THE IMPACT AND INTERACTION OF STATE TRANSPORT IN THE ROMAN EMPIRE

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Transport was inevitably an integral part of ancient life. Land transport offered great advantages over river or sea transportation, because of its simple and general accessibility as well as the fact that it is much less dependent upon weather conditions. Thus the greatest importance was attached to land transport, whether in connection with private, business or state interests, as is reflected throughout the source material. Land transport in itself and the road system, which provided the essential requirements for such transport, form a typical characteristic of Roman culture and the organization of Roman rule, which sought to control the Empire by means of a network of connecting lines and by efficient communication².

Within the framework of my topic I shall limit myself to land transport, without in any way wanting to play down the value which the Romans attached to transport by water. Hence it follows that the problem of the relative costs of land and sea transport and its possible consequences for the economy lie outside the scope of this paper.

Regarding the organization and the interaction of public and private transport the following questions will be examined: what relationships exist between public and private transport? what influences and impact can be observed? In order to answer these questions it is necessary first of all briefly to define state transport and to outline its principles of operation and organization. It will become clear that state transport consisted to a large extent of private resources, which were bound to the state by means of obligation and compulsion. Central to the discussion are sources which document interactions between state and private sector and illustrate how they were strongly bound together. The burdens and obstacles which state transport caused become clear, as it is these phenomena which are predominant in the sources. Positive influences of state transport on the private sector can also be traced, but it is not easy to judge their influences particularly clearly.

¹ I would like to thank Chr. Marek (Zürich) for comments on this paper and thank as well J.W. Rich for his linguistic revision.

² For different aspects of this topic see now R. Laurence – C.E.P. Adams, ed., *Travel and Geography in the Roman World* (London 2001); for the road network in Italy see esp. R. Laurence, *The Roads of Roman Italy: Mobility and Cultural Change* (London 1999).

Organization of state transport³

The state had to see to it that numerous transport tasks were carried out; these had to be performed in different ways according to their importance and extent. The tasks were of three main types: the arrangement of journeys, the transfer of messages and the transport of goods. They might be performed either by using the state's own resources or those of others.

Since the state resources were strictly limited - for example the vehicles for imperial travel or means of transport for the army or for functionaries - it was necessary for the majority of transport needs to make use of the resources of others, i.e. by requiring the population to perform duties or make use of their services. These could be acquired either by purchase or rent on the open market, i.e. as part of general free market processes, by compulsory exactions. Here we can observe strict approaches - such as complete or temporary expropriation and requisition - or less strict forms - such as the grant of privileges or payment of compensation for services and duties performed by the population.

For some of its transport needs the Roman state under Augustus developed a system which was known as the *cursus publicus* from the 4th century onwards⁴. Since the late imperial institution was based on the same principles as in earlier times, it seems justifiable to apply the same name to the system in its early imperial form as well. With the help of this system the most urgent tasks could be performed rapidly, safely and efficiently. The use of this system was severely restricted, so that not all state requirements for journeys, message transfer and the transport of goods could be met through the *cursus publicus*. The functions carried out through the *cursus publicus* were messenger services for the emperor, journeys of high state representatives, and the transport of goods which were important for the state, such as gold and silver or clothes and equipment required by the court and army. In the following I shall only refer to this aspect of state transport, leaving aside other forms such as grain haulage and the transport of army supplies.

The *cursus publicus* was a government transportation facility based on a service obligation by private persons. They provided equipment, animals and wagons used by government agents during their travels. This obligation of

³ In detail see now A. Kolb, *Transport und Nachrichtentransfer im Römischen Reich* (Berlin 2000).

⁴ For a full discussion of the *cursus publicus* see Kolb 2000, op. cit. (n. 3), 49-226.

the population to perform duties, *munera*, rested on the municipalities, which had in the long run to take care of the functioning of this infrastructure.

The impact and interaction of state transport in the sources

The burdens which state transport imposed on the population cannot be measured accurately, since the few references in extant sources provide us with only an indistinct picture of the demand for the services of the *cursus publicus*.

Procopius in his *Secret History* tells us that the individual stations would have been equipped with forty horses⁵. This appears, however, to be exaggerated; horses were the most expensive transport animals of all, and in the 4th century only five to six horses - later ten - were allowed to leave a station on one day. At best one could imagine that Procopius' forty horses were in fact the total stock of all animal species of any given station, without any details concerning specific animals. As early as the reign of Tiberius it is attested that a functionary of the highest rank could claim ten carts or substitute three mules for each cart or two donkeys for each mule, so yielding a maximum of thirty mules or sixty donkeys. This represents the maximum obligation which the municipality of Sagalassus had to contribute to travellers at the behest of the state⁶. In the 4th century a *vicarius* was permitted to use thirty donkeys, but only ten horses⁷.

Further information is provided by the Theodosian Code, with data concerning the number of draught animals used with individual vehicles. The *reda* usually seems to have been pulled by four mules, though in the reign of Julian - perhaps only in special situations - also eight (in summers) and up to ten animals (in the winter) were permitted⁸. The heaviest waggon of the *cursus publicus*, the *angaria*, might under normal conditions have been drawn by two oxen, as the name *angaria* - a team of oxen - itself indicates, but in order to obtain higher speeds, apparently quite often four or even more oxen were used. As we have already noted, in the 4th century five to six horses - later ten - as well as one *reda* were allowed to leave a station on one day⁹. On this basis we may arrive at a number between at least nine

⁵ Procopius, *Historia Arcana* 30.4.

⁶ SEG XXVI 1392.

⁷ CTh 8.5.38 (a. 382).

⁸ CTh 6.29.5 (a. 359); CTh 8.5.8 (a. 357 [356 Mommsen, Seeck]). Moreover Libanius (Orations 18.143) states that under Constantius II. 20 mules were used to pull one waggon because of their bad condition.

⁹ CTh 8.5.35 (a. 378). 40 (a. 382); CJ 12.50.8.

(five horses and four mules) and twenty animals (ten horses and ten mules) as a standard station stock for the requirements of the fast transport section (the *cursus velox*), plus at least two to four oxen for the *cursus clabularius*. Moreover, the legal texts assert that approximately a quarter of the station stock of animals had to be renewed every year. Thus in view of the uncertainty of the evidence I would hesitate to make any estimate of standard station stock¹⁰. There may in any case have been regional variations.

In order to make an estimation of further burdens on the population additional factors must be taken into account: the number of stations as well as the density of settlements and municipalities along any given route, as the municipalities were obviously responsible for the stations along the main highways, which ran through their territory. Finally a certain sum of money would have to be deducted from the burdens during the early Empire, because at that time there existed firm tariffs for the limited obligation renting established by the state. Since these travellers' fees were sums specified by the state, they did not correspond to the market prices. They are, therefore, only to be evaluated as compensatory payment for the absence of beasts and waggons during the period of the use. Very probably a profit could not be made in this way.

Beside these regular burdens the inhabitants of the Empire had to reckon with additional ad hoc requirements, which were raised when necessary. In such a case no private interests could be claimed. State demands had absolute priority as the following Egyptian private letter illustrates¹¹: *"Troilos to his Sister Mazatis, greeting. Above all I pray that you prosper, and the child also, bless him. I wanted to send the child a few gifts, and a demand for transport beasts having suddenly occurred, the camels were away from home ..."* This 3rd century papyrus shows that a sudden demand for camels could occur for state tasks. These could then be claimed from the people without any consideration of their circumstances and activities: state transport had absolute priority.

However, illegal requisitions of transport and other services, which are very fully documented, formed the heaviest burden. Numerous complaints of the population (and reflections of those) are documented in inscriptions and papyri from the 1st to 3rd century¹². For the later Empire some of the

¹⁰ Cf. calculations by L. Di Paola, *Viaggi, trasporti e istituzioni. Studi sul cursus publicus* (Messina 1999), 49 n. 60, on the basis of Procopius.

¹¹ P. Fuad. Univ. 6.

¹² Kolb 2000, op. cit. (n. 3), 118 n. 5; esp. for the 3rd century see P. Herrmann, 'Hilferufe aus römischen Provinzen: Ein Aspekt der Krise des römischen Reiches im 3. Jhdt. n. Chr.', *Berichte aus*

constitutions of section 8.5 of the Theodosianus Code likewise show that the regulations concerning the permitted contingents of animals were ignored again and again. According to the rules only animals assigned to the *cursus publicus* were to be taken for state transport purposes, as the following text shows explicitly¹³: “*For if any person should complete a stage of his journey and by chance should not have oxen for its continuance, he must wait until oxen have been produced by those who supervise the cursus publicus, and he must not remove those oxen that serve the cultivation of the earth.*” However, the failings of the office-holders frequently obstructed the economic activities of the inhabitants of the Empire.

Positive influences of state transport

As stated above the *munera* for the *cursus publicus* rested on the municipalities of the Empire. These could meet their obligation in different ways: either by carrying out the services themselves or by putting dependent municipalities in charge of their execution¹⁴.

Within the first category two methods can be seen. A city could on the one hand lay the obligation on individual liturgists; this means persons were appointed, who had to fulfil their contribution either financially or physically. On the other hand the city could use private transport providers, who made animals and carts available probably in return for financial compensation by the municipality. Such transport contractors were frequently organised in *collegia* and are up to now documented in Italy substantially better than in the rest of the Empire¹⁵. The rental of carts and draught animals with and without drivers - in particular in Italy - was obviously important not only for the private economy. Cooperation between the state and transport contractors in the framework of the *cursus publicus* is documented up to now only in Italy. The provinces can provide similar examples only for other state transport requirements, in particular army supplies and the transport of corn to Rome.

den Sitzungen der Joachim-Jungius-Gesellschaft der Wissenschaften 8/4 (Göttingen 1990), but see the contrasting view of W. Scheidel, ‘Dokument und Kontext: Aspekte der historischen Interpretation epigraphischer Quellen am Beispiel der ‘Krise des dritten Jahrhunderts’, *Rivista Storica dell’ Antichità* 21 (1993), 145-164.

¹³ CTh 8.5.1 (a. 315).

¹⁴ SEG XXVI 1392 l. 11-12.

¹⁵ Kolb 2000, op. cit. (n. 3), 184 n. 5.

In the organisation of the services for the *cursus publicus* Italy constituted a special case at least at the beginning of the 3rd century, with transport providers working in direct conjunction with the state officials responsible for the administration of the *cursus publicus*, the *praefecti vehiculorum*, to ensure the upkeep of certain roads and highways. This is documented in three inscriptions, in which associations of drivers honour the emperor Caracalla, as in the present example dated to 214 A.D.¹⁶:

Magno et invicto ac super omnes principes fortissimo felicissimoque imp(eratori) Caes(ari) M(arco) Aurellio Antonino Pio Fel(ici) Aug(usto), Parth(ico) max(imo), Brit(annico) max(imo), German(ico) max(imo), pont(ifici) max(imo), trib(unicia) pot(estate) XVII, imp(eratori) III, co(n)s(uli) III, p(atri) p(atriciae), mancipēs et iunctores iumentarii viarum Appiae Traianae item Anniae cum ramulis, divina providentia eius refoti, agentes sub cura Cl(audii) Severiani, Mamili Superstitis, Modi Treventini, praefff(ectorum) vehiculorum.

To the great and undefeated and above all *principes* strongest and most fortunate Emperor Caesar Marcus Aurelius Antoninus Pius Felix Augustus, Parthicus Maximus, Britannicus Maximus, Germanicus Maximus, *pontifex maximus*, in the 17th year of his tribunician power, saluted as *imperator* for the third time, consul for the fourth time, father of his country, the contractors, harnessers and drivers of the roads Appia, Traiana and Annia with their branches, revived by his divine providence, acting under the care of Claudius Severianus, Mamilius Superstes, Modius Treventinus, *praefecti vehiculorum*.

The documents, therefore, suggest that the prefects and not the municipalities appointed the service providers. However the inscriptions do not permit further definite conclusions concerning the organisation of the services.

Thus it must remain open to question whether payment for the services was made through the state or whether the services were compensated for by privileges. In any case the transport agents were grateful for their position,

¹⁶ CIL VI 31338a = ILS 452; similar are CIL VI 31369; 31370.

which suggests that they could use it to their advantage, very probably a financial advantage. What could this have been ?

Here one should probably think first of auxiliary duties within the framework of the state transport and secondly of possible earnings independent of it. The users of the *cursus publicus* only had the right to claim a certain contingent of carts and animals at the expense of the state. When more than such a contingent was necessary, it therefore had to be acquired at customary market prices. This might have happened quite often, since the carts and animals allotted to state officials were strictly limited¹⁷. Precisely this may have occurred not infrequently in the case of journeys undertaken by office-bearers, who usually travelled with a larger entourage - for example on the journey to their province. In these cases the transport contractors could practise their profession at a profit.

The second and probably by far the more extensive possibility for making deals, was with private persons and businessmen who were travelling or had to conduct transports, but did not have their own carts and animals. In these cases the entrepreneurs co-operating with the prefects had the advantage that they were already established at fixed and conveniently situated places of one or several roads or highways and thus dominated this market. Alongside fulfilling the requirements of state transport provision for private transport was probably their priority.

Considering the interaction of state and private sector for the benefit of the private ones, one could also imagine a comparable situation for those, who provided accommodation at the stations.

Turning again to the secret history of Procopius, we find descriptions of the functions and structure of the *cursus publicus* in earlier times (30.1-7). He states that land owners - in particular in the interior of the country - would have taken most advantage of the institution, because they sold their surplus agricultural products annually to the state for the maintenance of horses and horse caretakers¹⁸: *"The owners of the land everywhere, and particularly if their lands happened to lie in the interior, were exceedingly prosperous because of this system. For every year they sold the surplus of their crops to the government for the maintenance of horses and grooms, and thus earned much money."*

For his own times Procopius draws a picture of drastic deterioration of the system, because Justinian is said to have reduced routes and above all to

¹⁷ SEG XXVI 1392 l. 20-21: "*sed amplius desiderabit conducet arbitrio locantis*".

¹⁸ Procopius, *Historia Arcana* 30.6-7.

have limited the number of changing stations. Consequently the profits made by agrarian producers also disappeared¹⁹: „*He allowed one station only for each day's journey, using not horses, however, but mules and only a few of them. It is no wonder, consequently, that things which take place in each country, being reported both with difficulty and too late to give opportunity for action and behind the course of events, cannot be dealt with at all, and the owner of the lands, with crops rotting on their hands and going to waste, continually lose their profits.*“ Procopius establishes a direct correlation between the stations of the *cursus publicus* and the agrarian producers. Farmers are said to have sold their surplus to the change stations in internal regions.

We have to ask ourselves, which products this concerns and whether the picture of Procopius' libellous pamphlet on the imperial couple corresponds to ancient reality. Procopius defines the type of the agrarian products as "*produce for the maintenance of horses and grooms*". Therefore it concerns on the one hand animal foodstuff (chaff, barley) and on the other hand food for the maintenance of the subordinate personnel of the post stations.

In order to keep the animals of the *cursus publicus* in fodder supplies had to be present at the change stations. From the few documents which provide information about this integral part of the station equipment, it follows that its supply would have to be performed by the population during the early and high Empire. This is indeed illustrated by the argument between the two Phrygian villages Anosa and Antimacheia in the years 200-237. Beside the extent of the obligation the argument concerned, how animals and also the fodder were to be made available, which were to be provided by each municipality. The imperial procurator Threptus decided that both settlements were responsible for the necessary fodder, whereby each had to cover half of the requirement²⁰. An Egyptian ostrakon from the Arsinoites - dating from autumn 290 - is the next document chronologically speaking²¹. It transmits the receipt of a citizen, who had delivered fodder for the 'fiscal' horses.

The later sources show that such deliveries in kind continued to be customary. The animal feed for the *cursus publicus* at that time was part of

¹⁹ Procopius, *Historia Arcana* 30.11.

²⁰ SEG XVI 754 (a. 200-237) l. 14, for the interpretation of ἐνθήκη as fodder see W.H.C., FRENCH, 'A Third-Century Inscription Relating to Angareia in Phrygia', *Journal of Roman Studies* 46 (1956), 51 and 55; T. Zawadzki, 'Sur une inscription de Phrygie relative au *cursus publicus*', *Revue des Études Anciennes* 62 (1960), 90.

²¹ PSI XII 1268 (a. 290).

the real estate tax²². As late as the 6th century an Egyptian papyrus from Antaeopolis illustrates such a fee for animal rations (*capita*), since barley and chaff for the animals of the *cursus* formed a part of the *annona*²³. On the other hand in Egypt as *adaeratio* of the *annona* payments were also made in money, with which the station directors could buy fodder²⁴. This purchase of feeding stuffs from tax funds had been taking place also in some other parts of the Empire as early as the 4th century: in Illyricum, Italy and Africa²⁵. Further information on these arrangements is provided by evidence of their abuse²⁶. An edict from the year 403 already shows both procedures operating alongside one another²⁷.

What follows from all this for the way in which we view the picture presented by Procopius ?

The purchase of animal foodstuffs from farmers did not take place in all regions of the Empire. As mentioned in Egypt in the 6th century both payments in cash and in kind were contributed. The levying of money in place of fodder and the direct purchasing of feeding stuffs by the station directors - mentioned by Procopius - could refer among other things particularly to the route from Byzantium up to the Persian border, since Procopius mentions this route explicitly. In addition Procopius stresses that it is predominantly inland farmers, who would have enjoyed such advantages.

This procedure would also be dependent upon the economic realities of any given period, since it was expensive to transport of cereals from internal regions to coastal harbours for shipping. Therefore it appears logical that the taxpayers there generally did not pay their fees in kind, but in money and therefore the stations could not be provided with fodder via cereals raised by tax.

As to the second point, the provision of subsistence for the grooms, these were - according to the laws of the 4th and 5th century - at that time *servi publici*²⁸ and were supplied by the state with *vestis* and *annona*²⁹. Whether they still held this status under Justinian remains as yet unattested,

²² CTh 11.1.21 (a. 385). 11.1.9 (a. 365).

²³ P. Freer 08.45 c-d (6. cent.) l. 30, cf. J. Gascou, 'La table budgétaire d'Antaeopolis', in: *Hommes et richesses dans l'Empire byzantin* I, 4. -7. siècle (Paris 1989), 279-313, esp. 301.

²⁴ P. Cair. Masp. 67057 (ca. a. 539) l. 10.

²⁵ Over these districts ruled the pretorian prefect Mamertinus, to whom the following was addressed: CTh 8.5.23 (a. 365); cf. Zosimus 2.8.3.

²⁶ CTh 8.5.60 (a. 400).

²⁷ CTh 8.5.64 (a. 403).

²⁸ CTh 8.5.58 (a. 398); 8.5.60 (a. 400); 8.5.21 (a. 364).

²⁹ CTh 8.5.31 (a. 370 [376 Seeck]).

but it is nevertheless conceivable that they did. If this applies, Procopius' reference can concern only additional sales in Procopius' text, which the farmers transacted with the grooms in supplementation of their the state rations. However, if the manning of minor service was not carried out by state personnel any more - as could for instance have been the case in parts of Egypt ³⁰ - then the grooms were normal consumers acquiring all their supplies by purchase, and so formed a better sales opportunity for the farmers.

Altogether the complaint of Procopius nevertheless appears to be exaggerated, because in the inland regions the state rest and change stations cannot have formed the only outlet of the farmers. Mainly the local markets were certainly their customers. A decrease in the number of stations alone - if it took place at all - can therefore hardly have brought about the ruin of the agrarian producers. If one however does not only think about the grooms of the stations - specified by Procopius as customers - but takes into account that at the same places beside official traffic also private traffic was very probably conducted, then the stations actually had a larger volume as outlets for the surrounding farms. The losses for agrarian producers were then certainly larger when such stations were abolished.

To sum up, state transport consisted to a large extent of private sector resources, which were bound by obligation and compulsion to the state. Interactions between state and private sector and the ties which bound them become clear particularly in the burdens and obstacles, to which state transport gave rise and of which we hear so much in the sources. We can however, also observe positive influences of state transport on the private sector, although to precisely what an extent they operated is not clear.

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³⁰ P. Got. 9 (a. 564) shows a registrar whose wages were paid by corporations; cf. Kolb 2000, op. cit. (n. 3), 198.