

## **Roads and Routes in Northwestern and Adjoining Parts of Central Asia Minor: From the Romans to Byzantium, with Some Remarks on their Fate during the Ottoman Period up to the 17<sup>th</sup> Century**

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The Roman Roads in Asia Minor in general are well-known. This holds true for the overall network of long-distance roads as well as for the technical aspects of their construction and appearance<sup>1</sup>. The increase in our knowledge on the Roman roads of Anatolia during the last decades in many respects owes much to the work of the late David French, who tirelessly followed their traces, recorded techniques and measurements, collected milestones and road inscriptions<sup>2</sup>, and put forward a set of definitions for the various types of roads as well as a useful, if schematic, theoretical approach to their development from the pre-Roman to the post-Byzantine period<sup>3</sup>. He has now published the milestones of the different regions of Asia Minor in seven online volumes<sup>4</sup>.

For the purpose of this paper, I have chosen five aspects of the development of roads from Antiquity to the Ottoman period (until about the 17<sup>th</sup> century), namely:

- Change in design and appearance of roads
- Change of some main routes
- Maintenance of roads
- The arrival of the Seljuk Turks in Asia Minor and its impact on the road system in areas remaining under Byzantine rule
- Continuity and change of routes and roads in the Ottoman period up to the 17<sup>th</sup> century

### **1. Change in design and appearance of roads**

The long-distance roads of Anatolia, as well as many regional and secondary roads, were, as in most parts of the Roman Empire, generally designed for vehicular traffic. Not only numerous sources, but also ruts in preserved stretches of the roads testify to this fact. The importance of vehicular traffic in Asia Minor's provincial areas as early as the 1<sup>st</sup> century AD is highlighted by

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<sup>1</sup> See Schneider 1982 (general introduction to problems, methods, and results); Chevallier 1998 (detailed description of various aspects, mainly on Italy and Gaul); Pekáry 1968 (especially on juridical and administrative questions); for building techniques in Anatolia see French 1980, 704; French 1981, 19-22; for different building techniques see Schneider 1982, 31-35; good overview also in Adak 2019.

<sup>2</sup> French's scattered preliminary publications are listed in <http://biaa.ac.uk/research/item/name/survey-of-roman-roads-and-milestones> (last access 18.5.2020).

<sup>3</sup> French 1974, 144; French 1980, 699-705; French 1993, 448-452.

<sup>4</sup> See <http://biaa.ac.uk/publications/item/name/electronic-monographs> (last access 18.5.2020).

inscriptions and archaeological observations<sup>5</sup>. There were, however, exceptions to this rule, notably in mountainous regions such as Lycia and parts of Pisidia<sup>6</sup>. Outside the mountain areas, main roads for vehicular traffic were wide enough (usually more than six meters) for two wagons to pass easily, and in Anatolia they were mostly paved by the end of the Roman imperial period. French has given three different definitions for highways (designed for vehicular traffic) and roadways (designed for non-vehicular traffic): highway more than and roadway less than 2.5 m wide<sup>7</sup>; more/less than 3.25 m<sup>8</sup>; 6.50 m (highway), 3.25 m (roadway)<sup>9</sup>.

Roman roads were built mainly on behalf of the State, for rapid military movement, to serve administrative purposes and for the so-called *cursus publicus*, an institution run by the state that provided means of transport along certain main roads for a limited circle of imperial couriers, high-ranking military leaders, civil servants, and official delegations as well as, perhaps only from the fourth to the sixth century, for certain transports of goods for the army or the imperial court<sup>10</sup>. These roads were not primarily built for merchants or private travellers, although these too had the right to use them freely<sup>11</sup>. The state was responsible for maintaining and organizing the public roads, but in most of the cases, especially in the provinces, the *possessors* (proprietors of land along the roads) and, sometimes, the communities had to pay the maintenance costs<sup>12</sup>. We know from milestones and road inscriptions that in spite of these efforts, already in the Roman imperial period, roads often collapsed or were in bad condition because of their age and therefore had to be repaired<sup>13</sup>. Nevertheless, in the 4<sup>th</sup> century, it was not only possible but quite usual to travel across Asia Minor in carriages. For instance Julian, who had invited the philosopher Eustathios to Constantinople, offered him a permit to use a carriage of the *cursus publicus* with two additional pack horses; it seems, however, that Eustathios did not make use of the emperor's permit for travelling to the capital; for his return, the permit arrived too late, a fact which the philosopher appreciated very much; he calmly returned to Cappadocia on foot<sup>14</sup>. Well-known is the fate of Kimon, son of the rhetor Libanios, who fell from his *apēnē* (a sort of wagon) on his way from Constantinople to Antioch, an accident from which he later died<sup>15</sup>. Gregory of Nyssa travelled to Jerusalem on a

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<sup>5</sup> See e.g. the inscription published by Mitchell 1976; for ruts in a Roman road see fig. 1.

<sup>6</sup> French 1981, 21.

<sup>7</sup> French 1974, 144.

<sup>8</sup> French 1980, 703.

<sup>9</sup> French 1993, 446.

<sup>10</sup> Kolb 2000, 49-226; for transport of goods 66-70, 96-98.

<sup>11</sup> Pekáry 1968, 1-7 (mainly after Digesta 43, 8, 2 §21-22 [Corpus Iuris Civilis I, recognovit P. Krueger – Th. Mommsen, editio stereotypa sexta, Berlin 1893, 684]).

<sup>12</sup> Pekáry 1968, 93-171, *passim*; Rathmann 2003, 136-142.

<sup>13</sup> French 1980, 715 no. 5: τὴν ὁδὸν ... κατεφθαρμένην τῇ ἀρχαιότητι (AD 57/58); French 2013, No. 1: *vias a novo munierunt* (AD 78); French 2013, No. 64: *viam vetustate corruptam restituit* (AD 115/16); French 2012, No. 166: *Viam Tauri vetustate conlapsam ... cum pontibus institutis restituit* (AD 216/17); French 2012, No. 165: *[viam] Tauri montis frequentissimis inluvionibus [dirutam ac cae]sis rupibus ac dilat[at]is itineri]bus cum pontibus [institutis rest]itutam perfece[runt]* (AD 217/18).

<sup>14</sup> Julien, Lettres 34-36 (Bidez 62-64 and 37-38).

<sup>15</sup> Libanios, Autobiography, 279-280.

carriage of the *cursus publicus* in an official mission<sup>16</sup>. John Chrysostomus when summoned from Antioch to become bishop of Constantinople, travelled all the way through Asia Minor on a *redion* or *raeda* of the *cursus publicus* (that is an open, light, four-wheeled carriage)<sup>17</sup>.

In Late Antiquity or the early Byzantine period (roughly until 650), there are more observations and complaints about bad road conditions in various genres of sources. In 362 the emperor Julian used a carriage (*vehiculum*)<sup>18</sup> to travel mostly along the so-called Pilgrim's road from Constantinople to Antioch. Julian also described a stretch of the road from Antioch to Beroia/Ḥalab, which went partly on boggy, partly on mountainous ground. Everywhere it was very rough, there were stones lying in the bog as if placed intentionally, but without any proper technique. By contrasting this example with the better, Julian implies that in general road conditions and construction techniques were better in other cities<sup>19</sup>. Procopius' panegyric *On Buildings* is especially precious for its information on roads in the age of Justinian<sup>20</sup>. Procopius mentions roads or bridges whose condition constituted a real or even mortal danger for travellers. Justinian and Theodora paved a stretch of a road from Bithynia to Phrygia, which constituted a mortal danger to men and animals after heavy rainfalls and snow thaw because of the boggy ground<sup>21</sup>. Other sections were narrowed or washed away by erosion. Rivers had to be forded in the absence of bridges. To improve the situation for the passengers the emperor rebuilt and paved these stretches, widening the road, making new bridges and sometimes cutting the rock away. An entirely new road over the mountains with only two new bridges over the Drakōn/Yalakdere river in Bithynia replaced more than twenty dangerous crossings of the old road in the valley<sup>22</sup>. The emperor's efforts also included a new bridge over the Pharnutis/Karadere river west of Nikaia<sup>23</sup>, and above all the famous bridge over the Sangarios/Sakarya river<sup>24</sup>, in place of a dangerous pontoon, which Theophanēs described as a wooden bridge<sup>25</sup>. A bridge over the Siberis/Kirmir river near Sykeōn replaced a ford, where many people perished in sudden floods<sup>26</sup>. Procopius noted that Justinian made the roads near Rēgion west of Constantinople passable for wagons<sup>27</sup>, as well as those between Helenopolis/Hersek and Nikaia/İzmir<sup>28</sup>, and in the vicinity of Antioch<sup>29</sup>. His emphasis in these passages suggests that this had already become unusual. Given the immense network of Roman roads in and

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<sup>16</sup> Gregorii Nysseni Epistulae 2, 12 (Pasquali 17).

<sup>17</sup> Palladios, Dialogue 5 (ed. A.-M. Malingrey – P. Leclerc I, 114).

<sup>18</sup> Ammianus Marcellinus 22, 9, 13.

<sup>19</sup> Julien, Lettres 398 (Bidez 180); French 1993, 454.

<sup>20</sup> French 1993, 450, 452-454; Belke 2000, 118-122; Belke 2020, 265-266, 981, 1047.

<sup>21</sup> Prokopios, De aed. V 3, 12-15.

<sup>22</sup> Prokopios, De aed. V 2, 12-14.

<sup>23</sup> Prokopios, De aed. V 3, 4-6.

<sup>24</sup> Prokopios, De aed. V 3, 8-11.

<sup>25</sup> Theophanēs 234 (a. m. 6052).

<sup>26</sup> Prokopios, De aed. V 4, 1-4.

<sup>27</sup> Prokopios, De aed. IV 8, 4-9.

<sup>28</sup> Prokopios, De aed. V 2, 12-14.

<sup>29</sup> Prokopios, De aed. V 5, 1-3.

around Anatolia, Justinian's efforts were limited and the repaired stretches were no longer than 15-20 kilometres. So overall it still appears that the road network had deteriorated<sup>30</sup>.

Archaeologically, things look a bit different. Several roads, usually laid on or beside earlier road surfaces, have reasonably been dated to the 5<sup>th</sup> or 6<sup>th</sup> century. They share some common features. Surface stones tended to be larger, and the surface itself smoother than in the Roman period. The roads, however, were narrower, averaging only about 3.5 m; steps were added, to steep stretches of these "roadways", which facilitated the sure footing of pack animals, but impeded vehicular traffic<sup>31</sup>. To French's three examples, add the descent called *Kırkmerdiven* ('Forty Steps') towards the lake on the Helenopolis-Nikaia road, which was stepped and less than 3 m. wide. It was later than Justinian's wagon road and not designed for vehicular traffic<sup>32</sup>. The difference can be seen in the Döşeme Boğazi in Pamphylia (one of French's examples), where the broad, rough surface of the Roman *Via Sebaste* with its ruts from vehicular traffic (fig. 1) is contrasted with the narrower but smoother surface of the Byzantine (here in Cilicia: fig. 2) and/or (here more probably) Ottoman fabric (fig. 3). These narrower, smoother Byzantine roads were repeatedly repaired more or less in this style during the later Byzantine and Ottoman periods.

Many roads were obviously neglected in Late Antiquity, and if rebuilt, not really suited for vehicular traffic, although rustic two-wheeled oxcarts could jolt over these stepped roads too. These simple oxcarts, usually equipped with disc wheels, survived in rural Anatolia nearly unchanged until the very recent past. The Byzantines seem to have developed a more effective way to fix the axle to the composite disc-wheel, an innovation which the Turks did not adopt<sup>33</sup>. The use of wagons and carts decreased gradually in favour of pack animals. In the 6<sup>th</sup> century wagon traffic was practically confined to two-wheeled oxcarts used for short-distance transport of raw materials and goods from the producers to the next market place or harbour, and to military baggage trains. Did wagons fall out of common use because the roads were not fit for them anymore, or could roads become narrow and stepped because wagons had practically disappeared? Richard Bulliet has concluded that in the Near East the phenomena were mutually interrelated<sup>34</sup>, but his conclusions cannot be extrapolated directly to Anatolia, because wagons were here replaced by pack donkeys, mules and, to some extent, horses, not, by the more competitive camels. According to Diocletian's price edict, a camel could carry half the weight of an oxcart's load<sup>35</sup>. A medieval mule or packhorse could carry ca. 85 kg, a donkey less than 60 kg, including ca. 16-19 kg for the pack saddle<sup>36</sup>. Higher estimates have also been made for these loads. Vehicular traffic of course had been known in Anatolia from earlier periods, but the intensive use of different types of carts, wagons, and carriages was introduced to Asia Minor by the Romans, and began to disappear when

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<sup>30</sup> Loungēs 1994-1995, 37-42; Haldon 2006a, 136-38; Haldon 2012, 118-120.

<sup>31</sup> French 1993, 446-448.

<sup>32</sup> For a modern description see Lefort 1995, 214.

<sup>33</sup> Bryer 2002, 112.

<sup>34</sup> Bulliet 1975, 16-27.

<sup>35</sup> Cf. Bulliet 1975, 20-22: ca. 400 and 200 kg.

<sup>36</sup> Haldon 2006a, 146.

the Roman-Italian cultural influence and technological skills gradually faded away<sup>37</sup>. A combination of the decreasing need for vehicle roads, the reduced economic resources of the state, and cultural change would have led to road construction on a smaller scale and their increasing neglect.

## 2. Change of some main routes in Asia Minor<sup>38</sup>

After the Arab incursions into Asia Minor began in mid-seventh century, the military, political and economic situation of the eastern parts of the Byzantine empire changed drastically, as east and south-east Anatolia fell temporarily to the invaders. Insecurity prevailed in the rest of Asia Minor<sup>39</sup>. Many long-distance roads from Constantinople to the east were simply cut off at the borders (roughly along the ranges of the Taurus and Antitaurus mountains) or were used only for diplomatic exchanges and a minimal trade in commodities. Inside Anatolia the main lines of communication were maintained, but traffic on some traditional roads faded in favour of others. While the so-called Pilgrim's Road from Chalkēdōn via Nikaia and Ankyra/Ankara to Cilicia and Syria had been the main traffic artery across Anatolia until the 7<sup>th</sup> century, new economic and military centres arose, such as Amorion/Hisar, an important node already in the early Byzantine period, which became the seat of the *stratēgos* of the Anatolikon theme<sup>40</sup>, and Dorylaion/Şarhüyük near Eskişehir, an *aplēkton* (a camp and meeting point of the Byzantine armies)<sup>41</sup>. From the 8<sup>th</sup> century onwards, several roads led via Dorylaion, Amorion and Ikonion/Konya to the Cilician Gates (fig. 4). Ankyra remained a first-order fortress and retained its nodal importance, especially for routes to the east; this fact is attested by an Armenian itinerary (Młonač'ap'k), for which dates between 638 and 762 have been proposed. It shows a route (obviously a main route for the Armenians) from Dvin via Theodosiupolis/Erzurum, Kolōneia/Şebinkarahisar, Neokaisareia/Niksar, Amaseia/Amasya, Gangra/Çankırı, and Ankyra/Ankara to Constantinople and further to Rome<sup>42</sup>. Two 10<sup>th</sup> century Arabic itineraries too indicate roads from the east to Constantinople via Ankara<sup>43</sup>. But the more westerly city-fortresses now became the main hubs of diagonal connection through Asia Minor. However, all these "new" roads existed already in the Roman period, as can be seen from the Peutinger Table, milestones and extant road surfaces, although they did not yet form the main artery to Cilicia and Syria. A road from Nikaia to Dorylaion is found in the Peutinger Table, but the exact routing is debated; a more or less direct line via Armenokastron/Ermeni Pazarı seems more likely than a route through the Sangarios valley<sup>44</sup>. The road through the valleys of the Sangarios and the Karasu, its tributary, existed from antiquity but became especially important in the middle ages<sup>45</sup>. Likewise, there were several roads between Dorylaion and Amo-

<sup>37</sup> Bulliet 1975, 26.

<sup>38</sup> For some issues treated here briefly see now more detailed Kaya 2019.

<sup>39</sup> Lillie 1976, *passim*.

<sup>40</sup> Belke – Mersich 1990, 143.

<sup>41</sup> Kōnstantinos Porphyrogennētos, *Three Treatises*, 80-81, 155-157; Huxley 1975; Avramea 2002, 57-58.

<sup>42</sup> See The Geography of Ananias of Širak in Hewsen 1992, 320-321 (Appendix VI).

<sup>43</sup> Ibn Ḥauqal I 190-191, and al-Muqaddasī (quoted by Honigmann 1936, 262, 270-271).

<sup>44</sup> Belke 2017, 61-65; Belke 2020, 273; see below pp. 87-88.

<sup>45</sup> Belke 2017, 57-61; Belke 2020, 270-273.

riorion and between Amorion, Laodikeia Katakekaumenē/Lâdik and Ikonion, one of which is incorrectly represented on the Peutinger table; others are attested epigraphically or archaeologically by remains of road surfaces and/or bridges<sup>46</sup>. Even more westerly routes were preferred from the 10<sup>th</sup> century, especially after the sack and destruction of Amorion in 838<sup>47</sup>. These routes went to Ikonion via Kotyaeion/Kütahya, Akroinos/Afyon Karahisar and Philomēlion/Akşehir. Most stretches of these roads were known from antiquity, but some variants may have first developed in the middle Byzantine period<sup>48</sup>. So, an “intermediate road” is attested only in the early Komnenian period. It led from Dorylaion via Nakoleia/Seyyit Gazi, Santabaris/Bardakçı to Hebraikē/probably Hanköy, where it separated from the road to Amorion, and went on via Kedrea (near Bayat) and Polybotos (near Bolvadin) directly to Philomēlion. In the Ottoman period, it served as main road for the army and pilgrims alike<sup>49</sup>. Generalizing from these observations, it can be said that the Byzantines created and built very only few entirely new roads. But in some instances their main lines of communication were different from those chosen by the Romans.

### 3. Maintenance of roads

How usable were Anatolia’s roads in the middle Byzantine period? Although there is very little direct evidence in the sources, the state had to organize at least a minimum of maintenance and repair of roads and bridges in order to facilitate rapid army movements, the work of administration and tax collectors, but also to expedite trade, which grew in importance between the end of the Arab incursions and the coming of the Turks<sup>50</sup>. The traditional terms *dēmosia hodos* and *basilikē hodos*, mentioned in historical sources, as well as in tactical treatises and in documents, suggest that road maintenance was still the responsibility of the imperial treasury<sup>51</sup>. It was usually achieved by labour demanded from those who were living or had property along these roads<sup>52</sup>. How successful were these efforts? Although there were very few specific complaints about bad road conditions during campaigns, roads were sometimes characterized as narrow or difficult. Remarks like this may sometimes be regarded as a literary *topos*, but are in accordance with French’s observations on the narrowness of Byzantine roads<sup>53</sup>. In 877 the emperor Basilios I had to burn the shrubs and cut down the trees growing on a road near Kukusos/Göksun in Cappadocia, before he could pass with his army<sup>54</sup>. The armies of the First Crusade, which in 1097 went to Nikaia via Nikomēdeia/İzmit, first had to clear the road between the two cities with swords and axes, admittedly in a state of insecurity caused by the presence of the Turks<sup>55</sup>. In this instance, one

<sup>46</sup> Belke 1984, 97-99; Belke – Mersich 1990, 143-46.

<sup>47</sup> Taeschner 1924, 93.

<sup>48</sup> Belke – Mersich 1990, 144-145; Kaplan 2000, 88-89.

<sup>49</sup> Anna XI 3, 5; XV 3, 6; 4, 1-3; the northern part of this road (still from Amorion) is already attested by an Arabic itinerary of the 9<sup>th</sup> century (Ibn Hurdādbih 101 [translation 74]); Belke – Mersich 1990, 143-145; see also below p. 88.

<sup>50</sup> See the overview in Laiou – Morrisson 2007, 90-165.

<sup>51</sup> Dagron – Mihăescu 1986, 219.

<sup>52</sup> Stauridou-Zaphraka 1982, 32-38, 40-44; Haldon 2006a, 137-138; Avramea 2002, 59-61.

<sup>53</sup> E.g. Theophanēs 312 (a. m. 6116), on Hērakleios’ march to the east in 626.

<sup>54</sup> Kōnstantinos Porphyrogennētos, Vita Basilii 168; Hild 1977, 134.

<sup>55</sup> Gesta Francorum 176-167; Hagenmeyer 1898, 282-283.

has to bear in mind that the Byzantine government had simply not been able to keep roads in order for quite a long time because of the civil wars and the ensuing Turkish occupation after the battle of Mantzikert in 1071. The same holds true for the reports on bad road conditions during the Second and Third crusades<sup>56</sup>.

Byzantine armies obviously were not normally impeded by bad roads from moving in Anatolia, as two well-known examples show. The army which Rōmanos IV led to the battle of Mantzikert/Malazgirt in 1071 travelled ca. 1500 km across Asia Minor without hindrance (fig. 5). The emperor's baggage train included *ochēmata* (probably horse- or mule-drawn wagons), which required better roads than ox carts (*hamaxai*), but which were burnt in a fire while the army was camping in a plain in the Anatolikon theme. It then crossed the Sangarius river at the well-known Zompou bridge and the Halys/Kızılırmak probably at the "northern" Kesik Köprü (ca. 40 km south of Kırıkkale)<sup>57</sup>. Beyond Sebastia/Sivas Attaleiates speaks of two *atrapoi* (pathways) which headed to the thema of Kolōneia/Şebinkarahisar, but the term only seems to be a literary variation for the *hodoi* mentioned in the next paragraph. Before Mantzikert Rōmanos placed his heavy siege machines on no less than 1000 ox carts (meaning probably just a very great number). He probably had them transported over a distance of nearly 200 km from Theodosiopolis/Erzurum, where he had provisioned the army for the last time<sup>58</sup>.

In 1176, the emperor Manuēl I wanted to regain the capital of the Seljuks, Ikonion, and thus to destroy the dangerous rival empire. He was accompanied by an especially large baggage train, which consisted not only of pack animals, but also of numerous ox carts with the heavy siege engines. He assembled his troops as usual in the Ryndakos/Koca Dere valley (i. e. the plains around Lopadion/Ulubat) and travelled "through Phrygia" to Laodikeia (near Denizli). He must have used the well-known Roman road which led via Adrianu Thērai/Balıkesir, Thyateira/Akhisar, Sardeis/Sart, Philadelpheia/Akşehir, and Tripolis on the Meander (near today's Yenicekent) to Laodikeia. The ox carts which may have first joined the army near Laodikeia were driven slowly, but safely from the valley of the Meander/Menderes River to the narrow mountain pass of Tzybritzē, but here, according to Chōniatēs, they were the main reason for Manuēl's defeat<sup>59</sup>. The accounts of these two campaigns demonstrate that at least certain roads in Anatolia were good enough to carry heavy carts not only on plain terrain, but also in mountainous areas.

As stated above, there was a revival of trading activities in the comparatively peaceful period of the 10<sup>th</sup> and 11<sup>th</sup> centuries. Overland connections existed with the Hamdanids of Aleppo via the modified route of the Pilgrim's road<sup>60</sup>, with Trebizond as one of the terminal points of the Silk

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<sup>56</sup> Odo of Deuil 102-106; *Historia de expeditione Friderici* 72.

<sup>57</sup> Hild 1977, 81-82; Hild – Restle 1981, 103.

<sup>58</sup> Michaēl Attaleiatēs 107-113 and Nikephoros Bryennios 103-107. See Haldon 2006b, 8-18; Belke 2010, 54-55.

<sup>59</sup> Iōannēs Kinnamos 299-300 (the work breaks off with the report of the march to Tzybritzē); Niketas Choniates 178-182; Belke – Mersich 1990, 118-119.

<sup>60</sup> Dölger – Müller 2003, No. 728a; Dimitroukas 1997, I 155 (caravans carrying merchandise from Constantinople to Aleppo mentioned in a peace treaty of 969); Iōannēs Skylitzēs 321; Belke – Mersich 1990, 353-54 (tribute to be delivered by the Hamdanids to the emperor).

Road<sup>61</sup>, with the Persian countries via Theodosiopolis/Erzurum, and with Attaleia/Antalya, which was, like Trebizond, another land and sea transport intersection<sup>62</sup>. Some of the roads to the east and to Attaleia were even equipped with Imperial road stations, direct successors of the *mansiones* of Late Antiquity<sup>63</sup>. One may conclude that the conditions of some roads had improved considerably in the 10<sup>th</sup> and 11<sup>th</sup> centuries.

#### 4. The arrival of the Seljuk Turks and its impact on the road system

Turkish troops, tribes, and plundering groups penetrated Asia Minor as a consequence of the Byzantine defeat at Mantzikert in 1071 and the ensuing decade of civil wars and rebellions. The first Turkish state was created in Byzantine territory around 1080, centered at Nikaia, where Süleymān b. ̒utlumuş laid the foundations of the Sultanate of the Rum-Seljuks<sup>64</sup>, followed by Smyrna/İzmir, where the *emir* ̒aça conquered a territory that also comprised some of the Greek islands<sup>65</sup>, and Neokaisareia/Niksar and other cities of north-eastern Asia Minor, where the *emir* Dānişmend established his own dominion<sup>66</sup>. Land communications were interrupted more radically than during the Byzantine-Arab wars. Until they gradually won back the coastal parts of Asia Minor up to the borders of the Central Anatolian Plateau, the Byzantines had lost control of most roads in Anatolia. Already during the civil wars the omnipresent Turkish groups made it extremely difficult and precarious to cross the country. Insecurity was already widespread two years after Mantzikert. In 1073, Isaak Komnēnos, the brother of the emperor Alexios I, was taken prisoner by the Turks after the desertion of Roussel of Bailleul had caused the defeat of the Byzantines in Cappadocia, and brought to the area of Ankyra, where he was ransomed for a considerable sum. He and his brother Alexios, who had come to rescue him, were attacked at the village of Dektē west of the Sangarios on the march back to Constantinople by a group of Turks<sup>67</sup>. Two or three years later, the situation had deteriorated further. Alexios succeeded in capturing the Frankish rebel Roussel of Bailleul in Amaseia/Amasya and brought him to Constantinople. Alexios was almost killed by a group of Turks *en route*, while visiting the deserted house of his ancestors around Kastamōn/Kastamonu<sup>68</sup>. After another encounter with plundering Turks at Pontic Hērakleia/Karadeniz Ereğlisi, he received a letter from the emperor ordering him to return to the capital by ship, because the overland routes were said to be blocked by the Turks<sup>69</sup>. All these incidents show that travelling through Anatolia was possible only under strong military protection, if at all. Even this limited use of the Byzantine overland routes was no longer possible one or two years later.

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<sup>61</sup> Dimitroukas 1997, I 156; cf. Lopez 1945, 29-30, quoting Arabic sources.

<sup>62</sup> Ibn Ḥauqal I 192-93; II 337; Dimitroukas 1997, I 157-158.

<sup>63</sup> Dimitroukas 1997, II 586-597.

<sup>64</sup> Leiser 1998, 860; Belke 2011, 66-67.

<sup>65</sup> Brand 1991, 2134.

<sup>66</sup> Mélikoff 1965, 112-114.

<sup>67</sup> Nikēphoros Bryennios 147-167; see Vryonis 1971, 110-111.

<sup>68</sup> Anna I 3, 3-4; Nikēphoros Bryennios 195-197.

<sup>69</sup> Nikēphoros Bryennios 199-201; see Vryonis 1971, 111-112.



Security along the roads within the areas reconquered by Alexios I and his successors was re-established only slowly and for a limited period under the so-called Empire of Nicaea. Meanwhile the Rum-Seljuk Sultanate, with Konya/Ikonion as its capital, developed its own lines of communication, which to a great extent followed the routes established by the Romans and the Byzantines<sup>70</sup>. This period of relative security ended with the increasing neglect of the eastern provinces under the Palaeologan emperors and the rise of new Turkish principalities, among them that of the Ottomans, who within a few decades had conquered much of what had remained of Byzantine Anatolia. The main lines of communication, at least in the areas under Byzantine control, had still hardly changed, as a comparison with the Ottoman sources shows, but by-ways and tracks had often to be used in order to avoid clashes with the Turks. Around 1304, the traditional roads from the ports on the southern shore of the Gulf of Nikomēdeia were completely blocked by the Turks, and Nikaia could only be reached by night from the port of Kios/Gemlik on a pathway to the lake and then by boat to the city<sup>71</sup>. The maintenance of roads and bridges was of course impossible during this period. Safe travelling on Anatolia's roads only became possible again after the Ottomans had consolidated their rule over the country.

### 5. Continuity and change of some routes and roads in the Ottoman period (up to the 17<sup>th</sup> century)

The Ottomans seem to have built some new roads or road sections and created connections which, as far as we know, did not exist before<sup>72</sup>. The diagonal roads across Asia Minor, successors to the so-called Pilgrim's road of Late Antiquity, retained their importance for the Ottoman State. Documents from the beginning of the 16<sup>th</sup> century attest the Ottoman "Military Road", used by the Sultan's armies. Trading and pilgrim caravans, whose itineraries were documented only a century later, partly followed different routes<sup>73</sup>. The Ottoman military road from Üsküdar/Skutarion to İznik/Nikaia roughly corresponds to the Roman and Byzantine road<sup>74</sup>. As a consequence, between İzmit/Nikomēdeia and İznik the extant old road surface has a mixture of Roman and Ottoman fabric<sup>75</sup>, just as in the Döşeme Boğazı. The caravans always preferred the ferry over the Gulf of Nikomēdia from Dil to Hersek/Helenopolis<sup>76</sup>.

Beyond İznik there were greater divergences from the Byzantine road system as well as alterations within the Ottoman period (fig. 6). Dorylaion had already replaced Ankyra in the middle Byzantine period as main road junction in central Asia Minor. While the Byzantines usually seem to have marched from Nikaia through the valleys of the Sangarios and the Karasu, the Ottoman armies headed south from İznik to Yenişehir, an early foundation (ca. 1300) of Osman himself at

<sup>70</sup> See, e. g., Yavuzcan 2011; Turchetto in print; Redford in print.

<sup>71</sup> Geörgios Pachymerēs XI 21 (IV 455 Failler).

<sup>72</sup> See the classic work of Taeschner 1924-1926.

<sup>73</sup> See Taeschner 1924-1926, 78-85.

<sup>74</sup> Taeschner 1924-1926, 105-110, 112-116 with tab. 1, 2, 4; the material with indication of sources can also be found (but scattered by dividing the routes into short stretches) in Luther 1989, so for Üsküdar-İzmit-İznik 105-106 (Üsküdar-Diliskelesi), 37 (Diliskelesi-Hereke), 51 (Hereke-İzmit), 60 (İznik-İzmit).

<sup>75</sup> Lefort 1995, 216-217.

<sup>76</sup> Taeschner 1924-1926, 110-112 with tab. 3 Luther 1989, 37 (Dil-Hersek), 52 (Hersek-Kızderbendi), 70 (Kızderbendi-İznik).

a location, where no Roman or Byzantine settlement seems to have existed. From there, they proceeded to Akbıyık and by Ermeni Pazarı/Pazarcık/Armenokastron, Bozüyük and İnönü either to Eskişehir or to Kütahya/Kotyaeion<sup>77</sup>. These were variants of the diagonal road known from Byzantine sources.

So the Ottoman military road between İznik and Ermeni Pazarı is probably a new Ottoman road, whose course was determined by the foundation of Yenişehir. The Peutinger Table shows a Roman road from Nicea to Dorileo by an intermediate station called Agrillo<sup>78</sup>. Sencer Şahin proposed hypothetically to equate Agrillo with an ancient settlement southwest of Gökçesu<sup>79</sup>. This route would be quite similar to the Ottoman military road. However, recent discoveries of road surfaces allow one to determine that it ran via Köprühisar and Yarhisar (a more probable candidate for Agrillo) towards Ermeni Pazarı<sup>80</sup>. In that case, the Ottomans would have modified an earlier route, a scheme that is seen quite often in the development of the Ottoman road system.

Documents from the 17<sup>th</sup> century, after the foundation of Vezirhan as a new road station in 1659/60, show yet another route from İznik to Eskişehir. It left the old Sangarios-Karasu road south of Bilecik and led to Eskişehir via Söğüt, the old cradle of the Ottomans<sup>81</sup>. It has been assumed that the armies of the First Crusade marched along this route from Nikaia to the battle field near Dorylaion<sup>82</sup>, but this assumption, which has not been resumed by later historians of the Crusades, cannot as yet be proved. It is therefore not at all sure that this variant was already known to the Byzantines, and so this may be another example of a new Ottoman road.

Like the Romans and the Byzantines, the Ottomans used several routes between Eskişehir (or İnönü) and Konya/Ikonion. The most important military and caravan road went south from Eskişehir through Seyyidgazi/Nakoleia, Bardakçı/Santabaris and Hanköy (Hüsrevpaşa Hanı founded in 1629, possibly the Byzantine Hebraikē<sup>83</sup> to Bayat (near Byzantine Kedrea, described as thriving, fortified market place by al-İdrīsī<sup>84</sup>, and via Bolvadin/Polybotos to Akşehir/Philomēlion<sup>85</sup>. This is more or less the “intermediate road” first attested under the Comnenian emperor Alexios I.

To sum up: The foundations of the road network in Anatolia were laid by the Romans. It was so dense that the emergence of new political, economic and military centres usually did not require

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<sup>77</sup> Taeschner 1924-1926, 118-120 with tab. 5; Lefort 2003, 102-104, Pl. VI-VIII; Luther 1989, 109 (İznik-Yenişehir), 109-110 (Yenişehir-Pazaryeri), 88 (Pazaryeri-İnönü), 56 (İnönü-Eskişehir), 76 (Kütahya-İnönü).

<sup>78</sup> Tabula Peutingeriana IX 2-3: Nicea XXIII Agrillo XXXV Dorileo.

<sup>79</sup> Şahin 1981, 20.

<sup>80</sup> Kaplanoğlu 2000, 27-28; Belke 2017, 61-65; Belke 2020, 273.

<sup>81</sup> Taeschner 1924-1926, 122-124 with tab. 6; Luther 1989, 61-62 (İznik-Osmaneli-Vezirhan-Bilecik), 25 (Bilecik-Söğüt-Eskişehir).

<sup>82</sup> Runciman 1951, 186-187, n. 1.

<sup>83</sup> Eyice 1969.

<sup>84</sup> In Jaubert 1840, 304-306.

<sup>85</sup> Taeschner 1924-1926, 124-126 with tab. 7 and 8; Luther 1989 42 (Eskişehir-Seyyidgazi), 94-95 (Seyyidgazi-Hanköy), 51 (Hanköy-Bayat), 20 (Bayat-Bolvadin), 32-33 (Çay-Akşehir and Çay-Bolvadin).

new roads to be built, but shifted traffic to other roads that already existed. So, the Byzantines, as later the Ottomans, inherited many roads from their predecessors. These were of course determined by the terrain and by the important centres. Some differences between the Byzantines and the Ottomans regarding new roads may reflect the number and quality of extant sources rather than real differences. The creation of new towns, such as Yenişehir, and the building of caravanserais and other pious foundations (e.g. Vezirhan or Hüsrevpaşa Hanı) by high-ranking officials of the Ottoman state, convey the impression that there were more changes of traditional routes during the Ottoman period than are known for the Byzantine period. The majority of the main lines of communication, however, survived from the Roman into the Ottoman period.

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**Merkezi/Orta Küçük Asya'nın Kuzeybatı ve Komşu Bölgelerindeki Yollar ve Güzergâhlar:  
Roma'dan Bizans'a, Osmanlı Dönemi'nde 17. Yüzyıla Kadarki Kaderlerine Dair Bazı Yorumlar  
Öz**

Çalışma, kuzeybatı Küçük Asya'daki (ve merkezi/orta bölümlerindeki) Roma'dan Bizans Dönemi'ne kadar olan yolların gelişimini inceleyerek, Türk döneminde 17. yüzyıla kadar bazı değişikliklere işaret eder. Uzun mesafeli trafiğin ana güzergâhlarına ilişkin dikkate değer bir süreklilik bulunmakta, ancak bu güzergâhlar, farklı askeri ve ekonomik odaklara ve ihtiyaçlara karşılık gelecek şekilde ayrıntılı olarak değişebilmekteydi. Yolların tasarım ve yapım teknikleri değişmişti; devlet ekonomik kaynaklara bağlı olarak vagonlar ve at arabalarından yük hayvanlarına kadar olan değişime harcama yapabiliyordu. Antikçağ'ın sonunda Roma İmparatorluk Dönemi'nin geniş, taş döşemeli uzun-mesafe yollarının ihmal edilmesi Küçük Asya'daki taşıt trafiğinin kademeli olarak azalmasıyla bağlantılıdır. İ. S. 6. yüzyıla kadar seyahat ve taşıma, basit kağı arabaları üzerindeki kısa mesafe taşımacılığı hariç, binek ve yük hayvanlarına dayanmaktadır. Yollar bu ulaşım araçlarına uyarlanmış, daha dar bir hale gelmiş ve sarp geçitlerde basamaklandırılmıştır.



7. yüzyıldan itibaren doğu eyaletlerinin kaybedilmesinin ardından ve Anadolu'nun neredeyse yıllık gerçekleşen Arap istilaları sırasında, Bizanslılar Roma Dönemi'nin ve Geç Antik Çağ'ın ana yollarından kısmen farklı olan, ancak çoğunlukla Roma seleflerinden miras kalan yolları seçti. Küçük Asya boyunca ana yollar genellikle kabul edilebilir bir düzen içinde tutuldu, ancak çok az yeni yol inşa edildi.

Selçuklu fethinden sonra yollar tekrardan emniyetsiz bir duruma geldi. Ana iletişim hatları en azından Bizans kontrolü altındaki bölgelerde değişmedi. Osmanlılar, Bizanslıların askeri seferler ve ticaret için kullandıkları yolların çoğunu devraldı. Yine de en azından sınırlı sayıda sahip tamamen yeni yol inşa etmeye hazır oldukları anlaşılmaktadır. Bina teknikleri aşağı yukarı Bizans seleflerinin örneklerini izlemiştir.

*Anahtar Sözcükler:* Küçük Asya, Roma, Bizans ve Osmanlı yolları, yol yapım tekniği, yol yüzeyleri, trafik araçları, Roma'dan Osmanlı'ya kadar olan iletişim yollarının geliştirilmesi.

**Roads and Routes in Northwestern and Adjoining Parts of Central Asia Minor: From the Romans to Byzantium, with Some Remarks on their Fate during the Ottoman Period up to the 17<sup>th</sup> Century**  
**Abstract**

The paper examines the development of roads in northwestern (and parts of Central) Asia Minor from the Roman to the Byzantine period, pointing also to some changes in the Turkish period until about the 17<sup>th</sup> century. There was a remarkable continuity regarding the main routes of long-distance traffic, but these routes could change in detail, corresponding to different military and economic focuses and needs. Design and building techniques of the roads changed, depending on the economic resources the state was able to spend and above all on the change from wagons and carts to pack animals. Neglect of the wide, paved long-distance roads of the Roman imperial period at the end of antiquity was linked to the gradual decrease of vehicular traffic in Asia Minor. By the sixth century AD, travel and transport relied on mounts and pack animals, except for some short-distance transportation on simple oxcarts. Roads were adapted to these means of transport and became narrower and stepped at steep passages.

From the seventh century onwards, following the loss of the eastern provinces and during the nearly annual Arab invasions of Anatolia, the Byzantines chose routes that were partly different from the main routes of the Roman period and Late Antiquity, but which mostly were also inherited from their Roman predecessors. The main routes through Asia Minor were generally maintained in an acceptable order, but very few really new roads were built.

After the Seljuk conquests roads became insecure again. The main lines of communication did not change, at least not in regions under Byzantine control. The Ottomans took over most of the roads used by the Byzantines for their military campaigns and for trade. It seems, however, that they were readier to build at least a limited number of entirely new roads. Their building techniques more or less followed the examples of their Byzantine predecessors.

*Keywords:* Asia Minor, Roman, Byzantine and Ottoman roads, road building technique, road surfaces, means of traffic, development of communication routes from Roman to Ottoman.



Fig. 1) Roman Via Sebaste in the Döşeme Boğazı (Pamphylia) with ruts



Fig. 2) Early Byzantine road near Sağıklı (Cilicia)



Fig. 3) Byzantine or (rather) Ottoman road in the Döşeme Boğazı (Pamphylia) with steps

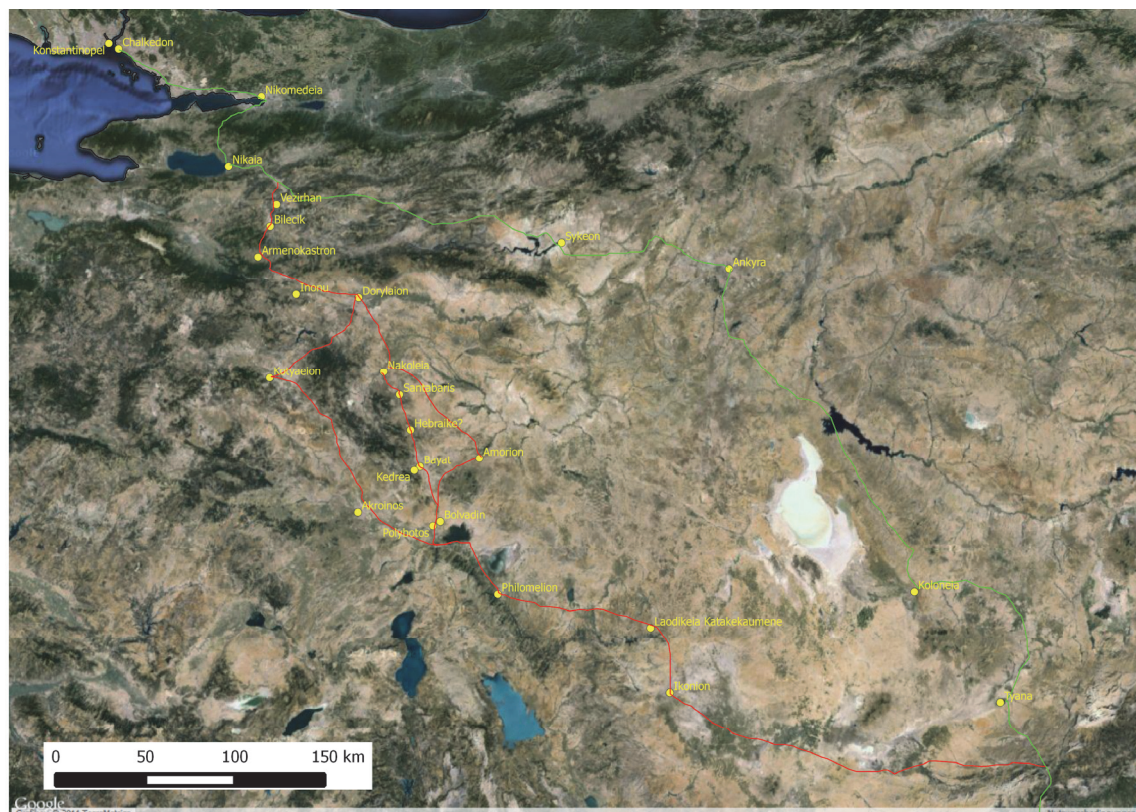


Fig. 4) Map showing the "Pilgrim's Road" and its Middle Byzantine variants

Kleinasien in byzantinischer Zeit



Fig. 5) Map showing (among other routes) the march of Romanos IV to Mantzikert (from Belke 2010)

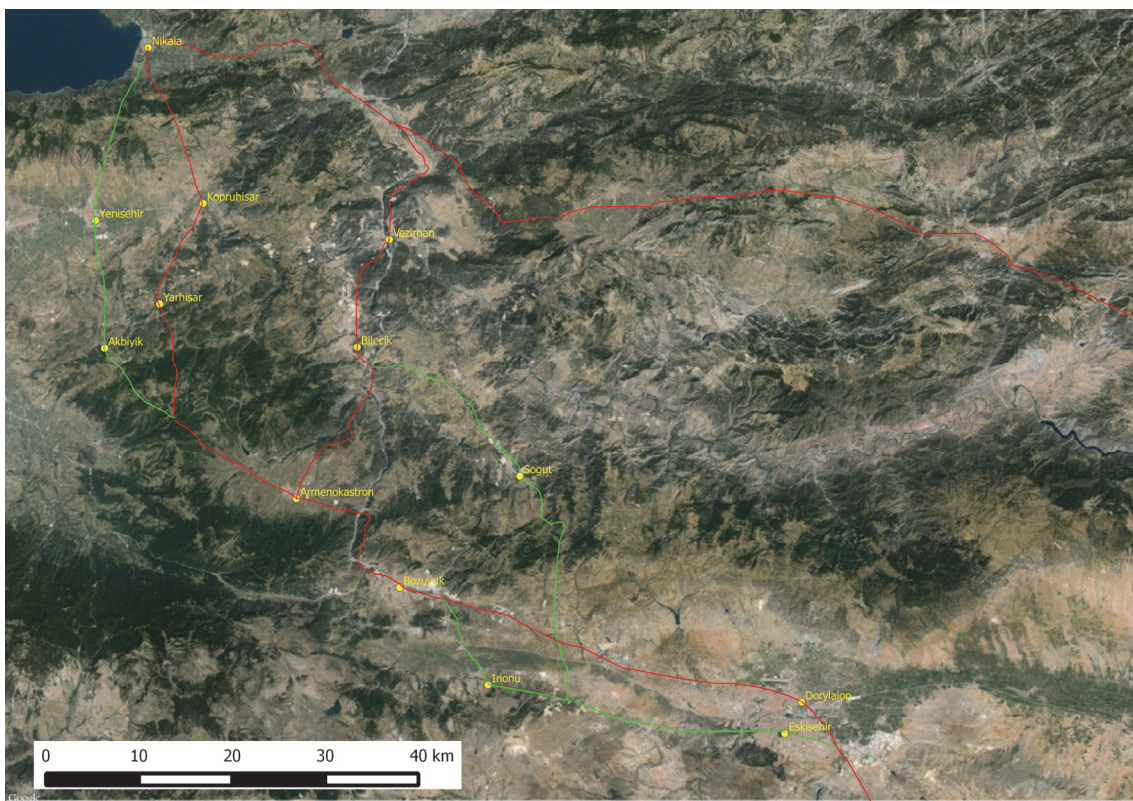


Fig. 6) Map showing the Byzantine and Ottoman (if presumably different) roads between Nikaia (İzmit) and Dorylaion (or Eskişehir respectively)