', *Quaderni dell'Istituto Italiano di Cultura di Tripoli* III (Tripoli, 1967), 44, plans pp. 15 and 36-7; idem, 'First outline for a history of Cyrenaican architecture during the Roman period', *Libya in History, Historical Conference 1968* n.d. (c. 1971), 228.

	Length		Breadth		Spina
	Inside	Outside	Inside	Outside	
Mérida	403·75 m	423·15 m	85·40 m	114·80 m	230 m
Toledo	407 m	422·50 m	83·10 m	100·50 m	230 m
Byzantium	?	?	79·50 m	123·50 m ²⁸	?
Thessaloniki	?	?	80 m (approx.)	125 m (approx.)	230 m (approx.)

It would seem that these four circuses, being of more or less uniform size, conform to a standard that was widely spread in the Roman world.²⁹ Granted this, it ought to be possible to supply, on the basis of the known dimensions of the circuses at Mérida and Toledo, the missing dimensions at both Thessaloniki and Byzantium. The difference between the overall widths of the Spanish circuses and those at Thessaloniki and Byzantium can be attributed to the fact that the latter were situated in larger cities where more seating accommodation was required, and consequently in calculating their lengths it is necessary to add on at least twenty or twenty-five metres to the Toledo dimensions.

A measurement of just over 400 m applied to the old street plan of Thessaloniki gives interesting results, for then the *carceres* coincide with the point where a modern street approaching from the south narrows considerably before widening out again. This street must surely follow the course of an ancient one which was once the processional route into the hippodrome from the south and which must have passed through a gateway in the centre of the *carceres*. Examples of such gateways are well attested in surviving examples of circuses, as well as in circus scenes on mosaics.³⁰

It is very likely that there was another entrance in the curved end to the north, as occurs for example in the circus at Toledo³¹ or in the best known example of all, in the Circus Maximus at Rome. In the latter, the entrance gate in the curved eastern end was replaced in A.D. 80/81 by a triple triumphal arch, the Arch of Vespasian and Titus, built to commemorate Titus' conquest of Jerusalem.³² There was an almost parallel situation at Thessaloniki, for the Arch of Galerius, built to commemorate the latter's victory over the Persians in 297, stands close to the hippodrome's northern end, and an entrance here would explain why the main street of modern Thessaloniki (the so-called Odos Egnatia), once it has passed through the Arch, makes a distinct bend to the south-east;³³ so the ancient street must have done in order to meet the processional route from the hippodrome.

A further point is that in about 1963 part of the fifth-century city wall was found in the

²⁸ Mamboury, 'Les fouilles byzantines à Istanbul', *Byzantion* XI (1936), 271-2. Cf. Mamboury, *Byzantion* XXI (1951), 455-9; R. Naumann and H. Belting, 'Die Euphemia-Kirche am Hippodrom zu Istanbul und ihre Fresken', *Istanbul Forschungen* XXV (Berlin, 1966), plan p. 17, fig. 1; and R. Guiland, 'Les hippodromes de Byzance; l'hippodrome de Sévère et l'hippodrome de Constantin', *Byzantinoslavica* XXXI (1970), 182-8.

²⁹ Another Spanish circus that looks as if it might have been the same size is the one formerly visible at Calahorra (Calagurris Julia Nasica) which, according to J. A. Cean-Bermúdez, *Sumario de las antigüedades romanas que hay en España* (Madrid, 1832), 138, 1, was 'de largo 489 pasos comunes, 116 de ancho y las paredes 22 pies de grueso, y se señalan las gradas en que se sentaban los espectadores'. The 'muchos acueductos de plomo' found 'en su recinto' were probably from the *euripis* (on which see below, p. 30 f.). The circus at Miróbriga dos Celticos in Portugal was similar in many ways: the *spina* was c. 230 m long, and the track 76 m wide, but only 356 m long (J. Cruz e Silva, *Arquivo de Beja* III, 1946, 341, fig. 6; F. de Almeida, 'Nota sobre os restos do circo romano de Miróbriga dos Celticos (Santiago do Cacém)', *Revista de Guimarães* LXXXIII, 1963, 147-54).

Two African circuses have similar dimensions: Cherchel, (400 m × 90 m; S. Gsell, *Les monuments antiques d'Algérie* I, 1901, 204), and Sétif (400 m × 80 m; P. Romanelli, 'Topografia e archeologia

dell'Africa romana', *Enciclopedia classica*, Sez. III, vol. X, 7 (1970), 168).

³⁰ e.g. in the Circus of Maxentius and at Toledo. R. Guiland has assembled the literary evidence for such a gateway at Byzantium, 'Études sur l'hippodrome de Byzance', *Byzantinoslavica* XVIII (1957), 39-76. Relevant mosaics occur at e.g. Gerona, B. Taracena, *Ars Hispaniae* (Madrid, 1947), 71, fig. 49; A. Balil, 'Mosaicos circenses de Barcelona y Gerona', *Boletín de la real Academia de la Historia* CLI (1962), 257-351, pls 24-37; S. Reinach, *Répertoire de peintures grecques et romaines* (1922; cited below as *RPGR*), 291, 1. Lyons, A. Grenier, *Manuel d'archéologie gallo-romaine* III (1958), 981, fig. 322; *RPGR* 291, 2. Carthage, L. A. Constans, 'Mosaïque de Carthage', *RA*, 5e sér. III (1916), 247-59, 248, fig. 1; *RPGR* 293, 2.

³¹ And also at Cherchel (Gsell, loc. cit.). Prof. P.-A. Février kindly informs me that at Sétif he found a monumental gate at the curved end of the circus, through which a series of steps led up to the roadway outside.

³² Nash, op. cit. (n. 25), I, 240, fig. 278. This arch appears on a frieze of the Tomb of the Haterii (Helbig, ⁴ I, 1076) now in the Vatican Museum.

³³ The less emphatic bend made by this street immediately to the west of the Arch is well attested from excavation (E. Hébrard, 'Les travaux du service archéologique de L'Armée d'Orient à l'Arc de Triomphe "de Galère" et à l'église Saint-Georges de Salonique', *BCH* XLIV, 1920, 9, fig. 3).

long, thin, tail-like block which extends to the south of the hippodrome (E on Fig. 1).³⁴ I have argued elsewhere from the existence of what appear to be the re-used marble seats of the hippodrome in the foundations of parts of the city wall built in the mid-fifth century that the hippodrome must have gone out of use by then.³⁵ This would seem to be confirmed by the fact that in one place we definitely have foundations of the city wall built into the foundations of the eastern side of the hippodrome, while in another we have the tail-like block, whose form is presumably due to the fact that the city wall underlies it, continuing to the north across ground which we now know to have been occupied by part of the hippodrome.

One problem arises, however, namely, the fact that there is a reference to factions causing trouble at Thessaloniki in the seventh century, in the reign of Phocas.³⁶ It has already been argued, though, that by the fifth century factions are equally a feature of theatres and amphitheatres,³⁷ and since we know that the stadium to the south of the basilica of St. Demetrius, which was where gladiatorial shows took place in late antiquity, continued in use down to the ninth century at least,³⁸ the factions could have been active there instead. A close parallel is provided by Lepcis Magna: by the fifth century the circus was no longer used as such, but had been fortified and inhabited, while games continued in the amphitheatre.³⁹

To return for a moment to the chart above, it will be seen that it is possible to supply some missing dimensions to the hippodrome at Byzantium as well. If a measurement of just over 400 m is applied to it, it emerges that the Serpent Column is exactly in the centre, and that the site of the *carceres* was just in front of Kaiser Wilhelm's fountain. This bears out E. Mamboury's hypothesis that, since the Serpent Column stands precisely between the two obelisks, then it ought to have marked the middle-point of the hippodrome as well.⁴⁰ The overall dimensions of about 450 m he proposed for the hippodrome at Byzantium would be close to the length of the hippodrome at Thessaloniki as we have reconstructed it.

A chance find has given us the name of an official who was responsible for carrying out certain changes in the hippodrome at Thessaloniki. An inscription found in the city (exact provenance unknown) reads: 'inter cetera etiam euripum statuis / adornatum Domitius Catafronius v̄(ir) p̄(erfectissimus) proc(urator) ~ s̄(acrae) / m̄(onetae) T(hessalonicensis) / fecit'.⁴¹ In the late empire, the *spina* of a hippodrome might regularly be replaced by a feature known as the *euripus*. This word underwent two semantic shifts in antiquity. It originally meant the straits between Euboea and the Greek mainland, but in the early empire was used for the canal which separated the audience from the track in the Circus Maximus at Rome.⁴² Finally it came to mean either a continuous stretch of water or a series of ornamental pools, which acted as the *spina* of a hippodrome. Tertullian had the later sense in mind when he wrote: 'ecce si dicam, civitas extruit theatrum et circum, scena autem erat talis et talis, et statuae super euripum, et obeliscus super omnia ferebatur'.⁴³ The *spina* at Byzantium was regularly known as the *Euripus*,⁴⁴ and this is also the sense in which it is used by Byzantine writers, almost without exception.⁴⁵ A *euripus* is to be seen in some mosaic representations of circus scenes. In the Maison à la Mosaïque at

³⁴ *ADelt* XVIII (1963), B'2, 243-6, figs 3 and 6, pl. 275. More stretches had been found further to the south in 1950 (*BCH* LXXV, 1951, 116 and *Makedonika* II, 1941-52, 597), 1951 (*BCH* LXXVI, 1952, 227), and 1952 (*BCH* LXXVII, 1953, 224), but were incorrectly attributed to Galerius.

³⁵ M. Vickers, 'The date of the walls of Thessalonica', *Istanbul Arkeoloji Müzeleri Yıllığı* xv-xvi (1969), 313-8; id., 'The date of the mosaics of the Rotunda at Thessaloniki', *PBSR* xxxv (1970), 183-7.

³⁶ *Miracula S. Demetrii* I, ch. 10.

³⁷ See A. Cameron, *Circus Factions* (forthcoming).

³⁸ See M. Vickers, 'The Stadium at Thessaloniki', *Byzantion* xli (1971), 339-48. It is probably relevant that a new palace was built fairly near the stadium in the mid-fifth century, the Tetrarchic palace having in all likelihood gone out of use: see my 'A note on the Byzantine palace at Thessaloniki', *BSA* LXVI (1971), 369-71.

³⁹ M. Floriani Squarciapino, *Leptis Magna* (1966), 132.

⁴⁰ loc. cit. (n. 28).

⁴¹ C. Edson, *Inscriptiones Graecae* x, II, I, no. 41. *Euripus* clearly does not mean 'canal', as suggested there. Cf. C. H. V. Sutherland, *RIC* vi, 89, n. 1.

⁴² Dion. Hal. III, 68; Suet., *Caes.* 39. Cf. P-W VI, I, 1284-5, s.v. 'Euripos'.

⁴³ *Adv. Hermogen.* xxxi.

⁴⁴ C. A. Mango, 'L'Euripe de l'Hippodrome de Constantinople', *REB* VII (1949), 180-93; R. Guillard, 'Études de Topographie de Constantinople byzantine', *Berliner byzantinische Arbeiten*, xxxvii (Berlin, 1969), 447 (= *Jahrbuch der Österreichischen byzantinischen Gesellschaft* VI (1957), 29-32).

⁴⁵ e.g. Malalas (ed. Bonn, 174); *Chron. Pasch.* (ed. Bonn, 208); Cedrenus (ed. Bonn I, 258).

Volubilis a mosaic was discovered depicting a *euripus* shown as consisting of two long, low, and stout walls joined at their extremities by means of short concave walls and containing bright green water. The walls support, *inter alia*, a device for counting laps consisting of seven dolphins spouting water and mounted on a frame.⁴⁶ A mosaic in the Archaeological Museum at Barcelona is even grander. For there, in addition to a *euripus* full of water and devices for counting laps (both dolphins and eggs), there are victories on columns, two circular tempietti, Magna Mater seated on a lion spouting water from its mouth, and an obelisk with hieroglyphics *à l'espagnole*, all standing in the water; there are standards, bound prisoners, and numerous statues set up round the top of the *euripus* wall.⁴⁷ Similar mosaics with representations of *euripi* are known from Carthage and Piazza Armerina.⁴⁸ Between them all one gets a good idea of what Catafronius' *euripus* at Thessaloniki must have looked like when he had adorned it with statues.

The procurator Catafronius is referred to on the inscription as a *vir perfectissimus*, and this makes it likely that alterations subsequent to the actual building of the hippodrome are meant. The reason for this is that although it was presumably built *c.* 300 at the same time as the palace (as happened at Nicomedia),⁴⁹ yet this date is too early for a procurator of the mint to have held such an exalted title. There is an inscription from Trier recording the Constantinian official Valerius Pelagius who, while being *proc(urator) s(acrae) m(onetae) u(rbis)*, was merely a *v(ir) e(gregius)*. Assuming the office of procurator to have held uniform status at any given time, Catafronius must post-date Pelagius' tenure and have held office only when its status had shared in the inflationary movement typical of the fourth century and later.⁵⁰ That a well-appointed circus had a *euripus* by the mid-fourth century is clear not only from the examples cited above, but also from an inscription of 337/40 found in the circus at Mérida which refers to the *comes* Tiberius Flavius Laetus rebuilding the circus and includes the fact that he 'circum . . . aquis inundari disposuit'.⁵¹

Finally, the way the hippodrome lies with respect to the palace is noteworthy. It is not merely that they are adjacent to each other, as was to be expected, but the hippodrome conforms to what seems to have been the rule for the siting of palatine circuses, namely, that the side to the left of the *carceres* should be towards the palace. The reasons for this are fairly obvious. Since the best view of the races was to be had from that side, the imperial box was regularly placed there; it was therefore convenient to site the imperial box as close to the palace as possible in order to facilitate access for the emperor, who would regularly attend the races when in residence. Thus at Rome an imperial box looked down from the Palatine on to the Circus Maximus,⁵² and the same criteria governed the position of the Palace of the Kathisma at Byzantium, now shown to have been beyond all doubt on the left (east) side of the hippodrome.⁵³ This arrangement is to be found in other tetrarchic foundations besides Thessaloniki, and where the evidence is lacking, such a disposition can be plausibly inferred. The best preserved example is the Circus of Maxentius where the imperial box is situated on the left-hand side between the *carceres* and the end of the *spina*, and was linked by a covered way with the palace further to the north.⁵⁴ At Antioch, the hippodrome is probably of Roman republican date, but the Tetrarchic palace was built on its left side.⁵⁵ At Milan, the site of the circus is well known, but that of the palace is not,

⁴⁶ R. Thouvenot, 'Mosaïque de Volubilis représentant une course de chars', *CRAI*, 1954, 344-8; id., *Maisons de Volubilis* (1958), 66-9, pl. 16.

⁴⁷ B. Taracena, *op. cit.*, 71, fig. 48; Balil, *op. cit.*, pls. 38-48; M. Taradell, *Arte romano en España* (Barcelona, 1969), 12-13, fig. 2; 16, fig. 5; 197-8, fig. 169; *RPGR* 291, 3.

⁴⁸ Carthage, see n. 30 above. Piazza Armerina, G. V. Gentili, 'Le gare del circo nel mosaico di Piazza Armerina', *Bolletino d'Arte* XLII (1957), 9, fig. 2.

⁴⁹ Diocletian attended the dedication of the hippodrome at Nicomedia in 304, which suggests that the palace and the hippodrome there had been put up together (Lact. *De mort. pers.* xvii, 2-9).

⁵⁰ *CIL* vi, 1145. I am grateful to Mr. Michael Hendy for this reference and for the conclusions to be drawn from it. He discusses the question of the date of Catafronius in 'Aspects of coin production

and fiscal administration in the late Roman and early Byzantine periods', *NC*, 7th ser., xii (1972), (forthcoming).

⁵¹ *AE* 1927, 165. Mr. J. Humphrey has kindly shown me some photographs of the elaborate waterworks, of uncertain date, found in the *spina* at Antioch by the Princeton expedition of 1935.

⁵² Nash, *op. cit.* (n. 25), 236, fig. 271.

⁵³ A. Piganiol, *Second Int. Congr. Byz. Studies* (Belgrade, 1929), 56 ff.; A. Vogt, 'L'hippodrome de Constantinople', *Byzantion* x (1935), 482-8; Guiland, 'Études sur l'hippodrome de Byzance; le palais du Kathisma', *Byzantinoslavica* xviii (1957), 39-76.

⁵⁴ See n. 24 above and G. Lugli, *Bull. Com.* LII (1925), 126-34, pls 1-2.

⁵⁵ G. Downey, *A History of Antioch in Syria* (1961), 318-23, 648 and fig. 11.

though the name of a church not 250 m east (and to the left) of the circus—S. Giorgio al Palazzo, founded *c.* 700—is suggestive. It might well be that a building found on the left hand side opposite the end of the *spina* should be identified with the imperial box.⁵⁶ The site of the circus at Trier has been established with the palace area to the left, though it was probably not as long as in von Massow's reconstruction.⁵⁷ At Aquileia, it used to be thought that the imperial palace lay in the immediate vicinity of the Christian basilica,⁵⁸ but it has recently been suggested that it ought to have been near the circus in the as yet unexplored north-west corner of the city.⁵⁹ In view of the general proximity of palaces to circuses this would seem to be very likely.

Ashmolean Museum, Oxford

⁵⁶ The circus, A. De Capitani d'Arzago, *Il circo romano* (Milan, 1939); A. Calderini in *Storia di Milano* I (Milan, 1953), 530–5. The palace, M. Cagianò de Azevedo, 'Admiranda palatia', *Boll. del Centro Studi di Architettura* XIV (1959), 5.

⁵⁷ 'Der Circus des römischen Trier', *Trierer Zeitschrift* XVIII (1949), 149–69. von Massow takes the dimensions of the Circus of Maxentius as the standard for Roman circuses without apparently realizing that it was exceptionally large. At Trier, Egbertstraße (p. 162, fig. 6) runs along the east (right) side of the hippodrome and has a striking westward bend which recalls the oblique sector in the right hand side of the hippodrome at Byzantium (R. Duyuran, *Istanbul Arkeoloji Müzeleri Yılı* V (1952), 23–38, plan, fig. 1, and *ibid.*, VI (1954), plan, fig. 2), and lies at more or less the same distance from the curved end. This suggests that the circus at Trier might have had the same overall length.

⁵⁸ e.g. G. Brusin, *Aquileia e Grado, guida breve*, 7th edn. (Padua, 1967), plan.

⁵⁹ M. Mirabella Roberti, 'L'edificio romano nel "patriarcato"', *Aquileia nostra* XXXVI (1965), 45–78, esp. 62. Dr. Robin Cormack has drawn my attention

to A. Frazer, 'The iconography of the emperor Maxentius' buildings in Via Appia', *Art Bulletin* XLVIII (1966), 385–92, who discusses the principles underlying the planning of Tetrarchic palaces in some detail (see esp. figs. 4–9; nos 8 and 9 should be transposed) without, however, observing that such palaces always lie to the left of the *carceres* of their neighbouring hippodrome.

Postscript. Since the above was written, Dr. Hans Peter Laubscher has kindly sent me a copy of von Schoenbeck's notebooks which deal with the survey of 1935. S. was able to follow the seating foundations (presumably A–B on Fig. 1) for a distance of 300 m. The vaulted substructure was 4.50 m wide and consisted of two concentric brick vaults resting on a deep stone-built foundation. There were windows in the side of the vault towards the arena placed at regular intervals, while on the other side there were doorways more frequently spaced (12.50 m apart). Although he found no direct evidence for the semi-circular end, S. argued from the irregular streets towards Odos Egnatia that it must have lain in that area. The brickwork of the extant vault he compared with that of the Arch of Galerius.