

MAPPING THE ROUTE OF PAUL'S 'SECOND MISSIONARY JOURNEY' FROM DORYLAEUM TO TROAS

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Summary

The road 'down to Troas' (Acts 16:8) has never been thoroughly investigated. An overland route of 400-450 kilometers through the highlands east of Troas is proposed, linking a number of Roman cities, towns and mining sites whose locations have been identified but whose roadways have not yet been documented. Historical studies and archaeological reports in Turkish, European, and American journals are surveyed to suggest the plausibility of this route. Whether such a route in fact existed in Paul's time needs to be investigated by an archaeological expedition specifically aimed at discovering the road network in northwestern Anatolia.

I. Introduction

The route of Paul's travels through Galatia to Troas described in Acts 16:6-8 has never been investigated in detail by archaeologists or historians, even though several hypothetical routes have been suggested since the 1890's.¹ In 1979 W.P.

¹J.A.R. Munro and H.M. Anthony, 'Explorations in Mysia', *The Geography Journal* 9 (1897) 256-58 (with a map opposite 248) propose a central overland route from Cotiaium through Hadrianeia and Hadrianutherae to Scepsis and down the Scamander valley to Troas; see also D.W. Burdick, 'With Paul in the Troad', *Near Eastern Archaeological Society Bulletin* 12 (1978) 36-40. W.M. Ramsay suggested a more northerly route using the coastal highway along the Hellespont in *St. Paul the Traveller and Roman Citizen* (London: Hodder & Stoughton, 1920) 297, apparently followed by the *Hastings Dictionary of the Bible*, extra volume following p. 400. A similar route was proposed by J. Bérard in *Revue archéologique* Ser. VI, V (1935) 82-83. A route through Adramyttion and along the southern coastal highway through Assos to Troas was proposed by T.R.S. Broughton,

Bowers evaluated the evidence and concluded that 'no significant east-west routes are known to have existed through this territory in the time of Paul.'² In the same year *A Chronology of Paul's Life* was published with the calculation of the approximate distance of this journey along 'unknown' roads.³ Even the most recent, critical study Bible⁴ traces the route to Troas with a vague line, disregarding the few roads that have been identified, while arbitrarily crossing mountains and rivers as if Paul traveled by helicopter. An exhaustive survey of published material confirms the assessment that none of the recent studies or maps of Greco-Roman roads in Anatolia show a validated east-west route that matches the description of this journey.⁵ The authoritative article by David French concludes more generally that, with regard to the second

'Three Notes on Saint Paul's Journeys in Asia Minor', in R.P. Casey *et al.* (eds.), *Quantulacumque: Studies Presented to Kirsopp Lake by Pupils, Colleagues and Friends* (London: Christophers, 1937) 137-38.

²W.P. Bowers, 'Paul's Route through Mysia: A Note on Acts XVI.8', *JTS* 30 (1979) 508-509. A few years earlier, C.J. Hemer, 'Alexandria Troas', *TynB* 26 (1975) 101 noted that the route remains 'unresolved'.

³R. Jewett, *A Chronology of Paul's Life* (Philadelphia: Fortress, 1979) 59-61. The British edition was under the title *Dating Paul's Life* (London: SCM, 1979) and a German edition under the title *Paulus Chronologie. Ein Versuch* was translated by G. Koester (Munich: Kaiser, 1982).

⁴See *The Cambridge Annotated Study Bible: New Revised Edition*, with Notes by H.C. Kee (Cambridge: Cambridge University Press, 1993) for a map of Paul's journey at the end of the volume.

⁵See the discussion below of W.M. Calder and G.E. Bean, *A Classical Map of Asia Minor* (London: British Institute of Archaeology at Ankara, 1958); and W.M. Ramsay, *The Historical Geography of Asia Minor* (second edition; Amsterdam: Hakkert, 1962). Additional maps surveyed include D.H. French, *Roman Roads and Milestones of Asia Minor* (Oxford: B.A.R., 1981-88); N.G.L. Hammond (ed.), *Atlas of the Greek and Roman World in Antiquity* (Park Ridge, NJ: Noyes, 1981) maps 20, 26a, and 30; G. Radke, *Viae Publicae Romanae*, PaulyW Supplement 13 (1973) 1417-1686; *Tabula Imperii Romani*, published since 1930, through 1987; for publication details, see R.J.A. Talbert, 'Mapping the classical world: major atlases and map series 1872-1990', *Journal of Roman Archaeology* 5 (1992) 5-38; R.J.A. Talbert (ed.), *Atlas of Classical History* (New York: Macmillan, 1985) map 160; *Tübinger Atlas des Vorderen Orients* (Wiesbaden: Reichert, 1983-94) maps BV8 and BV9.

missionary journey, the 'roads and routes taken by Paul cannot be established' because evidence is lacking at the present time.⁶

An examination of the evidence in Acts and a consideration of travel conditions and urban development in the Roman period suggest the possibility that there were well-maintained roads on the route from Dorylaeum to Troas, the port city that functioned as a 'nodal point on what became a sophisticated system of international routes' in the Roman Empire.⁷ There is a need to survey the evidence on the ground in northwestern Turkey to determine whether there were roads in this region during the Roman period along a route extending somewhere between 400-450 kilometers.⁸ We begin by a brief analysis of the literary text.

II. Acts 16:8-8 in Correlation with Previously Discovered Roads

The crucial text is the account of Paul's route on part of the so called 'Second Missionary Journey.' My translation of Acts 16:6-8 is as follows:

(6) And they went through the region of Phrygia and Galatia, having been forbidden by the Holy Spirit to preach the word in Asia. (7) And coming opposite Mysia they were trying to journey into Bithynia, but the Spirit of Jesus did not allow them, (8) but passing through Mysia they came down into Troas.

What has struck interpreters most forcibly about this passage are the multiple references to frustrated travel plans. The goal of traveling to the province of Asia with its capital in Ephesus was 'forbidden' by the spirit (16:6), which interpreters

⁶D. French, 'Acts and the Roman Roads of Asia Minor', in D.W.J. Gill and C. Gempf (eds.), *The Book of Acts in Its First Century Setting*, vol. 2: *The Book of Acts in Its Graeco-Roman Setting* (Grand Rapids: Eerdmans; Carlisle: Paternoster, 1994) 56.

⁷Hemer, 'Alexandria Troas', 91.

⁸See Jewett, *Chronology*, 60.

take to mean that conditions were adverse,⁹ a heavenly message was received, an 'inner compulsion' felt,¹⁰ or some other unforeseen but currently undefinable circumstance intervened.¹¹ The repeated attempt to travel to the heavily populated cities in Bithynia was disallowed by 'the spirit of Jesus' (16:7), which some have ascribed to adverse circumstances,¹² an intuition ascribed by Paul to Jesus, 'or perhaps even a lack of determination...'.¹³ Others ascribe the fluctuating travel plans to Paul's mission strategy which required urban areas with substantial Jewish populations that were unavailable in the center of Anatolia¹⁴ or to Luke's ignorance about the geography of inner Anatolia.¹⁵ The precise cause of these frustrated travel plans can never be known, given the evidence available to us. But the implications concerning travel routes can be tested with the maps that have long been available, but which have rarely been consulted by commentators.

The road system in southern and central Galatia has been well known since William Ramsay's time,¹⁶ and confirmed by the Calder and Bean 'Classical Map of Asia Minor' published in 1958,¹⁷ making clear where the travel decisions in 16:7 would have led. Passing through the Phrygian and Galatian cities where churches had been founded on the 'First Missionary Journey' of Acts 13-14 would have required travel on the main road north from Antioch and then west to

⁹J. Roloff, *Die Apostelgeschichte*, Das Neue Testament Deutsch 5 (Göttingen: Vandenhoeck & Ruprecht, 1981) 241.

¹⁰I.H. Marshall, *The Acts of the Apostles: An Introduction and Commentary* (Grand Rapids: Eerdmans, 1980) 262.

¹¹L.T. Johnson, *The Acts of the Apostles*, Sacra Pagina 5 (Collegeville: Liturgical, 1992) 285.

¹²Roloff, *Apostelgeschichte*, 241.

¹³French, 'Acts and the Roman Roads', 57.

¹⁴E. Haenchen, *The Acts of the Apostles: A Commentary* (Philadelphia: Westminster, 1971) 486.

¹⁵H. Conzelmann, *Acts of the Apostles: A Commentary on the Acts of the Apostles* (trans. J. Limburg et al.; Philadelphia: Fortress, 1987) 127.

¹⁶W.M. Ramsay, *The Historical Geography of Asia Minor* (second edition; Amsterdam: Hakkert, 1962).

¹⁷The Calder and Bean map was published by the British Institute of Archaeology at Ankara, 1958.

Derbe, Lystra and Iconium. To be in a position to travel into Asia from that point required the highway north and west of Iconium that led to Pisidian Antioch, the gateway to the main road into the central part of Asia and its capitol in Ephesus. Having been prevented from traveling on the main highway west into Asia, the only alternative, according to the available maps, was to travel north into the cities of North Galatia,¹⁸ where Paul apparently missionized for a considerable period of time while being detained by illness (Gal. 4:13-14).

After establishing more than one congregation in Galatia (see Gal. 1:2), Paul departed again on a route that brought him 'opposite Mysia' to a junction that could lead to Bithynia (Acts 16:7). The only possible location for this junction is evident when one studies the system of Roman roads detailed on the Calder and Bean map.¹⁹ Dorylaeum is the point opposite Mysia which has a major highway leading north into Bithynia. Valentine Weber drew this conclusion 75 years ago on the basis of the road system uncovered by Ramsay, that Dorylaeum was the location where the decision not to go into Bithynia was made, noting that the imperfect verb indicates several efforts to travel in that direction.²⁰ Several other scholars agree that Dorylaeum was the decisive junction.²¹ The

¹⁸French, 'Acts and the Roman Roads', 56 observes that part of this journey to the Galatian cities 'was certainly carried out on unpaved tracks or paths', since the first paved road in North Galatia was built in A.D. 80. For the basis of that assessment, see *idem*, *Roman Roads and Milestones of Asia Minor* (Oxford: B.A.R., 1981-88) and 'The Roman Road-system in Asia Minor', *ANRW* II. 7.2 (1980) 698-729. See also I.W. McPherson, 'Roman Roads and Milestones of Galatia', *Anatolian Studies* 4 (1954) 111-20.

¹⁹It is possible, of course, that archaeological investigations will uncover additional roads that raise other possibilities of locating this junction. French ('Acts and the Roman Roads of Asia Minor', 56) suggests that the routes through Galatia were on unpaved roads, because the routes marked in the Calder and Bean map were built in the second century, according to the evidence of milestones.

²⁰V. Weber, *Des Paulus Reisenrouten bei der zweimaligen Durchquerung Kleinasiens. Neues Licht für die Paulusforschung* (Würzburg: Becker, 1920) 33.

²¹K. Lake, 'Note XVIII. Paul's Route in Asia Minor', *The Beginnings of Christianity. Part I. The Acts of the Apostles*, ed. F.J. Foakes Jackson and K. Lake (London: Macmillan, 1933) 5.230; Haenchen, *Acts*, 486; Bowers, 'Paul's Route', 508.

only other direction to travel, if one stayed on the Roman highways as an experienced travel would certainly prefer, was southwest toward Cotiaenum. At this point the Roman road discovered by previous researchers comes to an abrupt stop. There is a map of later Byzantine roads from Dorylaeum through Cotiaenum to Azanoi and Cadi, then SW to Synaos past a lake and then along the Macestus river, past Ancyra and then along the river where no more Byzantine settlements are identified.²² Calder and Bean mark 'other roads' through Azanoi, Kadoi, Synaos, Ancyra and then north to Carsae and Didymoteiche to arrive in Achyraus, well within the borders of the area of Mysia. At this point there is one of the 'other roads' leading west to the seacoast, but no path leading to the Scamander valley which lies directly to the east of Troas.

When Acts 16:8 refers to Paul 'passing through Mysia', I take the verb *παρελθόντες* to mean that he traveled one of these routes but did not stop for missionizing activities.²³ His route from this point must either have aimed at Adramyttium on the seacoast where the coastal highway led through Antandrus and Assos to Troas; or it went overland on roads unknown to modern researchers through the Aisepos and Scamander valleys and down into Troas.²⁴ The expression 'they descended into Troas', would accurately describe a journey down into the coastal city from the mountainous country to the east of Troas.

While the Calder and Bean map in particular points to Dorylaeum where the decision implied in Acts 16:7 was made, there was no way for the journeys west of Dorylaeum to have been made unless the 'other roads' were actually in use during

²²See *Tabula Imperii Byzantini* published by the Österreichische Akademie der Wissenschaften: Denkschriften (philosophisch-historische Klasse). The relevant map is in vol. 211 (1990) 7, entitled 'Phrygien und Pisidien', by K. Belke and N. Mersich.

²³See also Weber, *Paulus Reisenrouten*, 34; Marshall, *Acts*, 262; Johnson, *Acts*, 285; O. Bauernfeind, *Kommentar und Studien zur Apostelgeschichte*, ed. V. Metelmann (Tübingen: Mohr-Siebeck, 1980) 206.

²⁴See M. Brändl, 'Troas', *Das Grosse Bibellexikon* (Wuppertal/Giessen: Brockhaus, 1989) 1600 for the suggestion that Paul's trip to Troas went either through Adramyttion along the coastal road or 'möglicherweise auf Nebenstrassen hinab nach T'.

Roman times. The alternate routes west of Achyraus also need to be investigated to determine which was feasible at the time. As will be seen below, the evidence already available suggests the strong likelihood that there was an overland route from Achyraus through the Scamander Valley to Troas which would match the description in Acts 16:8 with precision.

III. Evidence about the Ancient Sites along the Route from Dorylaeum to Troas

A crucial consideration in the investigation of the roads from Dorylaeum to Troas is whether there were Roman cities, colonies, and mining facilities along the route. My survey of previous research confirms that this is indeed the case. The large number of sites along an East-West route from Dorylaeum to Troas indicates the plausibility of the further investigation, because every town settled and incorporated in the Roman system was supposed to be linked by roads to major centers of administrative and military authority.²⁵ Whether and when this occurred, of course, is a matter for investigation. The following chart indicates the status and approximate location of these towns, listed in a direction from East to West, using the Calder & Bean map. The likelihood of settlement during the time of Paul's journey (ca. 46-48 C.E.) is indicated in the right-hand column, ascertained on the basis of the research of previous archaeologists and historians.²⁶ The left-hand column

²⁵See V.W. von Hagen, *The Roads that Led to Rome* (London: Weidenfeld & Nicholson, 1967); G. Radke, *Viae Publicae Romanae*, PaulyW Supplement 13 (1973) 1417-1686; H.E. Herzig, 'Probleme des römischen Strassenwesens. Untersuchungen zu Geschichte und Recht', *ANRW* II.1 (1974) 593-648; A.D. Macro discusses the policies of urbanization which required the road network in 'The Cities of Asia Minor under the Roman Imperium', *ANRW* II.7.2 (1980) 748-830.

²⁶In addition to Ramsay, Calder and Bean, and the reports of numerous scholarly travellers, the following standard references works have been consulted: A.H.M. Jones, *Cities of the Eastern Roman Provinces* (Oxford: Clarendon, 1937; second edition revised by M. Avi-Yohah, G. Bean *et al.*; Oxford: Clarendon, 1971); M. Grant, *A Guide to the Ancient World: A Dictionary of Classical Place Names* (H.W. Wilson, 1986); D. Magie, *Roman Rule in Asia Minor to the End of the Third Century after Christ*, 2 vols.

indicates the name of the Greco-Roman city, while the middle column gives the name of the Turkish site.

PROPOSED MAIN ROUTE FROM DORYLAEUM
TO ANCYRA IN MYSIA:

Dorylaeum	Near Eskişehir	Large Roman city ²⁷
Cotiaeum	Kütahya	Small Roman city ²⁸
Azanoi	Çavdahisar	Small Roman city ²⁹

(Princeton: Princeton University Press, 1950); R. Stillwell (ed.), *The Princeton Encyclopedia of Classical Sites* (Princeton: Princeton University Press, 1976); J.M. Cook, *The Troad: An Archaeological and Topographical Study* (Oxford: Clarendon, 1973); S. Mitchell, *Anatolia: Land, Men, and Gods in Asia Minor*, 2 vols. (Oxford: Clarendon, 1993); K. Belke and N. Merisch, *Phrygien und Pisidien*, *Tabula Imperii Byzantini* 7; Österreichischen Akademie der Wissenschaften, Philosophisch-historische Klasse 211 (Vienna: Österreichischen Akademie der Wissenschaften, 1990); L. Robert, *Villes d'Asie Mineure. Études de géographie ancienne* (Paris: Boccard, 1962); and numerous articles in W. Pauly and A. Wissowa (eds.), *Real-Encyclopädie der classischen Altertumswissenschaften* (Stuttgart: Metzler; Munich: Druckenmüller, 1893-1978).

²⁷See Strabo 12.8.12; Jones, *Cities*, 37, 60, 65, 67, 160; Mitchell, *Anatolia*, 1.129, 132. One of P. Frei's survey articles dealing with the region around ancient Dorylaeum refers to fragments of the Roman road system, but without precise details: 'Epigraphisch - Topographische Forschungen im Raum von Eskişehir', *Arastırma Sunoclari Toplantisi* 1 (1983) 56, map on 235.

²⁸See Strabo 12.8.12; Jones, *Cities*, 37, 60, 65, 67, 69; Mitchell, *Anatolia*, refers to Cotiaeum as one of the two substantial cities in Northwest Phrygia; Belke and Merisch, *Phrygien und Pisidien*, discuss Cotiaeum on 312-16, but mainly with regard to the Byzantine period. French lists two milestones found near Cotiaeum in *Roman Roads*, 2.141.

²⁹See Strabo 12.8.12; Jones, *Cities*, 60, 65, 67; Mitchell, *Anatolia*, 1.199-200, 214-15; Belke and Merisch, *Phrygien und Pisidien*, 201-203; the excavation reports by Rudolf Naumann and his colleagues indicate substantial settlement from the Roman period: 'Aizanoi 1979', *Kazi Sunoclari Toplantisi* 2 (1980) 135-38; 'Aizanoi Kazilari', *Kazi Sunoclari Toplantisi* 5 (1983) 195-98, with photo on 437; 'Die Ausgrabungen in Aizanoi 1981', *Kazi Sunoclari Toplantisi* 4 (1982) 183-92; 'Ausgrabungen in Aizanoi 1983', *Kazi Sunoclari Toplantisi* 6 (1984) 379-90; 'Restaurierungen und Untersuchungen in Aezani', *Türk Arkeoloji Dergisi* 20.1 (1973) 155-62; R. Naumann and A. Hoffmann, 'Ausgrabungen in Aizanoi 1984', *Kazi Sunoclari Toplantisi* 7 (1985) 311-24. A. Hoffmann and K. Rheidt discuss the Roman bridges at Azanoi in 'Die Ausgrabungen in Aizanoi 1990', *Kazi Sunoclari Toplantisi* 13.2 (1991) 323-40; K. Rheidt's more recent articles also discuss the bridges but not the road system: 'Die Ausgrabungen in Aizanoi 1992', *Kazi*

Cadi/Kadoi	Eski Gediz	Small Roman city ³⁰
Synaos	Simav	Small Roman city ³¹
Ancyra in Mysia	More likely Assarla than Kilissakiöi	Small Roman city ³²

ALTERNATE ROUTE FROM AZANOI TO ANCYRA IN MYSIA:

Alia	Rhyndakos Valley between Azanoi and Egrigöz	Possible Roman settlement ³³
Tiberiopolis	Hassanlar	Small Roman city ³⁴

Sunoclari Toplantisi 15.1 (1993) 515-36; 'Die Ausgrabungen in Aizanoi 1993', *Kazi Sunoclari Toplantisi* 16.2 (1994) 57-74.

³⁰See Strabo 12.8.12; Jones, *Cities*, 44, 60, 81-82; Mitchell refers to the games organized here during Augustus' reign: *Anatolia*, 1.229. The later history is covered by Belke and Merich, *Phrygien und Pisidien*, 285.

³¹W. Rüge, 'Synaos', *PaulyW* 2.4.1326-27 identifies the location on the basis of an inscription and other details; Jones, *Cities*, 89-90 shows the city was formed during the Principate and notes that coins of Nero's period have been found. See also Belke and Merich, *Phrygien und Pisidien*, 395-96; M. Waelkins, *Die kleinasiatischen Türsteine. Typologische und epigraphische Untersuchungen der kleinasiatischen Grabreliefs mit Scheintür*, Deutsches archäologisches Institut 23 (Mainz: Zabern, 1986) 35.

³²See Strabo 12.5.2; 12.8.11; Hirschfeld, 'Ancyra in Mysia', *PaulyW* 1.2222, noting Roman evidence and the likely location on the Macestus River; Magie, *Roman Rule*, 782; Jones, *Cities*, 89-90 who notes the city was founded during the Principate and that Neronian coins have been found; Mitchell, *Anatolia*, 1.181 says the location remains uncertain; Belke and Merich, *Phrygien und Pisidien*, 184-85

³³Alia is not mentioned by Strabo; Hirschfeld, *PaulyW* 1. 1477; Jones, *Cities*, 71 indicates the remains stem from the second to third centuries A.D.; Belke and Merich, *Phrygian und Pisidien*, 180-81 note that coins found thus far derive from Trajan's time; however T. Efe's survey, '1992 Yilinda Kütahya Bilecik ve Eskisehir Illerinde Yapilan Yüzey Arastirmalari', *Arastirma Sunoclari Toplantisi* 11 (1993) 573-74 located classical and Roman ruins in a site that may well be identical with Alia.

³⁴Not mentioned by Strabo; W. Rüge, 'Tiberiopolis', *PaulyW* 2.6. 790-92 discusses its founding by Tiberius in the Rhyndakos Valley, describing various evidences of settlement and earlier theories on location; Magie, *Roman Rule*, 500 and Jones, *Cities*, 89-90 also agree that it was formed during Principate; Mitchell, *Anatolia*, 1.181 says the precise location remains uncertain location, but notes the agonistic games associated with Augustus 1.229; Belke and Merich, *Phrygian und Pisidian*, 404-405 note that the location has not yet been determined but Efe, '1992 Yilinda Kütahya

PROPOSED MAIN ROUTE FROM ANCYRA
IN MYSIA TO ACHYRAUS:

Carseae	Near Cakilli?	Uncertain ³⁵
Didymoteiche	Near Bigadiç?	Uncertain ³⁶
Achyraus	Near Balikesir	Small Roman city ³⁷

PROPOSED MAIN ROUTE OVERLAND
FROM ACHYRAUS TO TROAS:

Hadrianûtherae	Bey-Jköi or near Balikesir	Roman City founded in Hadrian's time ³⁸
Pericharaxis	near Balia Madén	Roman mining center ³⁹

Bilecik ve Eskişehir İllerinde Yapılan Yüzey Arastirmalari', 574 may have found the site of Tiberiopolis, although he was mainly interested in prehistorical sites.

³⁵There is no reference to Carseae in Strabo, *PaulyW*, or Mitchell. Calder and Bean (coordinates d + C) place it at the bend of the Macestus River as it flows north toward the Marmara coast, close to the modern Turkish village of Cakilli, but Robert in *Villes d'Asie Mineure*, 425 contends that the map has erroneous locations for Didymoteiche, Carseae, Germe, Achyraus and Germa. J.A. Cramer, *A Historical and Geographical Description of Asia Minor* (Oxford: Oxford University Press, 1832) 55 observed that Carseae and Didymoteiche surrendered to King Attalus, according to Polybius, which indicates it was a Hellenistic city. The *Euroatlas* marks an otherwise unidentified ancient ruin somewhat north of this location, at Babaköy.

³⁶Not in Strabo, *PaulyW* or Mitchell, but referred to by Magie, *Roman Rule*, 742 and Jones, *Cities*, 36. Calder and Bean (coordinates d + C) place it north of the bend of the Macestus, east of Bigadiç, perhaps at the site of Babaköy, but as noted above, Louis Robert is skeptical of their map at this point.

³⁷Not mentioned in Strabo nor discussed in *PaulyW*, Jones, or Mitchell; Magie, *Roman Rule*, 782, refers to Achyraus as a definite Roman city; Robert, *Villes d'Asie Mineure*, 385 refers to Achyraus as a Byzantine fortress and episcopate, locating it close to Bigadiç.

³⁸Not in Strabo or Mitchell; see Büchner, 'Hadrianothera', *PaulyW* 7.2177 who notes error in Peutinger Table and suggests Ramsay's 'Ancyraus' may be the Byzantine name for this town. Jones, *Cities*, 89 and Magie, *Roman Rule*, 616-17 argue it was founded by Hadrian as first city in middle course of Macestus in an area which had hardly been influenced yet by Hellenism.

³⁹Not in Strabo or Mitchell; W. Rüge, 'Pericharaxis', *PaulyW* 19.720 observes that the location is fixed by an inscription, and that the area has many graves of slaves from Roman times who apparently worked the silver mines; T. Wiegand, 'Reisen in Mysien', *Athenische Mittheilungen* 39

Ergasteria	near Balia Madén	Mining center ⁴⁰
Argiza	Aisepos valley	Mining center ⁴¹
Argyria	Near Kilkim	Roman mining center ⁴²
Polichna	Upper Aisepos Valley between Karaköy and Örencik	Roman mining center ⁴³
Palaiscepsis	Ikizce	Earlier mining center ⁴⁴

(1904) 254-339 identified Balya with Pericharaxis. See also Magie, *Roman Rule*, 44, 798, 803-804 who concludes it was a lead and silver mining location in pre-Roman times; Jones, *Cities*, 88 observes that the name means 'stockade' and that Galen refers to it as Ergasteria 'the works', i.e. a mining camp. E. Pernicke's investigations between 1975-83, reported in 'Archäometallurgische Untersuchungen in Nordwestanatolien', *Jahrbuch des römisch-germanischen Zentralmuseums Mainz* 31 (1984) 533-99 indicated mining from Hellenistic through Byzantine times at Pericharaxis (540-49, 572) with extensive Roman remains north of Balia Madén, a clearly visible road (548) and Roman bridge (572). In 'Erzlagertstätten in der Ägäis und ihre Ausbeutung im Altertum', *Jahrbuch des römisch-germanischen Zentralmuseums Mainz* 34 (1987) 649, Pernicke explicitly identifies Pericharaxis as a Hellenistic and Roman mining site.

⁴⁰Not in Strabo; the brief article by Büchner, 'Ergasteria', *PaulyW* 6.430 locates it on the road from Kyzikos to Poimaneion; Cramer, *Asia Minor*, 58 identifies it with Argiza, 30 miles south of Poimaneion; see also Jones, *Cities*, 88, 90. The name implies a mining camp.

⁴¹Not in Strabo; see Hirschfeld, *PaulyW* 2. 721; Jones, *Cities*, 86, 88, 90 who places it in the upper basin of the Aesepus River; the mining site continued through Byzantine times.

⁴²See Strabo 12.3.23; 13.1.45; *PaulyW* 2.801 by Hirschfeld, 'Argyria', *PaulyW* 2. 801 describes it as a town near silver mines; See also Magie, *Roman Rule*, 44, 804; Pernicka, 'Archäometallurgische Untersuchungen', 538 locates Argyria 3 kilometres southwest of Kalkim and observes that there were extensive Hellenistic through Byzantine shards.

⁴³See Strabo 13.1.45, 52; the discussion by E. Kirsten, 'Polichne', *PaulyW* 21.2. 1374-76 notes multiple settlements in the upper Aisepos Valley near mining sites that flourished 'in Roman times'. Cook, *Troad*, 314 does not identify the site; Jones, *Cities*, 6, 88, 90 locates it in the upper basin of Aesepus shared between Polichne and Argiza.

⁴⁴See Strabo 13.1.45, 51, 52; see also W. Ruge, 'Palaiscepsis', *PaulyW* 18.1. 2467-71 and W. Leaf, 'Some Problems of the Troad', *Annual of the British School at Athens* 21 (1914-16) 16-18 who provide extensive discussions of the debate over location of this ancient city; that it was unoccupied in

Scepsis	Kurşunlu Tepe, E of Baymarıç	Small Roman town ⁴⁵
Cebren/Kebren	Ak Punár-Kjöi	Small Roman town ⁴⁶
Scamandros	Akköy	Small Roman town ⁴⁷
Alexandria Troas	Dalyan	Major Roman city ⁴⁸

Roman times is clear from Magie, *Roman Rule*, 904 and Cook, *Troad*, 300-304.

⁴⁵See Strabo 13.1.33, 43, 51-54; 14.4.6. Magie, *Roman Rule*, 69 describes this as a site from which the inhabitants of Alexandria Troas were drawn at the time of its founding by Antigonos, but 82-83 indicates it remained occupied in a commanding position over the Scamander River; Lysimachus allowed people of Scepsis to return from Troas; it continued after this to dominate the upper basin of Scamander; on 92 Magie describes how Scepsis was strengthened around 287 B.C.E.; on 234 Scepsis is listed among the cities not forced to submit to Mithradates in his invasion around 129 B.C.E. Cook, *Troad*, 346 refers to a Claudian inscription found at Scepsis, which indicates it was settled at the time of Paul's journeys. See also Jones, *Cities*, 35-36, 41, 85-86, 88; an assessment of the historical significance of Scepsis is provided by W. Leaf, 'Scepsis in the Troad', pp. 267-81 in W.H. Buckler and W.M. Calder (eds.), *Anatolian Studies Presented to Sir William Mitchell Ramsay* (Manchester: Manchester University Press, 1923).

⁴⁶See Strabo 13.1.33, 47, 52; Büchner, 'Kebren', *PaulyW* 11.105-06 locates it on the left side of the Scamander. This large classical site was evacuated forcibly by Antigonos to create Troas, and the site was unoccupied for several centuries, to be restored, according to Cook, *Troad*, 341 in Roman imperial times. See also Magie, *Roman Rule*, 804 and Jones, *Cities*, 35-36, 41. An early investigation of the mines near Cebren is provided by Leaf, 'Some Problems of the Troad', 19-28.

⁴⁷No reference in *PaulyW* or Strabo; Cook, *Troad*, 295-96, 354-56 concludes that Akköy is the most likely location of this town that existed from the Roman through the Byzantine periods. See also Jones, *Cities*, 35, 86, 90.

⁴⁸See Strabo 2.5.40; 10.3.20; 13.1.2, 26, 33, 47, 51; Cook, *Troad*, 198-204; Jones, *Cities*, 41-42, 47-48, 53, 85, 88, 92. The articles in E. Schwertheim and H. Wiegantz (eds.), *Neue Forschungen zu Neandria und Alexandria Troas*, Asia Minor Studien 11 (Bonn: Habelt, 1994) describe artistic artifacts found while excavating nearby Neandria, but nothing relevant to the road network. E.M. Yamauchi's article, 'Troas', *Anchor Bible Dictionary* 6 (1992) 666-67 confirms the importance of Troas but contains nothing on the road system.

ALTERNATE SEACOAST ROUTE
FROM ACHYRAUS TO TROAS

Aureliane	S of Havran	Uncertain ⁴⁹
Thebe	Near Büyükdere	Uncertain ⁵⁰
Adramyttium	Near Büyükdere	Roman city ⁵¹
Antandrus	Near Altinoluk	Small Roman town ⁵²
Gargara	Koca Kaya	Small Roman town ⁵³
Assos	E of Behramkale	Roman city ⁵⁴

⁴⁹See Büchchner, 'Aureliane', *PaulyW* 1.2427 for the location on 'Euenos, close to the gulf'; it may have been unoccupied in the Roman period.

⁵⁰See Strabo 13.1.7, 8, 13, 48, 61, 62, 65; 13.3.1; Jones, *Cities*, 34-35, 85: 'former city' incorporated into *conventus* of Adramyttium.

⁵¹See Strabo 13.1.6, 49, 51, 68; Hirschfeld, 'Adramytteion', *PaulW* 1.404; Jones, *Cities*, 33-34, 44, 47, 61, 69, 85: one of the largest *Conventus* in Asia comprising Troad and Mysia; 89-90; Mitchell, *Anatolia*, 1.33 notes that Jewish temple taxes gathered there were confiscated around 62 B.C.E.

⁵²See Strabo 13.1.51; Hirschfeld, 'Antandros', *PaulyW* 1. 2346 describes an ancient city 205 meters above the sea that was occupied until Byzantine times; also article in *PaulyW* Sup 8. Cook, *Troad*, 267-71; Jones, *Cities*, 38, 85: one of three cities on south coast surviving in Roman period; 90; for a description of the mines found near Antandrus, see Pernicka, 'Archäometallurgische Untersuchungen', 535-37, 549.

⁵³See Strabo 13.1.5, 51, 56, 58; *PaulyW* 7.757-58 refers to this as one of the Peaks of Mt. Ida, with a confusing references to 'ruins'. Cook, *Troad*, 255-61; Jones, *Cities*, 35, 85, 90: one of three cities on south coast surviving in Roman period. B. Umar reports that 'no scientific investigations have been carried out on the sites either of the old or of the new Gargara: *Troas*, trans. A. Mill, *Kültür Kitapları Serisi 7* (Akbank'in bir kültür hizmeti, 1983) 46.

⁵⁴See Strabo 13.1.2, 51, 57, 66; Jones, *Troad*, 35, 85, 90: one of three cities on south coast surviving in Roman period; Mitchell, *Anatolia*, 1.256 refers to poll taxes reduced by Romans. Ü. Serdaroglu describes the classical site being excavated at Assos in '1981 Yılı Assos Calismalari', *Kazi Sunoclari Toplantisi* 4 (1982) 181-82; 'Assos 1990 Yili Kazi ve Onar im Calismalari', *Kazi Sunoclari Toplantisi* 13.2 (1991) 43-52; 'Zur Geschichte der Stadt Assos und ihrer Ausgrabungen', 1-6 in Ü. Serdaroglu, R. Stupperich *et al. Ausgrabungen in Assos 1991*, Asia Minor Studien (Bonn: Habelt, 1993) describes Hellenistic, Roman and Byzantine evidence showing there was an economic boom in the Roman imperial period (3); R. Stupperich, 'Vorbericht über die Grabung in der Westtor-Nekropole von Assos im Sommer 1989', 7-22 in *Ausgrabungen in Assos 1991*, describes the paved street found within the city (9-13) dating from a period prior to the Roman conquest.

Polymedion	S of Bademli, Asarlik	Uncertain ⁵⁵
Hamaxitus & Smintheum	Gök tepé	Uncertain ⁵⁶
Tragasae	Tuzla	Roman industrial site ⁵⁷

Since many of these sites have not been excavated, there is a need to apply contemporary archaeological methods to confirm whether they were in fact occupied in the first century C.E. What seems clear from the evidence of previous researchers is that a sufficient number of Roman towns and cities were present to render likely the presence of a road network along the route that Acts suggests Paul traversed on his way to Troas.

IV. Additional Observations about the Transportation System

Several significant observations developed from the research done thus far lend plausibility to the presence of what is noted above as the main, overland route from Achyraus to Troas. There is extensive evidence in the upper Scamander valley and the mountains in its eastern headwaters of mining operations during the Roman period, with large cemeteries filled with slave graves.⁵⁸ It appears likely that the Romans were continuing major mining operations there that had been initiated in Hellenistic times, probably with slave and convict

⁵⁵See Strabo 13.1.51; Cook, *Troad*, 238-39 provides a description of this Hellenistic site.

⁵⁶See Strabo 13.1.47, 48, 51; Büchner, 'Hamixtus', *PaulyW* 7. 2296-97 indicates the population was relocated to Troas; Cook, *Troad*, 231-35 makes no reference to an occupation of Hamixtus in Roman times, but 228-29 refers to a large Roman building at Smintheum; Jones, *Cities*, 35, 41 confirms that the population of Hamixtus had been moved to Troas.

⁵⁷W. Ruge, 'Tragasae', *PaulyW* 2.6 1893 makes no reference to Roman settlement; Cook, *Troad*, 222-26 describes some Roman buildings and the famous salt pan.

⁵⁸See W. Ruge, 'Pericharaxis', in *PaulyW* 19.710; Magie, *Roman Rule*, 44, 803-804; Leaf described the mines near Cebren in 'Some Problems of the Troad', 19-28.

labor, which would have required a well developed road accommodating extensive wagon traffic. The fragmentary milestone found in the Scamander valley on a line between Troas and Scepsis confirms this likelihood.⁵⁹ The mines further to the east, near Balia-Madén, investigated more recently by Ernst Pernicke and his colleagues,⁶⁰ could well have been connected by an overland route between the Scamander Valley and the Macestus Valley. Since we now know that these mines were being operated during the first century, a road network linking them directly with Troas, the largest city in the region, is sufficiently plausible to warrant investigation.

Secondly, it appears likely on the basis of the uncertain status of Roman settlement in several of the sites on the seacoast route from Achyraus to Troas that the forcible resettlement of population to create and strengthen Troas may have had a more lasting effect on seacoast towns than on the upland settlements. If Jones is right that only three of these coastal centers remained occupied during Roman times,⁶¹ this may have weakened the appeal and usefulness of the seacoast road system to a traveler like Paul, making his choice of the overland route more likely. Moreover, an examination of the barrier of Mount Ida, the range called Kaz Dağı on the Turkish maps to the south and east of Troas, shows why the main lines of communication had to go East-West, and why the coastal road marked on the Calder & Bean map may have been even rougher and less developed than the upland route implied in the wording of Acts 16:8. The mountain range reaches straight to the edge of the sea for a substantial portion of the south coast of the Troad.⁶² When Xerxes moved his gigantic army through this region in 380 B.C.E., he followed a route that climbed up to

⁵⁹G.E. Bean's discovery is reported in the section he contributed to J.M. Cook, *The Troad: An Archaeological and Topographical Study* (Oxford: Clarendon, 1973) 396-97; see also Hemer, 'Alexandria Troas', 101-102.

⁶⁰See note 39 above.

⁶¹Jones, *Cities*, 85: only Antandrus, Gargara, and Assus remained occupied during Augustus' era, issuing coins.

⁶²See Leaf's vivid description in 'Military Geography', 407. However Cook, *Troad*, 392 notes that the seashore route is 'much easier and involves a climb of only 300-400 m' as compared with 1,250 meters on the upland route—which he did not explore.

the Scamander Valley from the Plain of Thebe (near present day Edremit), 'keeping Mount Ida on his left'.⁶³ Whether this was the easier or safer route remains unclear, but it appears to have been passable for wagons,⁶⁴ even though it does not show up on any map that is currently available. It is possible that coastal travel from Adramyttium to Troas would mostly have gone by ship rather than road, which means that the more heavily traveled and safer route might still have been *via* the Scamander Valley in Paul's time. It also appears that the Scamander route was considerably shorter, though this can only be determined by precise measurements on the ground.

A third consideration concerns the site of Troas itself, more than 1000 acres in size, with a very large population.⁶⁵ It had an artificial harbor to accommodate and control the lines of communication in and out of the Bosphorus, and was so strategically important as a transportation and administrative center that it was seriously considered by Julius Caesar as a potential site for the capital of the empire. The site has been thoroughly looted since the sixteenth century for building projects in Istanbul and elsewhere so that the extensive fortifications observed by Jean-Baptiste Lechevalier on the basis

⁶³Leaf, 'Military Geography', 415; see Herodotus, *Persian Wars*, Book 7.42-43. Cook, *Troad*, 392 doubts this report on practical grounds, but he does not consider the possible military necessity of finding a route that would not be detected or interrupted by Greek sea power.

⁶⁴Leaf reported on his expedition in 1911, 'Notes on the Troad', *Geographical Journal* 40 (1912) which followed the Zeitünlü Chai river northward from Edremit, making a 'natural staircase by which passes the shortest road from Edremit to the Scamander valley. It is on the upper part of this shoulder, where the path runs nearly due westward towards Ida, that the curious cutting called the Porta lies. . . two cuttings, about 200 yards distant. . . the date of their construction is unknown' (39). He feels certain that this was Xerxes' route: 'It would be quite in keeping with the careful preparations which Xerxes made for the march of his army that this rocky ridge should have been pierced for a smooth and level road to facilitate his passage' (40).

⁶⁵Strabo 13.593 reports that the city walls were five miles in circumference. Burdick refers to estimates ranging from 30,000 to 100,000 in 'With Paul in the Troad', 50; the higher figure was calculated by W. Leaf in *Strabo on the Troad* (Cambridge: Cambridge University Press, 1923) 236 on the basis of 100 persons per acre. Cook, *Troad*, 383 calculates 30-40,000 on the basis of tribute money paid, which seems quite low for a site of this size.

of his travels in 1795-96 are mostly no longer visible.⁶⁶ Since the site has never been excavated, it is difficult to grasp the extensive infrastructure represented by these towers commanding the access roads to Troas. We noted above the study by Colin J. Hemer, who observes that 'Troas was the place where two highly important, but functionally different, routes from the East to Rome actually crossed. The swiftest, all-season landroute used by the imperial post included the short sea-crossing to Neapolis'.⁶⁷ Hemer refers to large Roman building projects in Troas aimed at improving rapid communications between Rome and the east. He also concurs in the 'likelihood of a direct Roman route at least from Troas to Scepsis...corroborated by the recent discovery of a fragmentary milestone in the Scamander valley in line between the two cities. The numeral XV is preserved on it: the stone is eighteen miles from Troas and over thirteen from Scepsis, but certainly not *in situ*.'⁶⁸ This correlates with the map of Troas drawn by Lechevalier when the walls were still standing,⁶⁹ which depicts two roads leading from the city, one on the north and the other on the east; the latter branched outside the city walls into southerly and easterly roads.⁷⁰ The easterly road 'between Kemalli Köy and Alexandria Troas which Schliemann reported as being particularly well preserved' could no longer be located by J. M. Cook and his colleagues in the late 1960's,⁷¹ but their goal was not explicitly to investigate the transportation system.

⁶⁶In *Beschreibung der Ebene von Troja mit einer Charte von dieser Landschaft*, trans. from Royal Society in Edinburg by A. Dalzel (Leipzig: Weidmann, 1792) 14, Lechevalier describes the eight-feet thick walls and towers made with dressed stones. See also *Voyage de la Troade, fait dans les années 1785 et 1786*, 3 vols. (Paris: Dentu, 1802, third revised and expanded edition) I.236-47.

⁶⁷C.J. Hemer, 'Alexandria Troas', *TynB* 26 (1975) 91-92; see also Brändl, 'Troas', 1604-06 which discusses the crucial location of Troas for the Roman postal service between the East and Rome.

⁶⁸*Ibid.*, 101-102.

⁶⁹*Beschreibung*, foldout map at the end of the volume.

⁷⁰C. Texier confirms the presence of a principal entrance on the east side of Troas in *Asie Mineure. Description Géographique, historique et archéologique des provinces et des villes de la chersonnèse d'asia* (Paris: Firmin-Didot, 1882) 196, but he did not explore this road toward the east.

⁷¹Cook, *Troad*, 391.

Whether segments of this road remain extant today needs to be investigated, because it seems highly likely that a Roman transportation center of this importance would be linked with other centers of economic and military significance in the province and beyond.

Finally, it should be recalled that earlier archaeological explorers who traversed the route from Dorylaeum to Troas by foot or horseback saw evidence of ancient roadways. In the 1890's, M. Arthur R. Munro and his colleagues explored the Troad and discovered a route that was 'almost a straight line from Cotyaium to Alexandria Troas', with part of this route based on ancient itineraries that list 'Ilium, Troas, Scamandrus, Polichna, Poemaneunum'.⁷² In the period just before the First World War, Walter Leaf also traveled over the roads in the Scamander valley and the paths to the Aesepos road system along the approximate route suggested here.⁷³ There is also evidence of Roman bridges along several other parts of this route from Cotiaieum to Troas, which imply the existence of access roads; whether they were in use during Paul's time needs to be investigated.⁷⁴

⁷²Munro and Anthony, 'Explorations in Mysia', *The Geography Journal* 9 (1897) 256-57; see also J.A.R. Munro, 'Explorations in Mysia', *Supplementary Papers of the Royal Geographical Society* 3 (1893) 20-21; *idem*, 'Gleanings from Mysia', *Journal of Hellenic Studies* 21 (1901) 229-37. Cook, *Troad*, 355 refers to the 'continuous geographical sequence of a bishopric' in a sixth-century list that ends with Scepsis.

⁷³See W. Leaf, 'The Military Geography of the Troad', *Geographical Journal* 47 (1916) 401-16; *idem*, 'Scepsis in the Troad', 267-81. According to Cook, *Troad*, 291 Leaf is the only explorer that has ever covered this route.

⁷⁴E. Akurgal, *Ancient Civilizations and Ruins of Turkey from Prehistoric Times until the End of the Roman Empire*, trans. J. Whybrow and M. Emre (Istanbul: Haset Kitabevi, 1973) 270 refers to Azanoi having 'two very well-preserved bridges over the Rhyndakos, still in use today...built in Roman times.' These and additional bridges at Azanoi are documented in note 29 above. Munro and Anthony, 'Explorations in Mysia', 276 reported seeing in 1894 the remnants of two Roman bridges in the eastern valley' near Balya, which would be on the proposed route through Pericharaxis, to the west of Achyraus, present day Balikesir. The modern 'Garlic Bridge' over the Scamander River five kilometers north of Ezine supplants a bridge with Roman arches noted by 18th-century explorers which probably was in use during the Roman period, according to Cook, *Troad*, 272-74, 393. In 'Report on Survey in the Troad', *Anatolian Studies* 19 (1969)

V. Conclusion

A survey similar to that undertaken by S. Frederick Starr and his colleagues in 1961 could be employed to determine the route of these roadways, if they exist. They traced the route of the Persian Royal Road on the basis of evidence in Herodotus's description in the history of the Persian Wars.⁷⁵ They discovered a number of sections of the Royal Road and also traced some 400 miles of Roman highway and pinpointed the locations of nine previously undiscovered or misidentified Roman cities. Their route was to the east of the central Galatian cities of Ankara, Gordium, Pessinus and Dorylaeum, the same cities that Paul probably visited prior to the journey west to Troas. In a significant subsequent article, David H. French applied similar methods to discover a stretch of Roman road from Caesarea to Tavium not described in any ancient literary source.⁷⁶ This confirms the feasibility of exploring the terrain referred to in broad terms in the Acts account even though no exact description of such an east-west route has been located in ancient writings or maps.⁷⁷ Strabo's *Geography* discusses the location of many of the sites to be investigated from Dorylaeum to Troas, but not the road system that may have connected

20, J.M. Cook and G.E. Bean wrote: 'The Roman bridge in the Tuzla plain has been measured', which confirms the presence of the coastal highway south of Troas.

⁷⁵F. Starr, 'Mapping Ancient Roads in Anatolia', *Archaeology* 16 (1963) 162-69.

⁷⁶D.H. French, 'A Study of Roman Roads in Anatolia: Principles and Methods', *Anatolian Studies* 24 (1974) 143-49.

⁷⁷For example the *Itineraria Romana. Römische Reisewege an der Hand der Tabula Peutingeriana*, edited by K. Miller (Rome: Bretschneider, 1964) reflects the road system in the fourth century C.E. conditions as noted by the cartographer Castorius. The discussion in chapter VIII 'Die Pontusprovinzen' shows on 628 that the Peutinger maps have no direct route between Dorylaeum and Troas, with the only possible routes going either through Bithynia or through the central part of the province of Asia. The map on 631 shows Troas in the bottom left, with a range of mountains behind it, and a coastal road going south through Sminthium, Assos, Gargara, etc. but no overland route eastward out of the city. The detailed map of NW Anatolia on 694 also shows no route from Troas east to the Menander Valley or to the cities further east of that point. It shows the coastal highway as the only route into Troas.

them.⁷⁸ The most detailed map that I have been able to find in one of the cartography collections in Chicago, the *Deutsche Heereskarte* published from 1922-37 with corrections until 1942, suggests a number of promising areas to investigate.⁷⁹ An investigation that employs advanced archaeological methods along with satellite photographic and navigational systems currently available might be able to locate and identify such roads with a higher level of efficiency than was possible for earlier researchers.⁸⁰

By clarifying the status of the Roman road network in a portion of Anatolia that has remained relatively untouched by recent investigations of the transportation system, this investigation would offer a resource that could be used in the creation of 'The Classical Map of Greece and Rome' to be published in 1999 by Princeton University Press under the sponsorship of the American Philological Association. It also could lend precision to the next generation of maps for biblical

⁷⁸Strabo, *Geography* 13.1 deals with the Troad and was analyzed in detail by W. Leaf, 'Notes on the Text of Strabo XIII.1', *Journal of Hellenic Studies* 37 (1917) 19-30; his translation is *Strabo on the Troad* (Cambridge: Cambridge University Press, 1923). As noted in section II above, Strabo mentions Adramyttium, Alexandria Troas, Ancyra in Mysia, Antandrus, Argyria, Assos, Azanoi, Cadi, Cebren, Cotiaeum, Dorylaeum, Gargara, Hamixtus, Polichna, Palaiscepsis, Polymedion, Scepsis and Thebe. Not mentioned are Achyraus, Alia, Aureliane, Carseae, Didymoteiche, Ergasteria, Hadrianûtherae, Pericharaxis, Scamandros, Synaos, Tiberiopolis and Tragasaë.

⁷⁹The section called 'Edremit' in this set of German military maps on a 1:200,000 scale shows clearly marked tracks over the mountains from the location of Troas to the Scamander river valley; there is a clearly marked straight road along the valley just to the South of the newer highway to Bayramiç. There are also clearly marked tracks across the mountains to the west where the ancient mining centers were. In the section marked 'Balikesir' there are small tracks leading from the Simav River system (= Macestus River) West toward Balikesir and beyond.

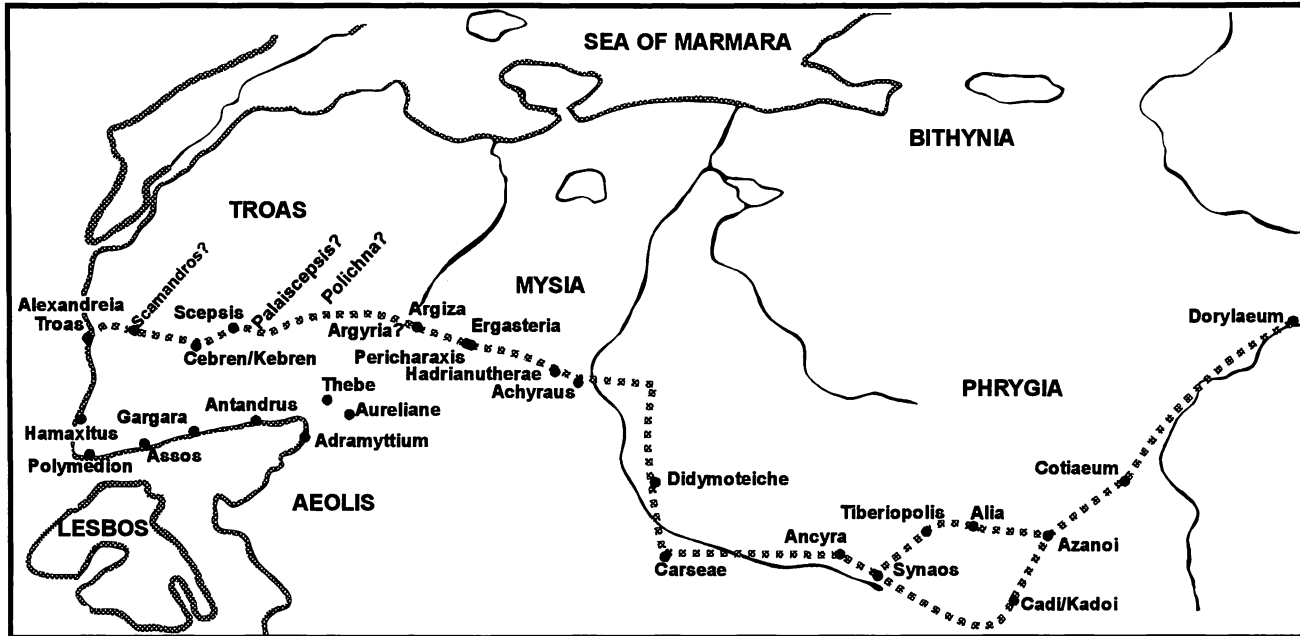
⁸⁰French provides an account of traditional methods, starting with ancient sources, narrowing the area to a narrow band, then searching the area and questioning locals, and finally re-examining the ancient sources in the light of new data, in 'A Study of Roman Roads in Anatolia', 143-49. For suggestions on the use of aerial photography before the availability of satellite images, see R. Chevallier, *Roman Roads*, trans. N.H. Field (London: Batsford, 1976) 106-27.

atlases and other reference works. Whatever the results of the proposed investigation, it could have an important impact on our understanding of Paul's journeys and on the social circumstances of early Christianity in northwestern Anatolia.

(A map of the proposed route from Dorylaeum to Troas appears on the following page.)

Proposed Route from Dorylaeum to Troas: Dotted line indicates the route to be investigated.

based on W. M. Calder & G. E. Bean, *A Classical Map of Asia Minor* (London: British Institute of Archaeology at Ankara, 1958)



Christian Computer Art 1997