

AD CAPITA BUBULA: THE BIRTH OF AUGUSTUS AND ROME'S IMPERIAL CENTRE

Natus est Augustus M. Tullio Cicerone C. Antonio cons. XIII. Kal. Octob., paulo ante solis exortum, regione Palati, ad Capita Bubula, ubi nunc sacrarium habet, aliquanto postquam excessit constitutum. (Suet. *Aug.* 5)

Carinae sunt aedificia facta in carinarum modum, quae erant circa templum Telluris. Lautas autem dixit aut propter elegantiam aedificiorum, aut propter Augustum, qui natus est in Curiis Veteribus et nutritus in lautis Carinis. (Serv. *ad Aen.* 8.361)

Suetonius reports that Augustus was born in Rome 'at Ox Heads' or *ad Capita Bubula*, 'where presently he has a shrine that was established somewhat after he died' (*Aug.* 5). This toponym, known only from Suetonius, probably designated a site 'in the area of the old Curial offices' (*in Curiis Veteribus*) at the eastern angle of the Palatine hill, where Servius placed Augustus' birth (*ad Aen.* 8.361).¹ Scholars have previously conjectured that the place was termed *ad Capita Bubula* because there were real or artificial ox heads (*bucrania*, *capita bubula*) displayed nearby.² But the present discussion suggests that this place name did not originally refer to *bucrania*, but to a geometric pattern central to Augustus' reorganized Rome of fourteen regions and 265 *vici* (districts). This paper argues that Suetonius' phrase *ad Capita Bubula* carried ideological weight because it helped to locate the birth of Augustus at the City's urban centre.

Several broad ideas contribute to this discussion. First, after Augustus' death in C.E. 14, his birthplace near the *Curiae Veteres* was assimilated to the shrines (often 'tombs') of founding heroes typically located at the centre of numerous Greek cities. This possibility is latent within Suetonius' description of Augustus' birth and death, when he says that the emperor's widow Livia converted the house

¹ Citations of Roman land surveyors are from K. Lachmann (ed.), *Gromatici Veteres*, vol. 1 from F. Blume, K. Lachmann and A. Rudorff (edd.), *Die Schriften der römischen Feldmesser* (Berlin, 1848) and C. Thulin (ed.), *Corpus Agrimensorum Romanorum*, vol. 1, fasc. 1 of *Opuscula Agrimensorum Veterum* (Leipzig, 1913). Abbreviations include: *Bauten Roms* = H. Kütthmann and B. Oberbeck, *Bauten Roms auf Münzen und Medaillen* (Munich, 1973); *BMC* = H. Mattingly, *Coins of the Roman Empire*; vol. 2, *Vespasian to Domitian*, 2nd ed. (London, 1976); *C.* = H. Cohen, *Description historique des monnaies frappées sous l'empire romain*, 2nd ed. (Paris, 1880–92); *La.* = K. Lachmann (ed.), *Gromatici Veteres* (above); *LTUR* = E.M. Steinby (ed.), *Lexicon Topographicum Urbis Romae* (Rome, 1993–); *PA* = S.B. Platner, *A Topographical Dictionary of Ancient Rome*, rev. T. Ashby (London, 1929); *RIC* = H. Mattingly et al. (edd.), *Roman Imperial Coinage* (London, 1923–81); Richardson = L. Richardson, Jr., *A New Topographical Dictionary of Ancient Rome* (Baltimore, 1992); *Th.* = C. Thulin, *Corpus Agrimensorum Romanorum* (above). I am grateful to *CQ*'s referees for their suggestions.

PA 571 notes that a fragment of the Severan Marble Plan is inscribed 'BU...' which, he claims, might refer to a *vicus Bubularius* belonging to the Palatine region X (*CIL* IV, 343 *mag. anni XXXII [vici] ... ari reg. X*). PA 147 and Richardson 68 argue for the proximity of *Curiae Veteres* and *ad Capita Bubula*.

² Richardson 68 and PA 95 ('probably took its name from some monument or building decorated with bulls' heads'); likewise, M. Torelli, 'Capita Bubula, ad', *LTUR*, v. 1 (1993), 226.

of his birth into a *sacrarium* after his death (Suet. *Aug.* 5, above). Livia's conversion of her husband's natal home into the initial shrine of divinization emphasizes the emperor's heroic biography. One notes especially that the natal house-shrine commemorated both the birth and death of Augustus (house of birth, shrine of divinization) as sacred events – the passing of his eternal divine soul into and out of the material world; the *urbs* (and *orbs*?) came to be structured around this site of his entry into the world. The shrine acknowledges the physical centrality of Augustus' incarnation within his reorganized urban topography. This is particularly evident in the fact that by officially reorganizing Rome into fourteen regions and 265 districts or *vici* (7 B.C.E.), Augustus acted as a kind of second founder. This restructuring, along with programmes of reconstruction and building, contributed to the ideology of Rome's Augustan 'rebirth', a motif evident in the poetry of the period.³ Since Augustus centred Rome's new structure near the site of his birth, he (however indirectly) associated this civic 'rebirth' with his own birth at its heart.

But discussion will begin not with broad ideological concepts, but with narrow consideration of the phrase *caput bubulum*. What is important, initially, is that a *caput bubulum* need not refer to a literal ox head, but was a quasi-technical, geometric term. A review of place names containing 'head' will question the literal explanation (real or crafted 'ox heads'); here we find that a metaphorical meaning of *caput* participates in the ideology of mapping – for example, Rome as *caput mundi*. Next, among several uses of *caput*, a text from the corpus of Roman land surveyors deploys *caput bubulum*, a previously unnoticed term for a diamond-shaped landform divisible into two abutting equilateral triangles. Of course, textual corruption and the uncertain date of this text (manuals in the *Corpus Agrimensorum* were collected in the sixth century) caution against immediate declaration that Suetonius' toponym referred to this term. But major texts in the corpus date from first and second centuries C.E.,⁴ and quotations of earlier authors appear in later

³ For the rebirth motif, one thinks of Propertius' treatment of Rome as *Troia resurgens* (4.1) or Horace's *Carmen saeculare*, but the motif is widespread: see extensive documentation in P. Zanker, *The Power of Images in the Age of Augustus* (Ann Arbor, 1988), esp. chs 4 and 5.

⁴ Surveyors were called *agrimensores* (also *gromatici* or *mensores* and *geomeres* in Greek). For the date of the collection, see *Corpus Agrimensorum Romanorum*, OCD^{3rev}. s.v. *gromatici*. Early authors include: Sex. Iulius Frontinus (c. 40–103; consul, 73 or 74), Hyginus 1 and 2 (c. 100), and M. Iunius Nipsius (perhaps second century C.E.). The text here used is (unless otherwise noted) that of F. Blume, K. Lachmann and A. Rudorff, *Die Schriften der römischen Feldmesser*, 2 vols. (1842–52); some texts were re-edited by C. Thulin, *Corpus Agrimensorum Romanorum* 1/1 (Leipzig, 1913). Many of the texts have been newly translated by B. Campbell, *The Writings of the Roman Land Surveyors*. Introduction, Text, Translation and Commentary (London, 2000). The bibliography examining the Roman land surveyors is extensive and growing: e.g. more recently, O.A.W. Dilke, *The Roman Surveyors: An Introduction to the Agrimensores* (Newton Abbot, 1971); F.T. Hinrichs, *Die Geschichte der gromatischen Institutionen*, (Wiesbaden, 1974); R. Friggeri, 'Agrimensores e mensores a Roma', in *Misurare la terra: centuriazione e coloni nel mondo romano* (Modena, 1985), 28–30, E. Gabba, 'Per un'interpretazione storica della centuriazione romana', in *Misurare la terra*, 20–7 and other articles in *Misurare la terra*; B. Campbell, 'Sharing out land: two passages in the *Corpus Agrimensorum Romanorum*', *CQ* 45 (1995) 540–6 and 'Shaping the rural environment: surveyors in ancient Rome', *JRS* 86 (1996), 74–99; O. Behrends and L. Capogrossi Colognesi (edd.), *Die römische Feldmesskunst. Interdisziplinäre Beiträge zu ihrer Bedeutung für die Zivilisationsgeschichte Roms* (Göttingen, 1992); G. Chouquer and F. Favory, *Les arpenteurs romains: théorie et pratique* (Paris, 1992) and *L'arpentage romain, Histoire des textes, droit, techniques* (Paris, 2001); S. Cuomo, *Technology and Culture in Greek and Roman Antiquity* (New York, 2007), 103–30 (ch. 4, 'Boundary disputes in the Roman Empire').

texts. Important evidence in the current argument will come from the *De iugeribus metiundis*, a brief passage containing the term *caput bubulum*. This text is of uncertain date, but its language and geometric method shows the influence of Columella (c. c.e. 4–70),⁵ and its definition of a landform called *caput bubulum* enables a fundamentally different assessment of *ad Capita Bubula* within Rome's topography, one oriented around Augustus' birthplace and his first shrine as *divus*. In sum, *ad Capita Bubula* may not have been simply a mundane toponym, but a name drawn from the quasi-technical language of professionals who actually repartitioned the city.⁶ Finally, the discussion will reinterpret the toponym *ad Capita Bubula* as designating, in part, the broad geometric design of multiple converging *capita bubula*, urban regions loosely configured as triangles meeting at Rome's centre, where Augustus was born. Also key are a discussion of Augustus' census in 8 B.C.E., the repartition of Rome into fourteen regions in 7 B.C.E. and later activity under Nero and the Flavians; this information will outline the ideological context in which the toponym *ad Capita Bubula*, along with other place names and landmarks, helped to articulate Rome's urban landscape into a structure reorganized around Augustus' birthplace.

I. HEADS, OXEN AND PLACE NAMES

The standard scholarly explanation of the toponym *ad Capita Bubula* has been that it refers to literal *bucrania*, ox heads, displayed along a street or square in Rome. In favour of this view is the fact that *caput* appears in other Roman place names that scholars derive from displayed 'heads' (for example, *Caput Africae* and *Caput Gorgonis*, perhaps from heads of an allegorical 'Africa' and of a Gorgon).⁷ 'Oxen' also contributed to place names (cf. 'Oxford'). Famously, the name *Forum Boarium*

⁵ Following the oldest manuscript of the *agrimensores*, the sixth- or seventh-century *Codex Acerianus* (Wolfenbüttel), scholars have sometimes attributed the *De iugeribus metiundis* (La. 1.354–56) to Epaphroditus and Vitruvius Rufus (unlike Lachmann): e.g. V. Mortet, *Un nouveau texte des traités d'arpentage et de géométrie d'Epaphroditus et de Vitruvius Rufus* (Paris, 1896); M. Cantor, *Die römischen Agrimensoren und ihre Stellung in der Geschichte der Feldmesskunst* (Leipzig, 1875), 208–15. Mortet dated Epaphroditus (in part because of the freedman or slave name) to the second or third century c.e.; Cantor assigned the *De iugeribus metiundis* to the seventh century. Mortet follows MS 13084 from the royal library in Munich (fol. 58–64). For Columella's influence on the *De iugeribus metiundis*, see Dilke (n. 4), 52–5. Scholars debate the influence of Heron of Alexandria (c. 10–70) on Columella and the *agrimensores*: discussion involves similarities between Heron (*Metrica*), Columella and the land surveyors in handling equilateral triangles and the regular hexagon (where the three agree not only in the formula but in the drawn figures): T. Heath, *A History of Mathematics*, vol. 2 (Oxford, 1921), 303; Mortet (above), 11–12 (mentioning Philo of Byzantium as influencing Hero's geometry).

⁶ This interpretation of the place name reflects the growing power of technical experts (esp. freedmen) in the early imperial bureaucracy. See Cuomo (n. 4), 103–30 ('Boundary disputes in the Roman Empire'); C. Nicolet, *Space, Geography and Politics in the Early Roman Empire* (Ann Arbor, 1991); M. Corbier, 'City, territory and taxation', in J. Rich and A. Wallace-Hadrill (edd.), *City and Country in the Ancient World* (London, 1991), 214–43 and A. Wallace-Hadrill, 'Mutatio Morum: the idea of a cultural revolution', in T.N. Habinek and A. Schiesaro (edd.), *The Roman Cultural Revolution* (New York, 1997), 3–22.

⁷ Richardson 70–1 and PA 98–9 provide decorative explanations for *Caput Africae* (listed in *regio* II by regionary catalogues) and *Caput Gorgonis* (listed in *regio* XIV). See *Forum Tauri* (alternative name, *Caput Tauri*) at Richardson 175 and PA 237; Richardson derives the name from the display head or heads of a bull.

(or *Bovarium*) derived either from the cattle market along the river Tiber (Varro, *Ling.* 4.146; Paul. Fest. 27L) or from an 'Aeginetan bronze statue of an ox' that marked the starting point of Romulus' sacred urban boundary, the *pomerium* (Ov. *Fast.* 6.477–8; Plin. *HN* 34.10; Tac. *Ann.* 12.24).⁸

But other factors urge caution. Display of *bucrania* is hardly distinctive: they were standard sculptural motifs in sacred architecture (for example skulls on the Ara Pacis). While our place name might have derived from *bucrania*, their commonness lessens the likelihood that *ad Capita Bubula* refers to *bucrania* when locating Augustus' birth. Secondly, *capita* may not refer to literal 'heads'. Place names with *caput* appear outside Rome (for example, *Caput Bubali* in Dacia; *Caput Vadorum* on the African coast),⁹ but these names use *caput* or 'head' for a summit or rise of land (cf. 'Cape') or the ends of linear features such as rivers (*Caput Anas* in Spain)¹⁰ or roads (and structures like bridges).¹¹ A metaphorical example that the Romans exploited was Rome as *caput* or head of a world empire.¹² Ancient augural legends (for example, *Capitolium*) sometimes exploited symbolic interactions between such literal and figurative meanings (head, headland and administrative centre). The omen of discovering a human head when laying foundations for the temple of Jupiter Optimus Maximus (on the 'Capitoline' Hill) literalized the trope. At Carthage's foundation an ox head (*caput bubulum*) was found and interpreted as suggestive of wealth, but submission to others; so another site was found, where a better omen, a horse head, was discovered (Verg. *Aen.* 1.441–5, Serv. *ad Aen.* 1.443; Just. *Epit.* 18.5.15–17). Consequently, the concept of *caput* as a 'centre' could also have informed the place name *ad Capita Bubula*.¹³

⁸ 'Forum Boarium (or Boviarium)', Richardson 162–4, 163 (quotation); Richardson thinks it is 'probably correct' to derive the name from the bronze statue of an ox.

⁹ *Caput Bubali* in Dacia at Latit. 45 28 N, Long. 22 0 E: G. Butler, *Longman's Atlas of Ancient Geography* (New York, 1893), map no. 15; N. Hammond (ed.), *Atlas of the Greek and Roman World in Antiquity* (Park Ridge, NJ, 1981), map 24 Fc; and R. Talbert (ed.), *Barrington Atlas of the Greek and Roman World* (Princeton, 2000), map 21, E4.

¹⁰ Lewis and Short s.v. *caput*, 1.2.b; *Dig.* 43.20. 1 § 8, *caput aquae illud est, unde aqua nascitur*. Similar usages: Lucr. 5. 270, 6. 636, 729; Tib. 1.7.24; Hor. *Carm.* 1.1.22, *Sat.* 1.10.37; Verg. *G.* 4.319, 368; Ov. *Met.* 2.255; Hirt. *B. Gall.* 8.41; Livy 1.51.9, 2.38.1, 37.18.6. *Caput fontium*: Vitruv. 8.1; Mela 3.2.8; Plin. *Ep.* 8.8.5, 10.91.1. Cf. *Caput Anae* in Spain (Tarracoensis), at Latit. 39 0 N. Long. 2 39 W, map no. 25 in Butler.

¹¹ *CIL* IX 1175, [*viam*] *stravit per milia passuum tot ad kaput eiusdem viae*; IX 1426, *ex hoc capite iter latum*; Vulg. *Ezech.* 42.12. Also see G. Laing, 'Roman milestones and *capita viarum*', *TAPhA* 39 (1908), 15–34. The 'starting point' of the *Sacra Via* is a *caput*: *quod hinc oritur caput sacrae viae*, Varro, *Ling.* 5.47. A golden milestone (*miliarium*) was set 'upon the head of the Roman Forum': *a miliario in capite Romani fori statuto*, Plin. *HN* 3.66 (see below). *Capita pontis* are 'bridgeheads', forts at either end of a bridge path: L. Munatius Plancus *ap. Cic. Fam.* 10.18.4; Frontin. *Str.* 2.15.15 [Horatius Cocles] *in capite eius [pontis] propugnaculum*; Veg. *Mil.* 3.7. Cf. *Caput Tyrsi* where an ancient north–south road crosses the river Tyrsus in Sardinia: Hammond (n. 9), map 18b, Bd.; Talbert (n. 9), map 48, B2. Other architectural structures: *capita xysti*, Plin. *Ep.* 2, 17, 20; *caput porticus*, Plin. *Ep.* 5, 6, 19.

¹² Nicolet (n. 6), 192 and 204 n.9, cites *TLL* 3:2, col. 426: e.g. Livy 1.16.7 (*mea Roma caput orbis terrarum sit*); Ov. *Ars am.* 1.15.26; Plin. *HN* 28.15, 3.38; and Tac. *Ann.* 1.46–7, 3.47.1.

¹³ Carthage: J. Scheid and J. Svenbro, 'Byrsa. La ruse d'Elissa et la fondation de Carthage', *Annales E.S.C.* 40 (1985) 328–42. P. Bourgeaud, 'Du Mythe à idéologie: la tête du Capitole', *MH* 44 (1987), 86–100. On the *caput* trope and the Capitoline hill as symbol of the city and of the Roman Empire as a whole ('Rome's metonymic heart, the Capitoline hill'), see C. Edwards, *Writing Rome: Textual Approaches to the City* (Cambridge, 1996), 69–95 (quotation at 73). Royal rule is also augured through 'heads': Livy 1.18, *ita precatus est: 'Iuppiter pater, si est fas hunc Numam Pompilius cuius ego caput teneo regem Romae esse, uti tu signa nobis certa adclar-*

II. 'HEADS' IN LAND MEASUREMENT

Head and source

As noted above, *caput* or 'head' could refer to the 'source' of a stream or river.¹⁴ This meaning is related to a geometric (abstract) schema: *caput* designated 'either end or extremity of a horizontal object' (*OLD*, s.v. *caput* § 10). Surveyors used this geometric term,¹⁵ as did others (for example, for the *capita* or ends of a bridge: Plancus, *Fam.* 10.18.4; cf. 'bridgehead'). The surveyor Siculus Flaccus (uncertain date)¹⁶ describes a boundary course from one end to another as passing 'from head to head', *a capite usque ad caput* (*De condicionibus agrorum* p. 142, 8–9 La. = p. 106, 8–9 Th.). Each end of the boundary line is a *caput*.¹⁷

In fact, surveyors apply this meaning of *caput* to the sources of boundary lines delineating landforms.¹⁸ Of particular interest is that *caput* designates the 'starting point' of the boundaries surrounding a *centuria* – a unit of land partitioned by a grid of surveyed boundaries.¹⁹ Marcus Iunius Nipsius (perhaps second century C.E.), a surveyor, describes how to reassess the bounds of previously centuriated land (p. 286, 13 La.):

assis inter eos fines quod feci. Livy 1.16.7 reports that, before apotheosis, Romulus Quirinus appeared to Proculus Iulius and said that heaven willed that Rome be *caput orbis terrarum*; at 1.45.3, the Latin peoples concede that Rome is *caput rerum*.

¹⁴ *Caput* designating the starting point for rivers and such appears e.g. in these texts: *rivi ab origine, id est a capite, donec in mari defluant*, Sic. Flacc. *De condicionibus agrorum* 150, 12–13 La. (= p. 114, 12–13 Th.). Cf. *ad caput amnis*, Plaut. *Trin.* 940; *Tiberis ... caput*, Varro, *Ling.* 5.29; *ad capita quae vocant Sari Fluminis*, Livy 33.41.7; *fluminaque ad caput incipient revocare liquores*, Prop. 2.15.33.

¹⁵ e.g. Balbus (Trajanic geometer), *Balbi ad Celsum expositio et ratio omnium formarum*, p. 107, 20–4 La.: *quod si ab eadem recta linea ducenda fuerit quae rectum angulum faciat, ex quolibet puncto qui per caput recta linea transeat rectam lineam eicere, per cuius signum quod est in circumferentem lineam a capite rectae lineae recta linea transeat factura in data linea rectum angulum.*

¹⁶ On the uncertain date of his life, see *OCD*^{3rev} 'Siculus Flaccus'.

¹⁷ Sic. Fl. *De condicionibus agrorum*, p. 142, 5–11 (esp. 9) La. = p. 106, 5–11 Th.: 'In fact, in certain regions, *rigores* and thickets often form a boundary over long distances and between many landowners, so that sometimes boundary stones are found placed only along the spaces of individual landowners, that is *from head to head* – that is from the beginning of a line up to a line ending, from where the boundary of another possession should begin to be observed.' (*In quibusdam vero regionibus saepe per longum spatium et inter multos possessores rigores dumique finem faciunt, ut aliquando tantum modo per singulorum possessorum spatia, id est a capite usque ad caput, positi inveniuntur termini, hoc est a fine incipiente usque ad finem deficientem, unde alterius possessionis finis incipiat observari.*) Uses of *caput* include 'the point from which a road ... extends' (*OLD*, s.v. *caput* 11, b.). This use is related to boundaries, because *limites* (boundary tracks) were often used as paths.

¹⁸ *caput agri* at p. 355, line 10 La. (*De iugeribus metiundis*), *caput limitis* at p. 307, line 16, La.: *terminus si fuerit quinque pedes intra litem, aliis quique pedibus in caput limitis terminum invenies*, Auctor Vitalis). *CIL* 2546: (*Ateste*) *caput limitibus Lontriconis permutatum ex d(ecreto) d(ecurionum)*. Cf. *CIL* III 9315, 7 [Cippus near Saloniae]: *finis loci ... item a cap(ite) sinis(tro) lon(gum) p(edes) [tot]*.

¹⁹ See *caput centuriae*: e.g. 286.13 La.; 288.7 La.; 293.2 and 18 La.; 344.16 La.; 353.11 La. A definition of *caput centuriae*, 'tête de centurie, désigne l'angle d'une centurie ...', (citing Iunius Nipsius 286.13, 293.2 La.) appears in the online lexicon *Dictionnaire des terms et expressions de l'arpentage Romain* at <<http://www.archeogeographie.org>> under 'Arpentage romain'. An early published version is in Chouquer and Favory (n. 4, 2001.). See also Chouquer and Favory (n. 4, 1992).

cum in agro assignato veneris et lapides duo contra aliis alios *in capitibus centuriae* in decimano sive in cardine inveneris, incipies mensuram agere ab eo lapide centuriale unde possis pervenire ad centuriam in qua mensurae agenda sunt.

When you have entered parcelled land and have found two stones opposite one another *at the heads of the century* on the *decimanus* or on the *cardo*, you will begin to take measurements from the centurial stone from where you can pass to the century where measurements must be conducted.

Nipsius' phrase 'at the heads of the century' (*in capitibus centuriae*) refers to the four corners of one century (perhaps to the juncture of two or more centuries), where 'you find two stones opposite one another at the century's heads'. In another passage, textually corrupt in Lachmann's edition, Nipsius uses the phrase *capitibus centuriae* again: using a surveyor's device called a *groma*, 'you will conduct measurements so that you know first whether there are markers [*signa*] at the heads of the century [*in capitibus centuriae*]'. 'Heads' of a century were its corners marked by *termini* or boundary stones.²⁰

Other surveyors refer to in-ground or underground markers (*sub terra*) at the 'heads of centuries'. As the authors Vitalis and Arcadius explain (p. 344.16 La.):

terminos emiciclores vocavimus hos quos in capitibus centuriarum sub terra posuimus.

We called *emiciclores* [or *hemiciclores*] those boundary stones that we placed under the ground *at the heads of centuries*.

Another passage provides a legend for symbolic letters on stones and maps. Its 'title' is (353. 10–12 La.):

litterae singulares quae in diversis locis inveniuntur, ubi termini *in capitibus centuriae* sub terra inveniuntur.

Individual letters that are found in various places where boundary stones are found *at the heads of a century*.

The term *caput centuriae* (for the junctures of century boundaries) is significant for the argument that follows, because it situates *caput* within the semantics of land-survey.

caput bubulum in land measurement

Suetonius (*Aug.* 5, above) poses a problem for the argument: he associates 'oxen' with *caput*, thus opening the possibility that there were *bucrania* displayed at the site of Augustus' birth. But an alternative interpretation is possible: *caput bubulum*

²⁰ Junius Nipsius, p. 288, lines 4–7, La.: *comprehendes quattuor signa ea quae posuisti in limitem. aliis corniculis* ['arms' of the *groma* device] *tenebis alium limitem. et sic mensuras ages ut scias primum an in limitis lapidum in capitibus centuriae signa sint*. Some confusion arises because, alternatively, Nipsius may here refer to inscriptions on 'the tops of stones' (*lapidum in capitibus*); see p. 286, line 16 La.: *si decusati in capitibus lapides fuerint* ... The tops of Gracchan *cippi* are so marked: see J. Rykwert, *The Idea of a Town* (Cambridge, MA, 1988), p. 62, fig. 25; examples also appear in E.H. Warmington, *Remains of Old Latin*, vol. 4 (Cambridge, MA, 1936).

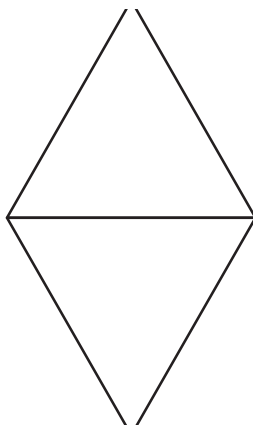


FIG. 1: A *caput bubulum*, accompanying p. 354, 20–24 La. (after fig. 336 La.)

was an informal descriptive term in geometry. If we believe the late surveyor's text *De iugeribus metiundis* (p. 354, 20–24 La.), a *caput bubulum* was a landform divisible into two abutting equilateral triangles:

ager si *caput bubulum* fuerit, id est duo trigona isopleura iuncta, habentia per latus unum perticas L, unius trigoni latus in alterius trigoni latus duco, id est L per L: fiunt IID, quod sunt iugera VIII, tabulae IIs, perticae XVI.

If a field is an 'ox head' [*caput bubulum*], that is two equilateral triangles joined together, having along one side a measure of 50 *perticae* – I draw the side of one triangle upon the side of the other triangle, that is, 50 *perticae* alongside 50 *perticae*: 2500 *perticae* are made, which are 8 *iugera*, 2 ½ *tabulae*, 16 *perticae*.

The ninth-century Gudianus manuscript supplies a drawing (fig. 336 La.) to accompany the passage, as in figure 1. Perhaps the two abutting triangles (above) bore the name *caput bubulum*, because geometers thought the composite 'diamond' shape resembled an ox head.

But Suetonius uses the plural *capita bubula*, not the singular *caput bubulum*. This might pose a problem for the argument. A response relying upon ideological symbolism will be presented later. For now we can surmise that the purpose of imposing the 'ox head' upon a landscape was to estimate the area of the landform by calculating the area of its interior triangles. Other discussions in the texts of surveyors imply that several *capita bubula* could be combined to calculate area. For example, the *De iugeribus metiundis* (356.11–20 La.) extends such calculation by triangular partition to hexagonal landforms: one multiplies the area of one triangle by six (or adding six).²¹ A line drawing of a hexagon accompanies this discussion

²¹ *De iugeribus metiundis*, p. 356, lines 11–20 (La.): ager si fuerit sex angulorum, in quadratos pedes sic redigitur: esto [h]exagonum in quo sint per latus unum perticae XXX. latus unum in se multiplico, id est tricies tricen: fiunt perticae DCCCC. huius summae tertiam partem statuo, id est CCC. nihilo minus ex eadem pleniori summa decimam partem tollo, id est XC. quae pariter iunctae faciunt CCCXC. quae sexies ducendae sunt, quia sex latera habet: quae summa colligit perticas IIICCCXL ('If a landform has six angles, it is rendered in square feet thus: let there be a hexagon in which there are 30 *perticae* per individual sides. I multiply one

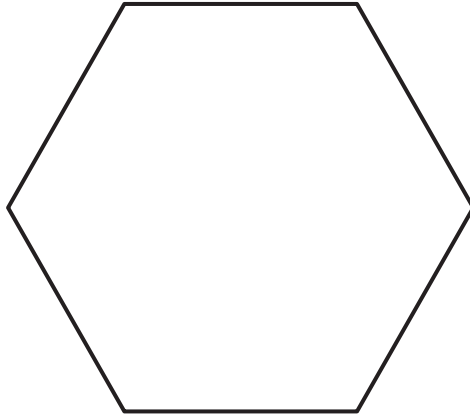


FIG. 2. Hexagon accompanying p. 356.11–20 La. (after fig. 342, La.)

(fig. 342, La.) as in figure 2. While this drawing lacks interior triangles, crucially the argument in the text shows that methods of calculating the area of a triangle within a *caput bubulum* (through partition into equilateral triangles) were extended to hexagonal landforms.

While the *De iugeribus metiundis* was probably written later than Suetonius (above), authors within the *Corpus Agrimensorum* dating roughly to the time of Suetonius (early second century) produce discussions similar to those above. Marcus Iunius Nipsius (second century) discusses measurement of geometric forms by triangular partition (pp. 289, 18 and 301, 14 La.); the surveyor Balbus (Domitianic or Trajanic) implies this potential in his treatise, when he describes not only rectangular and triangular landforms, but other polygons, such as the pentagon and hexagon (*Balbi ad Celsum expositio et ratio omnium formarum*, 105.16–107.5).²² Moreover, the *Liber coloniarum* in the *Corpus* mentions the measurement tracks (*limites*) along the hypotenuse, which refers to triangular calculation (perhaps division of a quadrilateral landform).²³ Finally, in the middle to late first century, Columella's work on agriculture (*De re rustica* 5) contains methods of measuring the areas of farmland; his calculation of a hexagonal landform probably inspired those in the later *De iugeribus metiundis*.²⁴

side on to itself – that is 30 times 30 [or length of the side squared]. 900 *perticae* result. I establish a third of this sum – that is, 300. None the less, I take one tenth of the larger sum – that is, 90. These sums, joined equally, form 390. [So far, the instructions calculate the area of a triangle.] This sum must be drawn six times, because it [the hexagon] has six sides; this sum gathers 2340 *perticae*'.

²² For Balbus and Iunius Nipsius, see *OCD*^{3rev}.

²³ See *limites ypotenusales* at *Liber coloniarum*, 249.24 La.; this may be the same as *limites diagonales* at *Liber coloniarum*, 248.17. Cf. the use of *termini quadrati*, squared boundary stones, to mark a hypotenuse in construction of the network of boundaries (Gaius et Theodosius, 346, 25 La.): *terminos quadratos sub terra conlocavimus, qui a mensoribus Italiae pro hypotenusa observantur. cathetum vero in terminum praesidentem in formam trifinii conlocavimus*. A *cathetus* is a perpendicular line.

²⁴ On Columella's influence on the *De iugeribus metiundis*, Dilke (n. 4), 52–6, esp. 52 (influence) and 54–5 (hexagonal calculation). Compare *De iugeribus metiundis*, p. 356, lines 11–20 (La.), cited above, with Columella, *Rust.* 5.2.10: *si fuerit sex angulorum, in quadratos pedes sic redigitur: esto hexagonum quoquo versus lineis pedum XXX. latus unum in se multiplico. tricies*

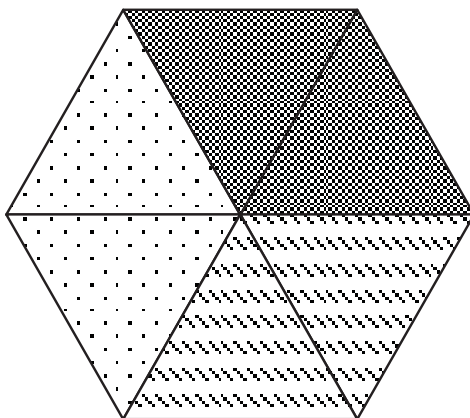


FIG. 3. Hexagon containing three *capita bubula*

Consequently, geometers could easily divide the hexagonal landforms into three *capita bubula* (three pairs of equilateral triangles) and then add the area of three such 'heads' as in figure 3. The lines inside figure 3 illustrate the partition of a hexagon (fig. 2) into six interior triangles. The shading illustrates the grouping of three *capita bubula* within the hexagon, centred upon the hexagon's 'hub'.

Admittedly, we lack direct evidence that the surveyor's geometric term *caput bubulum* was known in Augustus' time. Nevertheless, the very existence of the term and its casual usage in *De iugeribus metiundis* suggest that it had some prior history. Moreover, Suetonius' toponym *ad Capita Bubula* may be explained through the geometry of land survey, in which the plural *capita bubula* would refer to three 'ox-head' landforms joined at a centre to form a larger hexagonal structure.

III. IDEOLOGICAL CONTEXT OF *AD CAPITA BUBULA*

Could Suetonius' toponym refer (however indirectly) to these geometric structures – that is, to a hexagonal juncture of land units centred on Augustus' birthplace near the *Curiae Veteres*? An examination of monuments near the site called *ad Capita Bubula*, such as the *Curiae Veteres* and the curious *Meta Sudans*, imply an ideological context in which Augustus' supposed birthplace was retroactively 'woven' (even after his death) into the centre of Rome's urban structure. This topographic network was articulated by the centremost Augustan regions, whose boundaries notionally converged along major roads at Rome's centre near Augustus' birthplace.

The Curiae Veteres and urban regions

Older monuments protruded into the topography of imperial Rome to provide evidence of Rome's prior structure. One such monument was the *Curiae Veteres*. At its origin, Rome's citizen body (of patricians) was organized by lineages into

triceni fiunt DCCCC. huius summae tertiam partem statuo CCC. eiusdem partem decimam XC. fiunt CCCXC. hoc sexies ducendum est, quoniam sex latera sunt, quae consummata efficiunt duo milia trecenteni et quadraginta. tot igitur pedes quadratos esse dicemus.

thirty *curiae*, which were divided into three tribes (supposedly created by Romulus), each containing ten *curiae*. The *Curiae Veteres* was the collective sanctuary (and a nostalgic reminder) of these archaic *curiae*.²⁵ Famously, the rites of seven of these *curiae* (four names are known: *Foriensis*, *Rapta*, *Veliensis* and *Velitia*) 'were not able to be evoked' from their traditional locale for resettlement into the *Curiae Novae* (Festus, 181 L): king Tullus Hostilius built the *Curiae Novae* as the sanctuary in which to merge the rites of the older *curiae* with those of newcomers, who had been forced to transfer from Alba Longa to Rome after its conquest. The location of the traditional *curiae* at the eastern corner of the Palatine and their refusal to be removed testify to the symbolic anchoring of the city at a major turn of Romulus' original *pomerium* around the Palatine Hill (Tac. *Ann.* 12.24).²⁶ The stubborn persistence of the *Curiae Veteres* marked the old centre which stood, as we shall see (cf. Serv. *ad Aen.* 8.361, above), near the birth place of Augustus which was *ad Capita Bubula*.

Excavations (1989–90) on the slopes of the Palatine (supervised by C. Panella) have tentatively located the *Curiae Veteres* near the eastern pylon of the Arch of Constantine, where a small but luxuriously decorated building (with marble revetment) was found and, below it, a votive *stips* containing offerings dating from the Archaic period to the Late Republican period. This archaic deposit suggests a ancient sacredness appropriate to the *Curiae Veteres*. Moreover, a juncture of ancient roads at the foot of the Palatine (near the Arch of Constantine) indicates a convergence of regions at this corner of the Palatine. At least during the imperial period, the boundaries of the four, or five, innermost Augustan regions followed roads to converge here (*regiones* II, III, IV, IX and, perhaps, I).²⁷

The Meta Sudans as symbol of metatio

A second monument near this same convergence was the *Meta Sudans*; its significance for the argument lies not only in its location, but also its name. Like the *Curiae Veteres*, the *Meta Sudans* stood near the site *ad Capita Bubula* – that is, near the site of Augustus' birth – and at the convergence of the same roads dividing innermost administrative regions 'at the Ox Heads'. The fact that the location *ad Capita Bubula* roughly coincides with that of the *Meta Sudans* suggests that the name *Meta Sudans* may be significant, because *meta* (also *moeta* or *mita*) was a surveyor's term for markers used in *metatio*, or the act of defining boundaries with *metae*.²⁸ As a result, the topographic coincidence of *ad Capita Bubula* with the *Meta Sudans* extends to semantics: both toponyms may derive from the language

²⁵ On the *curiae* in archaic Rome, see e.g. G.W. Botsford, *The Roman Assemblies from their Origin to the End of the Republic* (New York, 1909), 1–47, esp. 8–15; L.R. Taylor, *Roman Voting Assemblies* (Ann Arbor, 1966), 3–5; R.E.A. Palmer, *The Archaic Community of the Romans* (Cambridge, 1970). Curial assemblies included the *comitia curiata* (Varro, *Ling.* 5.155; Dion. Hal. 2.21–3, 47.4) and certain *feriae* (like the *Fornacalia*, February 17; Ov. *Fast.* 2.513–32, esp. 527–32).

²⁶ M. Torelli, 'curiae Veteres', *LTUR* v. 1 (1993), 337. The *Curiae Veteres* may have been close to the *Vicus Curiarum* in *regio* X, the Palatine (*CIL* VI 975), see PA 572. Tacitus (*Ann.* 12.24) mentions the *Curiae Veteres* as one of the corners of the old sacred boundary (*pomerium*) that Romulus established around the Palatine settlement.

²⁷ C. Panella, 'Meta Sudans', *LTUR* v. 3 (1996), 247–49; M. Torelli, 'Curiae Veteres', *LTUR*, v. 1 (1993), p. 337.

²⁸ OLD s.v. *meta*, 1 d.

of land surveyors. This semantic coincidence aligns well with the archaic function of the *Curiae Veteres* as the central meeting place of Rome's original *curiae*.

But one problem in the name *Meta Sudans* is the appended participle *sudans*, 'sweating', which refers not to surveying, but to the function of this *meta* as a fountain: the *Meta Sudans* was a monumental, cone-shaped public fountain. The participle indicated the water rolling down the sides of the cone. The *Meta Sudans* appears on *sestertii* from c.E. 80 (Titus),²⁹ but Seneca refers to it in a letter (*Ep.* 56.4) datable to c.E. 62–5. So there has been some discussion of when exactly the *Meta Sudans* was erected and what if any prior structure existed at the site of the *Meta Sudans*. The excavations involving the *Curiae Veteres* (above) extended also into the foundations of this fountain, whose superstructure was still partially visible prior to Mussolini's reconstruction of the area. What these excavations show is that the *Meta* stood at the intersection of four very ancient roads, which much later became the boundaries dividing the innermost Augustan *regiones*. The supervisor Clementina Panella has argued that this disposition of the urban space and roads makes it probable that, near the *Curiae Veteres*, 'an older (Augustan?) "sign" of juncture [a preceding *Meta*] had existed, which was destroyed in the fire of c.E. 64 and was no longer maintained within Nero's palace ... but was recovered and monumentalized by the Flavians'. After the Great Fire of c.E. 64, Nero had appropriated as private imperial property what had once been public space: here he built his famed palace, the 'Golden House'. The subsequent Flavian rulers marked a change in rule by restoring to the people the public, sacred spaces that Nero had appropriated. Seneca's letter (c.E. 62–5) is referring to an earlier version of the *Meta Sudans*, prior to the Great Fire, prior to the extant remains and, therefore, prior to Nero's usurpation of and consequent reshaping of this previously public landscape. Unfortunately, excavations have found that the Flavian (re)construction of the *Meta Sudans* set such deep foundations that they destroyed any trace of prior foundations. Consequently, our evidence for a *signum* or *meta* prior to the Flavian *Meta Sudans* is only indirect. Alluding to the surveyor's term *caput bubulum*, Augustus' adjacent birthplace, *ad Capita Bubula*, confirms such evidence as Seneca's letter (56.4), the location of the *Curiae Veteres*, and the intersection of both major roads and the centremost Augustan regions.³⁰

²⁹ Certain *sestertii* of Titus (c. c.E. 80–1) usually show the *Amphitheatrum Flavium* flanked by the *Meta Sudans* and another two-tiered building (aqueduct, *Thermae Titi*, Mart. *Spect.* 2). One example (*BMC* 262, 190; *RIC* 129, 110; C. 399, 400; *Bauten Roms* 32, 52) shows a completed *Amphitheatrum* in bird's-eye perspective with the *Meta Sudans*, left, and, right, another building; the reverse bears the inscription 'IMP T CAES VESP AVG P M TR P P P COS VIII / S-C'. Another example inverts the flanking monuments; *RIC* 110 var. C. 400 var.; *BMC* 190 var.; *Bauten Roms* 52 var. 25, 44 g.

³⁰ On Seneca's letter (56.4) and the *Meta* prior to the fire of c.E. 64: C. Panella, 'La valle del Colosseo nell'Antichità', *Boll. Arch.* 1–2 (1990), 34–88, at 61–2. Panella's expression 'sign' of juncture may refer to the typical surveyor's use of *signum* as equivalent to *meta* or *terminus*, types of boundary markers. According to Panella, when the Flavians rebuilt the *Meta*, they constructed a solid concrete cylinder as foundation for the central cone, and this core penetrated so deeply (ten metres deep and seven metres in diameter) that it erased and encompassed any pre-existing structures. Surface remains of the later *Meta* existed until 1936, when they were removed to construct the Via dei Trionfi (Via di S. Gregorio today) and Via dei Fori Imperiali. See C. Panella, 'Meta Sudans', *LTUR* v. 3 (1996), 247–9; 'Valle del Colosseo: Area della *Meta Sudans*', in L. Drago Troccoli (ed.), *Scavi e ricerche archeologiche dell'università di Roma 'La Sapienza'* (Rome, 1998), 43–51; 'La valle del Colosseo prima del Colosseo e la *Meta Sudans*', in A. La Regina (ed.), *Sangue e Arena* (Rome, 2001), 49–67; E. Marlowe, "The

What this evidence suggests is that such toponyms and monuments as the *Meta Sudans* and *ad Capita Bubula* may have alluded, at some point in time, to a partition of public land prior to the Flavian and perhaps Neronian constructions, and that this particular locale *ad Capita Bubula* (that is, near the convergence of 'ox heads') was a hub in such a partition. The boundaries of the imperial regions are not precisely known, so we cannot confirm an exact match between the hypothesized hexagonal landform and the administrative divisions of Rome. Yet the structural convergence of roads and regional boundaries implies a broad similarity between the administrative boundaries of public land in Rome and the hexagonal landforms called *capita bubula*. What is proposed here, therefore, is an informal comparison between this regional centre *ad Capita Bubula* and the hexagonal group of *capita bubula*, a comparison similar to ancient geometric analogies (comparison) between landforms and abstract geometric shapes.

Such approximate, informal comparison between ideal geometric forms and actual landforms was common. Caesar describes Britain as triangular or *triquetra* ('three-cornered', *B. Gall.* 5.13; Mela 3.50); Sicily is famously 'triangular' as well.³¹ Admittedly, the writer of *De iugeribus metiundis* advocates a more precise application of ideal geometric shapes than Caesar did; the surveyor aimed to measure *iugera*, or land area. But approximate comparisons are common in Roman surveyor's treatises: surveyors projected broadly comparable geometric shapes upon a landform. Then, by practical measurements and geometric calculations, he estimated the quantity of *iugera* that the landform contained.³² Agennius Urbicus (possibly fifth century, but commenting on Frontinus, late first century) calls this method *analogia*, or comparison between the landform and a geometric shape.³³

So, the *Meta Sudans* and the toponym *ad Capita Bubula* both may have 'monumentalized' (as Panella may describe it) this kind of professional geometric analogy that aided the repartition of Rome. By recalling the surveyor's 'sign', the *Meta Sudans* confirms that the locale was an urban hub. The toponym *ad Capita Bubula* suggests that, near this site, geometric *capita bubula* were conjoined. But what was the context for application of such place names? Of course, Augustus' announcement of fourteen new urban regions and 265 *vici* or districts within them (7 B.C.E.; Suet. *Aug.* 30.1; Dio Cass. 55.8.7) constitutes the essential political impetus. Having

mutability of things": the rise, fall, and rise of the *Meta Sudans* in Rome', in D. Arnold and A. Ballantyne (edd.), *Architecture as Experience: Radical Change in Spatial Practice* (London, 2004), 36–52.

³¹ Caes. *B. Gal.* 5.13: *insula natura triquetra, cuius unum latus est contra Galliam ...* Cf. ancient visualizations of Sicily, described by Pliny (*HN* 3.86) as *Trinacria* or *Trinacia* from its triangular appearance (*a triangula specie*), by Hyginus (*Fab.* 276.1) as *in triscelo posita*, and by Lucretius (1.717) as endowed with *triquetris oris*.

³² Each paragraph in the *De iugeribus metiundis* starts by comparing a given landscape with a geometric form to section off a landform, which can then be measured by application of geometry: *ager si fuerit in rotundo habens perticas LXXX ...* (p. 354, line 11; La.); *ager si fuerit trigonus isopleurus ...* (354, 16); *ager si caput bubulum fuerit, id est duo trigona isoplura iuncta ...* (354, 20–1); *ager si fuerit inaequalis ita ut habeat in latere uno perticas XL et in alio XXX et in alio XX et in alio VI ...* (344, 1–2); *ager si fuerit lunatus...* (344, 8), etc. See comparisons above.

³³ Such comparisons depend upon visual familiarity with maps and geometric analogy. Agennius Urbicus explicitly identifies *analogia geometrica* – comparison of landform with geometric shapes like the crescent (*luna*) – as important to the surveyor's art (p. 25, lines 21–7 Th.). The date is uncertain, either Flavian or c. c.e. 400 or later, commenting on a text of Flavian origin (p. 25, lines 21–27 Th.).

grown without plan, Rome's urban landscape lacked a simple rectilinear network of streets, such as Hippodamus' or those of the new colonies that Romans founded.³⁴ The application of such techniques of surveying to Augustus' renewal of Rome would signal his creation of greater order out of what was less orderly, for the sake of better administration. Owing to the complexity of the city, this process would have taken time, perhaps years. But how was this survey conducted, and under what administrative authority?

Augustus' census of 8 B.C.E. and his urban reapportionment

The answer closest to hand rests upon the views of L.R. Taylor and the development of her views by A. Fraschetti. Taylor and Fraschetti treat Augustus' repartition of the city as an aspect of his revision of the worship of the *Lares compitales* (local deities of the crossroads) along with the *genius Augusti* (the protective spirit of the emperor) at shrines for each *vicus* or district. According to Taylor and Fraschetti, Augustus' revival of the *vici* – and repartition of Rome's regions and districts – were within his authority as *pontifex maximus*, the chief priest of the state, an office Augustus assumed in 12 B.C.E. At that time, Augustus opened part of his home as a public space for the worship of Vesta; then his personal *genius* and *Lares Augusti* could then be distributed as public objects of worship to the neighbourhood shrines.³⁵

But, as Bert Lott (n. 36) explains, there are problems with this line of argument. Lott disagrees with the automatic assumption of public-private mingling, saying that no public rites were given to Augustus' Penates or to his Vesta (Augusta) during his lifetime (Ovid, *Met.* 15.864–5, indicates a distinction between Augustan and the public Penates). Secondly, conceding that religious reform was a very significant aspect of the neighbourhood reforms in 7 B.C.E., Lott rightly emphasizes pragmatic functions: 'the reforms were equally designed to improve municipal government from an administrative and organizational standpoint' using the *compita* as distribution points for the dole and as organizational structures for fire brigades. Thirdly, and most significantly, the office of Pontifex Maximus did not grant the holder power to repartition the city's plan and revise its services. The emperor needed to base his authority to repartition the city upon a traditional office and its powers. The position of *pontifex maximus* was not that office. Moreover, as Lott observes, the historical sources (Suetonius and Dio) treat the Augustan reform of regions and districts as a single event. While some *vici* had previously existed, others were newly created. These newly established *vici*, mingled with the old, and the new repartition of fourteen regions (not four as previously) constituted a thoroughgoing administrative revision. Such extensive reform would have caused chaos, Lott argues, if it had been implemented in a gradual fashion. One event was needed to announce, certify and seal the state or condition of the 265 *vici* within the new

³⁴ Arist. *Pol.* 2.8 reports that Hippodamus of Miletus invented town planning using grid plans. Cf. Strabo 14.2.5. Plato's proposed ideal city borrows Hippodamean geometric principles: N. Golding, 'Plato as city planner', *Arethusa* 8.2 (1975): 359–371; H. Rosenau, *The Ideal City in its Architectural Evolution* (Boston, 1959), 11–21. Evidence of this geometric ideal appears in Vitruvius 1.6.

³⁵ L.R. Taylor, *Divinity of the Roman Emperor* (Middletown, CT, 1931), 181–91. A. Fraschetti, *Roma e il principe* (Rome, 1994), 345–74.

fourteen regions.³⁶ So, again we ask, upon what authority did Augustus revise administrative districts?

Lott supplies an intriguing answer – that Augustus accomplished the repartition with powers associated with the Roman censor.³⁷ According to Lott, the reform of regions and districts was an evolutionary process involving varied initiatives starting from as early as 33 B.C.E. Some were in religion and art (giving fine new statues of gods and the *Lares* and *genius Augusti* to neighbourhoods). But among these initiatives were also censorial reassessments and reapportionments of urban space. Under censorial powers, Augustus gradually devoted more and more attention to reclaiming public space from private landholders as well as to donating statues and altars of gods to neighbourhood shrines (at the crossroads or *compita* of the *vici*). These activities increased in anticipation of a major official announcement in 7 B.C.E. – the certification of new regional and neighbourhood boundaries.

Key here is the reapportionment of public and private property in the censorial process prior to a ceremonial conclusion, involving official declaration of a new urban structure in 7 B.C.E.³⁸ Lott offers the credible hypothesis that the important authoritative context for such reapportionment was Augustus' census in 8 B.C.E. (*Res Gestae* 2.8; Dio Cass. 53.6.6–7; Suet. *Aug.* 27). First, Augustus returned from abroad in 8 B.C.E. and accepted a renewal of supreme power (Dio Cass. 55.5.2, 55.6.1). Augustus himself attests (*Res Gestae* 2.8) that in that year he conducted a census under this consular power (*iterum consulari cum imperio lustrum | solus feci C. Censorino et C. Asinio cos.*). Dio (55.6.6–7) may confirm this census, but indirectly, when he says that in 8 B.C.E. Augustus enlarged the *pomerium* (see Tac. *Ann.* 12.23): τὰ τε τοῦ πωμηρίου ὄρια ἐπηύξησε. Dio is probably misinterpreting his sources for the census of 8 B.C.E., but the implied impact upon the city seems clear enough: the census of 8 B.C.E. affected the physical disposition of space within the *pomerium*. Augustus did not enlarge Rome's *pomerium* in absolute terms, but he reapportioned the city's internal boundaries, so that he increased public space

³⁶ J. Bert Lott, *The Neighborhoods of Augustan Rome* (Cambridge, 2004), 86–7.

³⁷ For the prelude to the announcement of new regions in 7 B.C.E., see Lott (n. 36), 85; on the mechanics of the reorganization, *ibid.* 81–98.

³⁸ Nicolet (n. 6), 152–6 observes that operations 'recovering land parcels usurped from public land' had long been recorded in both registers and maps (P. Cornelius Lentulus in 172 B.C.E. recorded parcels in Campania on a bronze plan or map: *formamque agrorum in aes incisam ad Libertatis fixam reliquit*, Granius Licinianus, p. 10 F). Other sources indicate detailed records involved in 'reapportionment'. The jurist Ulpian (*Dig.* 50.15.4) defines descriptive content for records gathered through the census (*forma censualis*): the name of each parcel, its location (city, district), neighbouring properties; number of *iugera* of arable land (*arva*), quantity of vines, etc. Siculus Flaccus (126.15 Th. = 161.26 La.) used the term *vocabula villarum agrorumque* for registered names of properties. The listing of property names with relevant data was one registration method; the other was a map, a *forma* (*typus* or *aes*; Nicolet 164, n. 13), graphed into quadrants. Cadastral maps showed the quantity and ownership for apportioning taxes; they had probably existed in Rome prior to Augustus (Nicolet, 149–63). The *Tabula Heracleensis* requires that owners of land abutting public roads maintain these roads and pay penalties if they do not (maps are implicit). Evidence preceding the *Forma Urbis Romae* (c.E. 203–8) includes famous cadastres at Orange engraved on marble (c.E. 77) and maps and drawings accompanying texts of the *agrimensores*. Agrippa's geographic map (Nicolet, 98–111), displayed in the *Porticus Vipsania* in the Campus Martius (98–100), was completed in the same year of the new urban regions in 7 B.C.E. (Dio Cass. 55.8.3–4 and Plin. *HN* 3.17).

by reassessing private properties (for taxation?), by finding public lands usurped by private citizens and by reappropriating it for public use.³⁹

Inscriptions upon *cippi* well attest Augustus' reassessment of public and private space.⁴⁰ Relevant to the current argument is the evidence of a particular crossroad (*compitum*) and its shrine, within an Augustan *vicus*. As discussed by Lott ([n. 36], 76–7), this crossroad consisted of an 'open paved plaza' around an elevated tufa platform covered with marble revetment; this platform was in the middle of the intersection of the *Clivus Suburbanus* and an unnamed street up the Cispan Hill. A large travertine altar stood at the rear of the platform; before the altar was a statue of *Mercurius*, given to the *vicus* by Augustus. Although the statue is missing, the inscribed base survives to record the donor and the god represented.⁴¹ But most importantly, a nearby boundary stone (*cippus*) announced by its inscription that the emperor Augustus had restored the location from private hands into public.⁴² Apparently, censorial restoration of public land from private control was related to establishing the public space of certain neighbourhood shrines. We know that such *vici* (districts) and their *compita* (crossroads) were fundamental units in Augustus' urban reformation, which was announced in the following year. Lott seems right, then, to conclude that Augustus used the census in 8 B.C.E. to certify new boundaries between public and private property and the new limits of urban *regiones* and *vici* before the official announcement in 7 B.C.E.⁴³

So, Augustus' census of 8 C.E., certifying new administrative boundaries of regions and districts and their announcement in 7 B.C.E. may have provided the ideological context in which the toponym *ad Capita Bubula* could refer to intersecting triangular regions (geometric *capita bubula*) superimposed upon the centre of

³⁹ M.T. Boatwright, 'Tacitus on Claudius and the *pomerium*, *Annals* 12.23.2–24', *CJ* 80.1 (1984), 36–44 suggests the possibility that Dio erred in saying Augustus enlarged the *pomerium*, when he simply reapportioned public and private land (see Richardson 294 'pomerium').

⁴⁰ For Augustus' reclamation of public space from private usurpation: *CIL* VI 31572 (with *CIL* VI 1262). Cf. the rebounding of the Tiber banks in the inscriptions of four *cippi* (*ILS* 5923a–d = *CIL* VI 31541 c, d, f, h); the agents are C. Asinius Gallus (son of Gaius and C. Marcius (son of Lucius, grandson of Lucius) consuls of the year 8 B.C.E. (A.U.C. 746). Other similar inscriptions of the resetting of boundaries (not just of the Tiber) name Augustus as agent, having *tribunicia potestas* for the seventeenth time, 7 B.C.E. (A.U.C. 747–8): *ILS* 5924a–d. = *CIL* VI 31542 k, l, h and VI 31542s. See P. Southern, *Augustus* (London, 1998), 168–9, 249n7; M. Hammond, *The Augustan Principate in Theory and Practice during the Julio-Claudian Period* (Cambridge, MA, 1933), 88–101.

⁴¹ 10 B.C.E., *CIL* VI 30974 = *ILS* 92: *Imp(erator) Caes[ar] Divi f(ilius) August(us) | pontif(ex) maximus, co(n)s(ul) XI | tribunicia potes(tate) XIII | ex stipe quam populus Romanus k(alendis) Ianuarii apsent(i) ei contulit Iulio Antonio Africano Fabio co(n)s(ulibus) | Mercurio sacrum*. As Lott notes ([n. 36], 182, no. 2), the date (10 B.C.E.), established by names of the consuls, makes this statue base the earliest known physical trace of the *pretiosissima simulacra* (Dio Cass. 54.35.2 and Suet. *Aug.* 57) that Augustus gave with funds donated to him by the people for good luck each New Year.

⁴² *CIL* VI 31572: *[Imper(ator) Caesar Augustus] | [ex pri]vat[o] in [publicum] | restitui[t] | in partem sinistram rec[ita] | regione ad proxim(um) cipp[um] | ped(es) CXLIVS | [et in part]em dextram recta [regione] | ad proxim(um) cipp[um] | ped(es) LXXVII*. See *CIL* VI 162 (another Augustan *cippus* restoring public land from private control).

⁴³ *Ov. Fast.* 6.637–48 mentions this censorship and regulation of the bounds of private and public land: the *Porticus Liviae* (ded. in 7 B.C.E.; Dio Cass. 54.23, 55.8.1, Suet. *Aug.* 29.4) was built upon formerly private land that Augustus inherited in 15 B.C.E., upon the death of the wealthy but infamous Vedius Pollio. (cf. Tac. *Ann.* 1.10; Plin. *HN* 9.77). Exercising his *censura* (647), Augustus razed Vedius' residence to construct the *Porticus*. The house's excess size and *luxuria* (641–4) suggest encroachment upon public land.

Augustan Rome. The location of the *Meta Sudans* would seem, perhaps, to anchor this geometric pattern at the centre of the newly surveyed, newly apportioned, city.

Another element in Lott's argument – the census conducted by Vespasian and Titus in C.E. 73 – offered him retroactive evidence of the possible contents of Augustus' census in C.E. 8. Although not discussed by Lott, the census of 73 offers the present discussion additional evidence of the physical and symbolic centrality of the *Meta Sudans* in the urban scheme.⁴⁴ In his *Natural History*, Pliny cites the dimensions of Rome, including its population, its fourteen regions, and its 265 districts; he uses data from the census of Vespasian and Titus (*imperatoribus censoribusque Vespasianis*, 3.66–7).⁴⁵

moenia eius collegere ambitu imperatoribus censoribusque Vespasianis anno conditae DCCCXXVI m.p. XIII CC, complexa montes septem. ipsa dividitur in regiones quattuordecim, compita Larum CCLXV. eiusdem spatium mensura currente a miliario in capite Romani fori statuto ad singulas portas, quae sunt hodie numero XXXVII, ita ut XII portae semel numerentur praetereantur ex veteribus VII, quae esse desierunt, efficit passuum per directum XX:M:DCCLXV. (67) ad extrema vero tectorum cum castris praetorii ab eodem miliario per vicos omnium viarum mensura colligit paulo amplius LX p.

When the Vespasians were emperors and censors in the year 826 of its foundation (C.E. 73), its walls gathered within their circumference 13 miles 200 ft., enclosing the seven hills. Rome itself is divided into fourteen regions and 265 *compita* for the Lares. The space of the same city, if measurement runs from the Milestone established at the head of the Roman Forum to the individual gates, which today are 37 in number – such that twelve gates are counted just once and seven of the old gates, which cease to exist, are omitted – renders by a straight line twenty miles, 765 paces. (67) But by measurement from this same Milestone through the districts of all the roads to the farthest of structures, along with the Praetorian Camp, it traces a bit more than 60 miles.

Pliny seems to cite the census records of Vespasian and Titus in C.E. 73 for the distances from the *Miliarium Aureum* to the gates. In fact, Pliny cites two different measures of distance: one is 'as the crow flies' (rectilinear distance), and the other is that of winding roads (*viae*) through various neighbourhoods (*per vicos*). According to Lott, 'It is clear that as part of their censorship, Vespasian and Titus collected and certified very precise information on the layout of the city', including the specific number of regions and neighbourhoods (by reference to the crossroad shrines, *compita*), such that 'the maintenance and adjustment of the city's division into regions and neighborhoods lay within the brief of the censors ...' or others appointed with censorial power. Lott suggests that Augustus' census in 8 B.C.E. included similar data related to the 'adjustment of the city's division into regions and neighborhoods'.⁴⁶

Other evidence indirectly supports the idea that Augustus conducted his census by district (*vicatim*). Lott cites fortuitous references in Suetonius to the *recensus*

⁴⁴ On the censorship of Augustus in 8 B.C.E. compared with that of Vespasian and Titus in C.E. 73: Lott 87–88. See Suet. *Vesp.* 8, *Tit.* 6; Vespasian as censor: *ILS* 247 (C.E. 73), 8903 (C.E. 73), 5927 (C.E. 73) 3813 (C.E. 73), 5928 (C.E. 73). Titus as censor: *ILS* 260 (C.E. 72–3), 8903 (C.E. 73), 248 (C.E. 75).

⁴⁵ Plin. *HN* 7.162 also refers to the census of Vespasian and Titus (*censores*).

⁴⁶ Lott (n. 36), 87–8. Cf. the Hadrianic 'Capitoline Base' (*CIL* VI 975=*ILS* 6073), an inscription (in the Palazzo dei Conservatori) dedicated to Hadrian by *magistri vicorum urbis regionum XIII*; it lists the *magistri* of the *vici* of Rome by Augustan regions: see M.T. Boatwright, *Hadrian and the City of Rome* (Princeton, 1987) 27.

– recounts – of citizens conducted according to neighbourhood (*vicatim*) by both Caesar and Augustus (*Iul.* 41, *Aug.* 40). But I would add that the *vici* may have had an archaic, ritual method of counting citizens. During the *Ludi Compitales* (or *Compitalia*, at the beginning of January in the Late Republic and Empire), for each freeborn member of a household one woollen ‘doll’ was suspended at the *compitum* (the local crossroad shrine). A woollen ball was hung for each of its slaves. This old practice might have served as a mode of census taking. Moreover, the Augustan interest in rehabilitating old rites at the crossroad may have made such an archaic method of accounting for *vicini* (neighbourhood population of citizens and slaves) more symbolically attractive.⁴⁷

Another detail implies the symbolic importance of both the *Meta Sudans* and *ad Capita Bubula* in Augustus’ censorial reapportionment of Rome: the *Miliarium Aureum*. Pliny (*HN* 3.66, 67) specifies distances to the City’s gates from the Golden Milestone (*Miliarium Aureum*) and, significantly, locates the Golden Milestone *in capite Romani fori*. This monument is important, because Augustus erected the *Miliarium* sometime after supervising Rome’s network of roads in 20 B.C.E. (Dio Cass. 54.8.4; Plut. *Galb.* 24.4), and the *Miliarium* marked a symbolic convergence or starting point of Roman roads.⁴⁸ Moreover, the *Miliarium Aureum* and the *Meta Sudans* are conceptually parallel. The location of the *Miliarium* ‘at the head of the Roman forum’ mirrors the location of the *Meta Sudans* ‘at Ox Heads’ (*ad Capita Bubula*), because the two monuments stood at opposite ends (*capita*) of Rome’s central road, the *Sacra Via* and its extension leading from the Forum to the Colosseum valley: what connected the *Miliarium* with the *Meta* was physical yet sacred, the *Sacra Via*. The *Miliarium Aureum* and the *Meta Sudans* each marked symbolic hubs within topographic networks; while the *Miliarium* marked the imagined centre of a network of roads, the *Meta* marked an imagined centre of urban regions.⁴⁹

Finally, one might suggest that Vespasian’s and Titus’s re-erection of the *Meta Sudans*, after Nero’s destruction of it, recaptured an earlier censorial symbolism associated with Augustus: the prior Augustan reapportionment between public and

⁴⁷ On *recensus* by *vicus*: Lott (n. 36), 88. For numerical accounting by way of dolls and balls: Festus 272, 15L; Dion. Hal. 4.14; the dolls symbolized the *caput* (personhood) of the freeborn citizens; the balls figured the lack of legal personhood for slaves (Macrob. *Sat.* 1.7.34–5). Propertius 4.1.23 implies *lustratio* or purification of the neighbourhood populace (*parva saginati lustrabant compita porci*), recalling the census with its *ambilustrum* of people by means of *suovetaurilia* (sacrifice of a pig, sheep and bull). The ‘crowd’ (*turba*) at Propertius 4.1.18 (*cum tremere patrio pendula turba sacro*) may be ‘figures hung on trees and structures in certain Italians rituals’: S.J. Heyworth, *Cynthia: A Companion to the Text of Propertius* (Oxford, 2007), 417, citing the suspension of *oscilla* at festivals: cf. Verg., *G.* 2.389, *oscilla ex alta suspendunt mollia pinu*, with Servius’ gloss on *mollia* (as *pensilia* for Bacchus): Servius makes it clear (on line 382) that this concerns *pagi*, rustic equivalents of *vici*. Cf. Varro *apud* Nonius 863.15L (*suspendit Laribus manias, mollis pilas, reticula, ac strophia*), Varro, *Men.* 463 (at Non. 538, 542M). The practice is associated with the *Compitalia* (Paul. Fest. p. 273L; id. p. 108.27–9L), with *Feriae Latinae* (Schol. Bob. ad Cic. *Planc.* 23), and the *Feriae Sementivae* or the *Paganalia* (Ps.-Prob. ad *G.* 2.389; *pagus* or rustic *vicus*). See H.H. Scullard, *Festivals and Ceremonies of the Roman Republic* (Ithaca, NY, 1981), 58–9.

⁴⁸ Richardson 254 (‘*Miliarium Aureum*’); PA 342. See also Tac. *Hist.* 1.27; Suet. *Otho* 6.

⁴⁹ Augustus erected the *Miliarium aureum* behind the *rostra*, 20 B.C.E. (Dio Cass. 54.8), as a point of convergence for great roads leading from beyond the city (Plut. *Galb.* 20). Pliny, *HN* 3.66, reports that the *Miliarium* stood *in capite fori* (Cf. Varro, *Ling.* 5.47, *hinc oritur caput sacrae viae*). See too G. Laing, ‘Roman milestones and *capita viarum*’, *TAPhA* 39 (1908), 15–34.

private lands. By restoring the *Meta Sudans*, the Flavians rebuilt a monumentalized, symbolic boundary marker between private imperial (tyrannical) desire and the Roman people (public land). To rebuild the *Meta Sudans* was to recall Augustus' reclamation of Roman public space from private usurpation and to oppose Nero's erasure of the distinction – his seizure of public land for his personal appetites. Moreover, contrary to Nero's usurpation, the Flavian *Meta* served the public as a public fountain. The census of Vespasian and Titus in C.E. 73 helped reclaim lands from Nero and Nero's 'Golden House'. This censorial restoration explains why the *Meta Sudans* appears with the Flavian Amphitheatre on coins of Titus (c. C.E. 79–81):⁵⁰ the *Meta* beside the new public amphitheatre built on restored public land signalled return to a just Augustan public order.

Cult of the founder and urban order

Another factor informs interpretation of *ad Capita Bubula*: the presumed birth of Augustus 'at Ox Heads' (*ad Capita Bubula*, Suet. *Aug.* 5; and in *Curiis Veteribus*, Serv. *ad Aen.* 8.361). Of course, Augustus' birthplace may have been invented to coincide with the centre of Rome's old administrative boundaries (evident even in the city of 'Four Regions'⁵¹), or perhaps the new regional boundaries were designed around his birthplace. Whether or not this was his actual birthplace, what matters is the 'myth' that the first emperor was born *ad Capita Bubula* – where key roads and the new Augustan regions converged.

After his death, Augustus' wife Livia converted the house of Augustus' birth into a *sacrarium* honouring *Divus Augustus* as a new god. Creation of this *sacrarium* for the deceased, yet divine, Augustus 'at Ox Heads' suggests the additional idea that Augustus was in some sense being treated as a founding hero. According to Irad Malkin, 'The cult of the oikist [founder] was a universal practice in Greek colonies and it took place annually around the tomb of the founder, now buried in the heart of the new city-state: its agora'.⁵² Not that Rome was a Greek colony, but already the cult of Romulus at the *Lapis Niger* in the *comitium* of the *Forum Romanum* (Festus 117L) assimilated Greek cultural practices.⁵³ Of course, the *sac-*

⁵⁰ As Panella notes (*LTUR*, 'Meta Sudans', p. 248), 'the *Meta Sudans* appears, together with the *Amphitheatrum* complete with attic, already on two securely authenticated *sestertii* (RIC II, 129 N. 110 plate 4.60; *BMC* v.2, 262 N. 190 plate 50.2) of the year C.E. 80, and two other *sestertii* (*BMC* vol. 2, 262 and 358, in note, plate 70.1), in which Titus appears with the attribute of *divus* (after C.E. 81)'. The work of Titus and perhaps Vespasian refutes late antique claims that the *Meta Sudans* was a work of Domitian (between C.E. 89 and 96; see discussion in Panella, *LTUR*, 'Meta Sudans', 248). See descriptions in T.L. Donaldson, *Ancient Architecture on Greek and Roman Coins and Medals* (Chicago, 1966) 294–303, nos. 79 and 80. For the *Meta Sudans* and copies shown on coins of Greek cities, see M.J. Price and B.L. Trell, *Coins and their Cities: Architecture on the Ancient Coins of Greece, Rome and Palestine* (London, 1977), 44 and plates nos. 76 (Hadrianic coin of Nicopolis, Epirus, fountain like *Meta Sudans*), 110 (Rome, coin of Titus: Colosseum centre, *Meta Sudans* left), 112 (Rome, coin of Titus, *Meta Sudans*) and 113 (Corinth, fountain like *Meta Sudans*, Domitian).

⁵¹ For the *Regiones Quattuor* prior to Augustus, traditionally dating to Servius Tullius, see Livy 1.43; Varro, *Ling.* 5.45–54; Dion. Hal. 4.14 and PA ('Regiones Quattuor') 443–4. Varro locates various *Argeorum Sacraria* within the four regions (s.v. PA 51–53).

⁵² On cults of Greek city founders, see I. Malkin, *Religion and Colonization in Ancient Greece* (Leiden, 1987), 187–266 (quotation at 189).

⁵³ On the *Lapis Niger*, see 'Sepulcrum Romuli', PA 282–4; F. Coarelli, *Il Foro Romano: periodo arcaico* (Rome, 1983), 161–88 ('Lapis Niger') and 188–99 ('La Tomba di Romolo').

rarium and birthplace of *Divus Augustus*, located *ad Capita Bubula*, was not a tomb of Augustus; nor was it in a known *forum* or *agora*. However, the shrine and its location connect the birth and apotheosis of *Divus Augustus* with the heart or hub of the new regional boundaries. Moreover, if Augustus is a founder parallel with Romulus, then each, having become a god, possessed a shrine, one at either end of the *Sacra Via* and *Summa Sacra Via*; Romulus had the *Lapis Niger* in the *comitium* while Livia converted the home of Augustus' birth *ad Capita Bubula* into a *sacrarium Divi Augusti*.⁵⁴

With regard to Rome's topography, Augustus could be considered a founder because, among other things, he created a new system of administrative regions. However, we know that already in 27 B.C.E. the senate had considered naming Octavian 'Romulus' (as a second father-founder in a political sense), but they avoided negative associations with Romulus' legend (killing Remus) and instead chose to call him 'Augustus', a name still connected with the augury used at the City's initial foundation.⁵⁵ This suggests later currency of an idea, perhaps false, that Augustus had enlarged Rome's *pomerium*, when contemporaries probably witnessed only land survey to recover public land prior to Augustus' repartition of regions and neighbourhoods.

So, after his death, a *sacrarium* to *divus Augustus* was erected at the site of his birth (Suet. *Aug.* 5). This shrine *ad Capita Bubula* connected Augustus' birth and death with the heart of the City – it is comparable to the cenotaph of a founding hero in Greek cities (cf. Romulus' *Lapis Niger*): the shrine and place name symbolized a relation between Augustus and the shape of Rome's administrative order not unlike the 'cults of the founder' within their respective cities.

IV. FINAL OBSERVATIONS

Readers will note that the present discussion has not excluded derivation of *ad Capita Bubula* from *bucrania* because, in addition to applying geometric *capita bubula* to the survey of Rome's urban centre, Romans may also have displayed *bucrania* at the *Curiae Veteres*. Like most things ancient, it is impossible to establish definitively the significance of words and place names. However, since display of *bucrania* is not at all unique, it seems advisable to explore additional explanations. Since scholars have overlooked the *caput bubulum* landform, this paper proposes that the toponym *ad Capita Bubula* derived from a rough similarity between Rome's innermost regions and three conjoined *capita bubula*, that is, converging regions that roughly composing a hexagonal landform with six internal

See also Louise Holland, 'Qui terminum exarasset', *AJA* 37.4 (1933), 549–53, esp. 550, who compares the *Lapis Niger* to a *lapis terminalis*.

⁵⁴ A curious pyramidal monument, called *Meta Romuli* and *Sepulcrum Romuli*, mirrored Augustus' *sacrarium ad Capita Bubula* near the *Meta Sudans*: the *Meta Romuli* once stood between the *Mausoleum Hadriani* and the Vatican (PA 340: 'Meta Romuli' is mentioned in the Middle Ages, *Mirab.* 20, s.v. PA).

⁵⁵ Evidence for the debate over Octavian's title ('Romulus' or 'Augustus') in 27 B.C.E. includes Suet. *Aug.* 7; Dio Cass. 53.16.6–8; Flor. 4.12.66; Serv. *ad Aen.* 1. Ovid (*Fast.* 2.119–44) compares Augustus with Romulus while celebrating the title *pater patriae* (February 5; *Fasti Praen.*, *Inscriptiones Italiae*, vol. XIII, fasc. 2, p. 407; cf. *Aug. Res Gestae* 35). See K. Scott, 'The identification of Augustus with Romulus-Quirinus', *TAPhA* 56 (1925), 82–105. The vote of the title: *Aug. Res Gestae* 34; Livy, *Per.* 134; Ov. *Fast.* 1.608–16.

equilateral triangles, concentrically arranged around a hub. It must be acknowledged that we lack evidence for the exact boundaries of regions and that we cannot, therefore, compare precisely geometric *capita bubula* with Rome's administrative units. However, the name and location of the nearby *Meta Sudans* also suggest that the geometry of land surveyors shaped the articulation of this hub, perhaps since the Augustan period when the new urban regions were delineated.

That this site was thought to be near the birthplace and the *sacrarium* of *Divus Augustus*, the founder of new administrative regions, explains why this *caput* (point of origin) was so ideologically charged. After Nero's death, Vespasian and Titus re-erected the *Meta Sudans* and placed it on coins (with the *Amphitheatrum Flavium*). The symbolism of the *Meta* may have been that it had marked the bounds between private and public space; this would explain Flavian interest in the *Meta*, which otherwise could easily have been just another fountain. Finally, the censorships of Vespasian (and Titus) in C.E. 73 and Augustus in 8 B.C.E. suggest that an earlier Augustan *Meta* and the toponym *ad Capita Bubula* were associated with the censorial reapportionment of private and public land prior to announcement of the new regions in 7 B.C.E. The Flavian restoration of the *Meta* near Augustus' birthplace *ad Capita Bubula* signalled return of public land that Nero had usurped and a return to Augustan limits.

Ball State University

RICHARD JACKSON KING
richardking@bsu.edu