

recusant militarium munerum functionem, quidam adeo ignavi sunt, ut cum dispendio corporis militiae velint necessitatem evadere, iubemus, si ad militiam inutiles resectis digitis iudicentur, curialibus sine aliqua ambiguitate muneribus atque obsequiis adgregari. DAT. XIII KAL. MART. SIRMIO, ACC(EPTA) VII ID. APRIL. REGIO CONSTANTINO A. V ET LICINIO C. CONSS.

Also the passage from the *Digest* 49, 16, 4, 12 deserves to be cited because it shows precisely what is meant: *Eum, qui filium debilitavit dilectu per bellum indicto, ut inhabilis militiae sit, praeceptum divi Traiani deportavit.*

In conclusion, then, the reading *inperitiam* is an error. It could conceivably be an undiscerning gloss, but it is far more likely to be an ordinary misreading of *ineptiam*, from which it retains the prefix *in-* unchanged. The word *ineptia* refers to a physical disability like the loss of a limb or of fingers. Hence a resolution of the lambda as $\lambda(\omega\beta\eta\theta\epsilon\iota\varsigma)$ is practically imposed.

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MOONSHINE IN TACITUS *

There are few tableaux in Tacitus more dramatic than his account of the turning-point in the second phase of the second battle of Bedriacum, fought at night in late October, A.D. 69 amid the flat fields and trellised vineyards four or so miles east of Cremona between the Vitellians marching east and the Flavians marching west: *neutro inclinauerat fortuna*

* In fasciculo Niebuhri memoriae dicato symbolas complures ab antiquariis Anglicis forte fortuna nobis missas auspice dextro in unum congesimus; id inde rationem accipit, quod biographia Niebuhri primaria ternisque voluminibus locupletissima Londinii anno 1852 prodit scripta ab S. Winkworth, *The Life and Letters of B. G. Niebuhr.* (The Life and Letters of Barthold George Niebuhr, and Selections from his Minor Writings. Edited and Translated by Susanna Winkworth. With Essays on his Character and Influence by the Chevalier Bunsen, and Professors Brandis and Loebell. Second Edition. In Three Volumes. - Vol. I. London: Chapman and Hall, 193, Piccadilly. 1852.)

*donec adulta nocte luna surgens ostenderet acies falleretque. sed Flavianis aequior a tergo: hinc maiores equorum uirorumque umbrae, et falso ut in corpora ictu tela hostium cadebant: Vitelliani aduerso lumine conlucentes uelut ex occulto iaculantibus incauti offerebantur*¹⁾: then the cry of the troops from Syria saluting the rising sun, and new courage sprung from a misconception: *undique clamor, et orientem solem (ita in Syria mos est) tertiani salutauere. uagus inde an consilio ducis subditus rumor, aduenisse Mucianum, exercitus in uicem salutasse. gradum inferunt quasi recentibus auxiliis aucti . . .*²⁾. The battle was won, not by courage — for both sides showed the Roman *uirtus* — but by fortune and a false rumour. But for sun and moon, the issue might have been different.

Mommsen, whose view of Tacitus as a military historian was unflattering, once hinted³⁾ that moonshine plays altogether too big a role in Tacitus' account: „Die Schilderung der . . . Schlacht ist an sich leicht verständlich, obwohl sie zu den romantischsten gehört, die die Geschichte aufzuweisen hat, und der Mondschein in derselben eine Rolle spielt, die einem historischen Gewissen schwer aufliegt.“ How far it was in fact a decisive factor in the defeat of the Vitellians is doubtful, and in strictness it should be observed against Mommsen that Tacitus mentions it as a phenomenon, striking indeed in itself, but only marking the beginning of the end: for it is a commonplace of Roman and Tacitean thought that *breuibis momentis summa uerti*. By merely hinting his suspicion, which was never confirmed by a detailed study of the battle, Mommsen contributed to the doctrine that Tacitus is a rhetorician ever ready to sacrifice truth to dramatic effect.

It would be satisfactory if the accused could be definitely convicted or definitely acquitted on this charge, and treatment of a closely-linked problem, that of the date of the battle, might assist in settling the chronology of the events of autumn, A. D. 69, which must be worked out from the very few fixed points which Tacitus has admitted into his narrative. In its turn, a reasonably certain chronology of this year would throw some light upon the numerous dark places of the Year of the Four Emperors and upon Tacitus' handling of his material in the *Histories*.

1 TH iii, 23, 3.

2 *ibid.* 24,3-25, 1.

3 *Hermes* 5 (1871), 172 = GS iv, 365.

In an attempt to defend the reliability of the historian, Nissen obtained from the Bonn astronomer, Bernhard Tiele, an estimate of the times of the rise and meridian passage of the moon for the latitude of Cremona in the period of late October and early November, A.D. 69; this he published in *RhM* 26 (1871), 539, and with these data believed himself able to prove that II Bedriacum was fought on October 28/9, and that Tacitus' account of the moon's behaviour is entirely consistent with the calculations of astronomers. In outline, his argument was the following:

1. The battle took place after Caecina's attempted treachery at Hostilia (which can be dated to October 18 owing to the occurrence on that day of an eclipse of the moon alluded to by Dio Cassius⁴) and before the end of the month (since Caecina, consul perhaps for September and certainly for October, was still consul on the day after the battle, when Cremona capitulated⁵). Furthermore, news of the battle was not known to the senate at its meeting on October 30⁶), and since two days at most were necessary for communications between Cremona and Rome, the earliest date at which the battle could have taken place is October 27/8.

2. Tacitus describes the moon as rising *adulta nocte*, that is, between midnight and 2 a.m. Tiele's table showed the moon as rising at midnight on October 26/7 and at 5 a.m. on November 1.

3. The course of the battle as described by Tacitus demands a late rise of the moon: 23,3 *neutro inclinauerat fortuna donec adulta nocte luna surgens ostenderet acies falleretque . . .* 24 (Antonius' speech, followed immediately by the words) *undique clamor, et orientem solem (ita in Syria mos est) tertiani salutauere*. A late moonrise indicates a date after October 26/7.

4. The date which best suits all the circumstances is October 27/8, and this gives us no inducement to doubt the historicity of Tacitus' moonshine.

Nissen's conclusion is open to a number of objections. Not the least of these is the fact that last quarter fell on either October 25 or October 26, and our conscience is still troubled by the story that a moon so old could throw the deep shadows described by Tacitus. But there are other difficulties in his argument.

4 lxxv, 11.

5 *TH* iii, 31, 4.

6 *ibid.* 37, 2.

In the first place, it is not possible to argue from the senate's ignorance of the battle on October 30 that it could not have taken place before October 27/8. The speed at which the news might be expected to reach Vitellius in Rome from Cremona may be gauged from the speed shown a few days previously by the bearer of tidings from Hostilia. As we have seen, the revulsion of feeling against Caecina's treachery took place on October 18. On hearing the news at Aricia, south of Rome, Vitellius displayed unwonted vigour, *multa cum exultatione in urbem reuectus*. After travelling to Rome (one day's journey) and addressing a *contio* (probably on the following day), he held a meeting of the senate to denounce the traitor and deprive him of his consulship, though it was already the penultimate day of Caecina's *nundinum*, October 30. It is difficult to resist the conclusion that the news from Hostilia reached Aricia on or about October 27, and that consequently the journey from the north took not two, but something approaching nine, days⁷). It would be dangerous to argue that the battle fought near Cremona⁸) which was known to Vitellius after, but not long after, October 30, could not have been fought as early as October 23. It will be necessary, therefore, to consider which date in the range October 23—30 best satisfies our other requirements.

Again, some light is thrown upon the probable date of the battle by a consideration of the movements of the Hostilia legions⁹). After arresting Caecina on the evening of October 18 and electing new leaders¹⁰), they determined to join their fellows at Cremona and marched urgently westwards, south

7 This is in agreement with Cic. *ad Fam.* xi, 6, 1 *Lupus noster cum Romam sexto die Mutina uenisset* . . . The reason for the optimistic estimate of Nissen was the view of Friedländer¹⁰ i, 333 that the *cursus publicus* achieved 120 mp or more per day, a figure reduced to 50 mp by Sir W. M. Ramsay in Hasting's *Dictionary of the Bible*, Extra Volume 375-402, esp. 387-8, followed by A. M. Ramsay, *TRS* 15 (1925), 60-74 and C. W. J. Eliot, *Phoenix* 9 (1955), 76-80.

8 Cremona is slightly more distant from Rome than Hostilia from Aricia.

9 Such a study was made by L. Holzapfel, *Klio* 15 (1918), 115-18, who arrived at the same conclusion concerning the date of the battle as the present writer but by rather different arguments.

10 The words of Tacitus at iii, 13, 2 (especially *recurrrens in principia miles*, a phrase which suggests the return to camp of the main body of troops who had been *per militiae munera dispersi* during the day), and of Dio, lxx, 10 *διαλυθέντες δὲ καὶ ἐς τὰς σκηνὰς ἀναχωρήσαντες μετενόησαν* favour the view that the reaction took place on the evening of October 18. The eclipse of the moon that impressed the troops entered its maximum

of the Po, covering 30 mp on the last day before arrival and immediately thereafter hurling themselves into the fatal night battle. In view of the need for speedy and stealthy action (for the mere fact of this remarkable move shows the Vitellians' fear of the consequences of Caecina's plotting, and especially — witness the murder of the unfortunate Ravennate sailors — their fear of being cut off by the turncoat fleet sailing up the Po behind them) the obvious policy for Fabius Fabullus and Cassius Longus to pursue was to abandon the camp north of Hostilia by night on October 19/20, march the 7 mp to Hostilia on the Po under cover of darkness, and cross the river at first light. Such an operation could easily have been planned and prepared in the twenty-four hours following the arrest of Caecina¹¹). The distance from Hostilia to Cremona by a route south of the Po is approximately 100—110 mp, according to the route taken¹²). In how many days could such a distance be covered by a legionary army in haste?

Without going outside the pages of *Histories* iii we can find sufficient evidence of legionary marching speeds:

1. The fact that Tacitus singles out for comment a day's march of 30 mp presupposes a normal average of some 20 mp or perhaps less.

2. Antonius required two days to march his troops, again under circumstances of some urgency, along the Via Postumia from Verona to Bedriacum, a distance of approximately 40 mp¹³).

phase (11/12) at 9.50 p. m., and, according to Dio, followed the repentance of the troops and the arrest of Caecina.

11 The feverish and desperate haste of the troops is well brought out by the string of historic presents in *TH* iii, 14. Very little reliance can be placed on Dio, when, after describing the eclipse of October 18 at some length, he continues (lxv, 11), omitting all mention of the march to Cremona, οὐ μέντοι καὶ παρὰ τοῦτο οὕτε ἐνέδοσαν, ἀλλὰ τῷ Πρωίμῳ τῇ δευτεραίᾳ διαπραχθέντων σφᾶς δι' ἀγγέλων ἠμολογήσαι ἀντέπεψαν ἀντιπαραινοῦντες τὰ τοῦ Οὐτελλίου προελεσθαι· καὶ ἐς χεῖρας ἐλθόντες . . . The Vitellians may well have sent a reply which reached Antonius τῇ δευτεραίᾳ (October 19), but there can have been little excuse for the idle exchange of invitations to surrender supposed by Holzapfel 117 as a basis for Dio's remarks.

12 The exact route taken by the Hostilia troops is not mentioned by T, but a calculation of bee-line distances is Hostilia — 60 km — Regio nell' Emilia — 27 km — Parma — 22.5 km — Fidenza — 32 km — Cremona = 141.5 km = 93 mp. To this figure we must add something to allow for deviations. Holzapfel's figure of 112 mp is too high, especially as he wrongly causes the Vitellians to recross the Padus at Brixellum (cf. Mommsen).

13 *TH* iii, 15, 2.

3. The Flavian army summoned in the middle of the morning from Bedriacum is described as having reached a point ca. 4 mp east of Cremona *innumbrante uespera*: that is, it covered 16 or 18 mp in the course of some 6 hours' hard marching in order to save a critical situation¹⁴).

4. In a similar emergency, an attempt to save the Capitol from capture, Antonius' army, after two day's rest, covered the distance between Ocriculum and Saxa Rubra (35 mp) in a single December day; but circumstances suggest that the troops started early and Tacitus speaks of their arrival *multo iam noctis*¹⁵). Such a performance could not have been repeated on several consecutive days.

It will be safe in the light of the above instances to suppose that the Hostilia legions achieved not much less, nor much more, than 20 mp on each day of their march before the last¹⁶). If this is so, they required 5 days to cover the 100—110 mp which separate Hostilia and Cremona. Assuming the likelihood of the Po crossing at first light on October 20, we must place their arrival at Cremona on the evening of October 24. (The only credible alternative to this is to suppose that in their haste the troops marched ca. 24 mp on each of 3 days and 30 mp on the fourth, thus arriving on October 23. Such a high average speed seems improbable, but it should be borne in mind as theoretically possible).

While the Vitellians were concentrating on Cremona, Antonius was moving down from Verona to Bedriacum. Apprised of the fact that the Vitellians at Hostilia had rejected Caecina's plan of capitulation and had stolen away, he realised that the moment to strike had come: the enemy at Cremona must be destroyed before they were joined by the larger force from Hostilia and by Valens from the south. After advancing in two days from Verona to Bedriacum, he was able on the third to lure the enemy forth to the first phase of the battle by plundering the countryside. It should be possible to date these moves. The departure of the Vitellians from Hostilia had been executed with some secrecy, but the news cannot have been long in reaching Verona, whether by the mouth of

14 *ibid.*, 16, 1 and 2; 19, 1. 15 78, 1; 79, 1.

16 Cf. also the conclusion of F. Stolle, *Das Lager u. Heer der Römer* (Strassburg, 1912) that on good roads within the empire 20 mp daily was a possible speed for legions (much less in rough country).

line-crossers, of Caecina's secret go-betweens insofar as these had not been arrested by the troops, or of Antonius' reconnaissance parties¹⁷). Information of the enemy's departure during the night of October 19/20 should have reached Antonius on the evening of October 20; and if we allow — as we must — for the possibility that one further day was required for a council-of-war, a decision on the strategical situation and the preparations involved by a move of the *uniuersus exercitus*, we may reasonably deduce that Antonius reached Bedriacum on the evening of October 23. It seems therefore that on both calculations the historical and geographical data point to October 24/5 as the most probable date of the battle.

We have now to discuss Nissen's second and third arguments for selecting the late date October 27/8. Admittedly, the course of the battle as described by Tacitus suggests a late moonrise and therefore a late date within the wider range of possibilities; but it does not impose such a conclusion. To be sure, sunrise appears to follow immediately upon the speech of Antonius to his troops and the speech in its turn appears to follow closely upon moonrise, but when we are dealing with an author so fond of telescoping the less exciting stretches of his narrative as Tacitus (the most egregious example of this is at *A* ii, 8-9), we can build nothing upon this flimsy foundation.

But Nissen's most telling argument concerns the sentence *neutro inclinauerat fortuna donec adulta nocte luna surgens ostenderet acies falleretque*. His view that the unusual phrase *adulta nox* indicates the period between midnight and 2 a. m. is slenderly based. The meaning of *adulta* here can be gathered from Servius' comment¹⁸) *anni quattuor sunt tempora, diuisa in ternos menses. antiqui temporum talem faciunt discretionem, ut primo mense ueris nouum dicatur uer, secundo adultum, tertio praeceps, sicut etiam Sallustius dicit ubique noua aestas, adulta, praeceps*. Sallust appears to imitate Thucydides ii, 19 τοῦ θέρους . . . ἀμείζοντος and Tacitus in his turn says at *A* ii, 23 *aestate iam adulta*; xi, 31 *adulto autumnno*; *H* iii, 86 *praecipiti in occasum die*. Evidently by *adulta nox* Tacitus means the central third of the night, and he uses this literary reminiscence to replace a normal time-indication contained in his source. This source, probably the campaign memoirs of Vipstanus Messalla, present at the battle as commander of legio

17 *TH* ii, 24; iii, 9, 4; 10, 1.

18 On *Vir. G.* i, 43 *uere nouo*.

VII Claudia, may well have recorded with some accuracy the exact time when the tide of battle turned with the rising of the moon¹⁹). What hours, then, comprised the central third of the night during the latter part of October? The careful and convincing arguments and calculations of Bilfinger²⁰) show that from mid-October to mid-November the average figures (which may be applied with only slight adjustment to the days between October 23 and 30) are: sunset, 5.13 p. m.; sunrise 6.46 a. m. The central third of the hours of darkness extended from 9.43 p. m. to 2.13 a. m.

The information we now require is a table showing the times of moonrise at the relevant dates for the latitude of Cremona (+ 45°). We shall then be able to see to what extent an astronomical dating, based upon Tacitus' reference to the moon, is compatible with the dating arrived at from a study of the movements of the Flavian and Vitellian troops, that is, with the adoption of October 24/5.

Tiele, as reported by Nissen, supplied the following figures, which are correct to within less than a quarter of an hour in each case:

Moonrise		Moon's Meridian Passage	
Oct. 26/7	midnight	Oct. 27	7 a. m.
Nov. 1	5 a. m.	Nov. 1	11 a. m.
Nov. 6	11 a. m.	Nov. 6	3 p. m.
etcetera.			

The earlier dates now suggested by troop-movements demand an extension of this table backwards. I owe the following data to the kindness and expert knowledge of Mr. H. W. Richards of H. M. Nautical Almanac Office²¹):

Moonrise		Moon's Meridian Passage	
Oct. 22	7.30 p. m.	Oct. 23	3.50 a. m.
Oct. 23	8.30 p. m.	Oct. 24	4.40 a. m.
Oct. 24	9.40 p. m.	Oct. 25	5.50 a. m.
Oct. 25	10.50 p. m.	Oct. 26	6.40 a. m.

19 Cf. the careful details at 15, 2 *secundis* . . . *castris* . . . *postero die; ad octauum a Bedriaco*; 16, 1 *quinta ferme hora diei erat*; 17, 1 *plures quam centum*; 18, 1 *ad quartum a Cremona*; 19, 1 *innumbrante uespera*; 21, 1 *triginta milia passuum*. This particularisation is quite striking in Tacitus, who is normally notoriously uninterested in figures and movements.

20 *Die antiken Stundenangaben* (Stuttgart, 1888).

21 In a letter to the present writer, dated 16 February, 1956.

Thus the improbable, but theoretically possible, early date of October 23/4 fails to satisfy the requirement that on that night the moon rose *adulta nocte*, for in fact it appeared more than an hour before 9.43 p. m. On October 24, however, our preferred date, the moon rose within 3 minutes of the beginning of *adulta nox*, and several minutes must have elapsed before its light could clear the tree-tops of this wooded region. Nothing prevents our accepting Tacitus' narrative as literally and exactly true to fact.

The following deductions may therefore be made:

1. The second battle of Bedriacum was fought on October 24/5, A. D. 69.

2. The crisis of the night battle (coinciding with the rise of the moon) occurred at 9.40 p. m. and shortly thereafter.

3. There is no reason why the moon, which was one or two days younger than last quarter, might not at that season and latitude have shone sufficiently brightly when low in the eastern sky to upset the aim of the Vitellians confronting it. A little later, as it moved round to the south, it enabled Antonius to see his troops and be seen by them as he made his appeal to the various legions, and it continued (when not obscured by the passing clouds to which Dio lxx, 13 alludes) to illumine the long struggle until shortly before 7 a. m. the sun rose to show the exhausted Vitellians retiring towards Cremona.

4. The information supplied to Tacitus by his source, and by Tacitus to us is shown to be compatible with the findings of astronomy and historical reconstruction.

The suspicions of Mommsen were unjustified. Deborah the prophetess sang how the stars in their courses fought against Sisera: Tacitus tells how the sun and the moon fought against Vitellius. Only a historian who was also a supreme artist could have seized upon this heavenly intervention to show an inscrutable *fatum*, or *fortuna*, dealing the dooms of men. Yet Tacitus did not invent his moonrise and sunrise: he recorded them²²).

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²² I am indebted to my colleague, Mr D. A. West, for helpful comment upon an earlier draft of this paper.