

Nodes. New Perspectives on Road- and River-Stations and Communication Networks in Roman Italy

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Introduction. Integration between Land and River Transport

The influential theory by Moses Finley,¹ who argued that Roman roads did not play a key role in the economic development of Roman power, but that they mainly impacted political and military aspects, as costs of terrestrial trade were much higher than those of maritime trade, and that land transport had to be considered negligible, has recently been challenged by Ray Laurence, who rather stressed the role played by the overland route network.² The opinion that in the Roman world it was much cheaper to transport goods by sea rather than by land was so rooted that even non-specialised literature insisted on the dominance of water-transport, to the point that for *Gallia* it is argued that “bien souvent la voie de terre constitue alors qu’un simple trait d’union entre deux cours d’eau navigables”.³ Indeed, the figures of estimated costs per maritime, riverine and overland transports, mainly based on the Edict of Diocletian, still show an astonishing difference.⁴ On the other hand, the importance of combining land and river transport has been increasingly emphasised.⁵ Probably, different strategies were adopted depending on the fragility or the weight of goods, and mobility of people undoubtedly followed different patterns. Incidentally, rivers and seafaring were hampered by seasonality and for “independent travellers” they implied many more restrictions with less freedom in the organisation of the journey itself, since timing, schedule and direction of travel were much more subject to someone else’s regulation.⁶

The schematic map of the communication networks in early Imperial central Adriatic Italy (fig. 1), recently elaborated by Frank Vermeulen, shows how the web was woven pivoting around the towns and road-agglomerations that worked as cross-points between overland routes and waterways.⁷ In this peculiar geographical configuration of the region, where parallel river valleys generally link in a linear fashion the central mountain range of the Apennines to the sea, transversal intra-valley connections had the specific role of complementing the riverine network, especially between the middle valleys and the coast, where several rivers are thought to have been seasonally navigable in that era. Indeed, navigable rivers, providing the settlements that bordered them, with “a natural highway to and from the sea”,⁸ can be considered as agents in Roman history,⁹ and even if the location on the banks of a river exposed these settlements to the dangers of frequent floods, many towns were founded along them or at their mouth (Rome, Lyon and Miletus, just to mention an handful), with a penchant for confluences of small tributaries.¹⁰ This position at the crossroads of overland routes and waterways

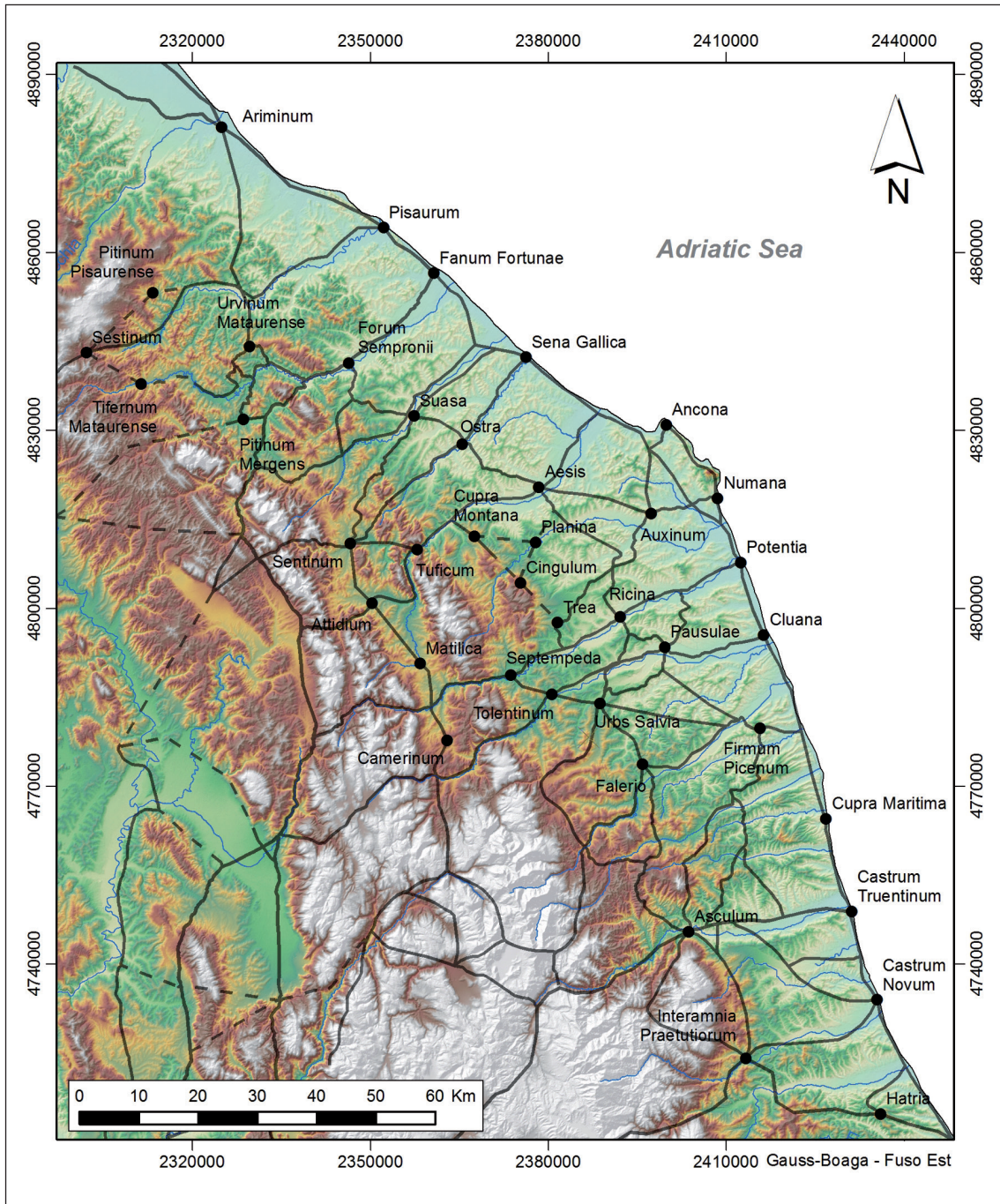


Fig. 1: The road network and its interconnection with towns in central Adriatic Italy.

turned these settlements into nodes, junctions and exchange points. Most frequently, these junctions were settled where there was a “breaking point”, for instance where the riverine navigation was no further possible, nearby confluences or at important crossings, position which ensures that settlement patterns can be explained by the layout of the watery environment.¹¹

Moreover, not only roads were necessary to convoy goods to harbours and ports from their production sites and to their final destination for use and consumption, but also – in some cases – paths and roads developed alongside a river, following their course and at the same time reinforcing their banks or making use of the earthworks that contained them.¹²

Indeed, as was well expressed by Koenraad Verboven, “riverine transport routes are as much man-made as roads”, since different sorts of infrastructure (ports, warehouses, tow-paths and roads to connect waterways to inland destinations) are necessary to make these routes accessible and functional.¹³ Obviously, the movement of large volumes of goods by river implies the construction or presence of ports, at the mouth and alongside the river. The harbours at the mouth are interchange nodes between land and seaward trade, and also works as storage spaces for merchandise that has to be transferred from large seagoing ships to boats of shallower draft (and vice versa). The inland ports are collection and clearing points for goods manufactured in the surrounding interior regions, that are further moved downstream to be distributed by seafarer trade, and at the same time are distribution spots for merchandise imported from remote areas that reached the marine harbours at the mouth.¹⁴

This infers that, besides private use and initiative, also public institutions were involved in the management of waterways and in the construction and maintenance of infrastructures. State initiative is actually confirmed by textual and material sources, but is less documented compared to overland traffic.¹⁵

The Ancient Sources

An early testimony of the integration between overland and waterway transport is offered by Horatius, who reported about his bad experience on the barge of the channel flanking the Appian Way (known as *Decennovium*), between *Forum Appi* and *Tarracina* (miles XLIII – LXII: *Hor. sat.* 1, 5).¹⁶ Indeed, regardless of the fact that a journey via waterways was generally cheaper and faster, in Antiquity there is a rich documentation on the fact that most travels implied both. A good example is provided by the journey of Piso from Greece to Rome, reported by Tacitus: landed in Ancona after sailing the Adriatic, he followed the Via Flaminia until Narni (the ancient *Narnia*), where he boarded on a boat and sailed along the rivers Nar and Tiber (*Tac. ann.* 3, 9).¹⁷

Strabo pinpoints the efficiency of the integration of water and land transport along the Rhone, where the river is paralleled by a *carriageway* (*Strab.* 4, 1, 14), and its tes-

timony is confirmed three centuries and a half later by Ausonius, who affirms that most rivers in *Gallia* were flanked by roads (Auson. *epist.* 18, 163–165; 25, 126. 127).¹⁸

In ancient sources, for instance, the idea that the water and land networks were deeply cohesive emerges with clarity, in the conceptual framework (e.g. the *Geographia* by Strabo)¹⁹ as well as in the practice of travel.

The State Bureau for the Management of Transportations

Integrated waterways and overland communication networks featured in the ancient itinerary sources, like the *Tabula Peutingeriana*: in the northern Adriatic, the link between *Septem Maria* and *Altinum* is represented by water-channels (*Tab.* III), and a line in red ink connecting Ostiglia to Ravenna is captioned as *Hostilia per Padum*.²⁰ Similarly, the icons placed in the Nile Delta confirm that in that large estuary there were infrastructures for assisting travellers and supporting trade.

Also in the *Itinerarium Antonini* we observe that the connection between Milan and the *limes* on the Rhine made use of ferries on the lakes of Como and Konstanz (Antonine Itinerary 278.3–279.1).

The mention of *traiecti* between the two shores of the Adriatic Sea in the same Itinerary²¹ has been automatically related to a special department of the *cursus publicus* devoted to sea transport, and allegedly to the fact that it managed its own (small) fleet.²² However, as pointed out in other occasions,²³ since there is no proof of any direct relationship between the itinerary sources and the state office, the only sure thing is the predictable existence of ferries.²⁴

On the contrary, in the 5th century AD, the testimony of Sidonius Apollinaris, travelling from Arles to Rome, confirms that – at least in the later phase – the route from Pavia (the Roman *Ticinum*) to Ravenna was covered by a *cursoria navis* (Sid. Apol. *epist.* 1, 5, 2: 467 AD; see Cassiod. *var.* 2, 31; 4, 45), where the interconnection between water and land was ensured through the Via Flaminia.

Other literary sources confirm that at least in a later phase, travel via (certain) rivers was integrated in the system of the state transport and that – as in overland travel and following the different chronology and geographic context – a combination of requisitions of provisions and supply, compulsory services and a permanent dotation of staff and means of transport underpinned the whole administrative machine.

In general, however, it is not clear to what extent the state office managed the traffic on waterways. For instance, apart the predictable use of the largest rivers of the Empire (substantially, the Nile and the Po), as already stressed above, sea crossing was not systematically integrated in the public management of transport, and overland routes appear to be favoured, even for cargo handling.²⁵

These considerations open the way to some remarks on the state office for the management of transfer of information and people, and its relationship with water transport.

The last twenty years have seen many changes of perspective in the wide study-field of transport in the Roman world. Some milestone studies have been carried out about the way in which transport and mobility were organised and managed by central and provincial governments.²⁶ These essays have finally disseminated the concept that the state office that we are accustomed to call *cursus publicus* – improperly translated as “postal service” – and that is generally described as an immutable and unbearable load on provincial citizens, was effectively a very flexible institution that is better defined as the Imperial transportation and communication system. At the same time, we should definitely dismiss the traditional vision of road-stations as “post-stages” classifiable as *mansiones* and *mutationes*.²⁷

Bearing in mind that the office in charge of handling the traffic of people and goods (and, of course, information) that circulated for official reasons, worked mainly as manager of the services provided by local communities in various types of infrastructure, we can take the further step. This means detaching the Imperial information and transportation system from the places where exchange, rest and stocking took place, and therefore considering these “places of the road” exclusively from the functional point of view.

Riverboats and Landing Places

When tackling the study of the riverine places, where it was possible to stopover and that functioned as hubs, we have to admit that archaeological evidence is less substantial than for the overland routes. Evidently this depends on some general factors – there were less navigable rivers than roads and on environmental dynamics, such as persistent alluvial activity and erosion bringing about changes in the configuration of rivers and land, and in some cases altered the shape of coastlines and deltas. River sediment has buried archaeological remains, and small river ports and wooden wharves of landing stages have completely disappeared from the record. Moreover the discovery of rivercrafts and barges is rarer than the one of shipwrecks from the sea, and finds are usually confined to sunken boats in completely silted palaeo-riverbeds, canals or lagoons.²⁸

Among the few available case studies from Roman Italy, a first example comes from the surroundings of Rome, in a place called Magliana Vecchia, midway between the mouth of the Tiber and the city centre, on the right bank of a dead bend of the river, not far from an ancient bridge and a lock. It is a river-port placed near the towpath along the Tiber (via Campana?), and well connected to a paved road partially excavated on the northern edge of the complex (fig. 2). The buildings, built in *opus reticulatum* and *incertum*, are displayed on the sides of a large paved yard. Some of these structures have been interpreted as warehouses, whereas, in other rooms, the presence of tubs and basins, in a later phase connected by a platform with a well, indicates that processing of

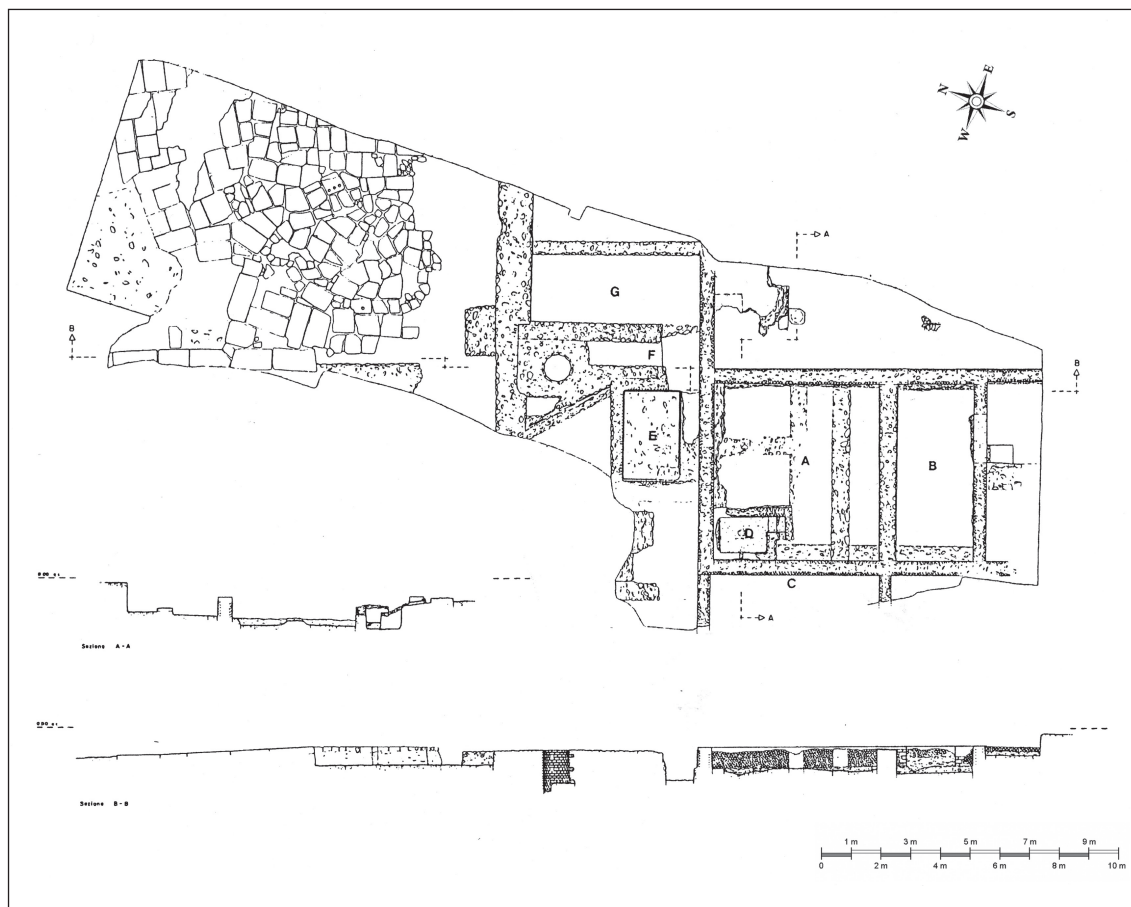


Fig. 2: Magliana Vecchia, Rome. Plan of the structures for landing along the Tiber.

agricultural products (oil or wine) was performed here. The construction of the buildings started in the 2nd century BC, and works were also done during the 1st century BC and the 2nd century AD, when the bridge was replaced. Occupation lasted until the 3rd century AD. Notwithstanding the fact that there is no evidence for proper quays or landing stages, the presence of the yard suggests that this complex functioned as marshalling and loading area.²⁹

The same uncertainty that shrouds the identification of many rural settlements as *villa* or *mansio*³⁰ casts the qualification of the complex of San Basilio (at Ariano Pole-sine, province of Rovigo) in *Venetia*. It is identified with the site captioned in the *Tabula* as *Hadriani* along the route that the emperor Claudius built as alternative to the *via Popilia* (fig. 3), connecting this place to *Altinum* (*Tab. III*). It was configured as a sparse settlement, without an urban character, but surrounded by *necropoleis*. One of the clusters was located on the banks of the “Po di Gori”, protected from the waters by a sandbar. It was composed of several buildings displayed around an open court. The site has been alternatively classified as *mansio* or *villa rustica*, given the presence of parts of thermal

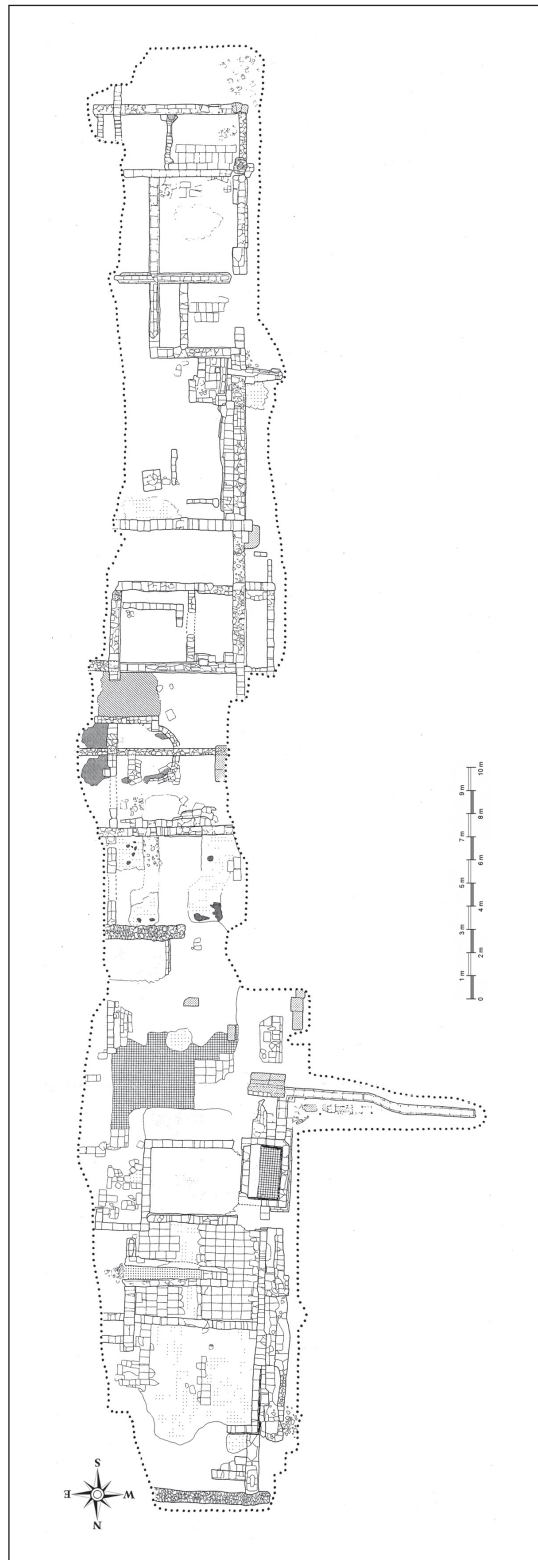


Fig. 3: S. Basilio, Ariano Polesine (Rovigo). Plan of the structures at the delta of the river Po (branch of the Po di Gori) identified with the remains of the settlement of *Hadriani*.

baths and of a river-port, the existence of which is proven by the two barges loaded with pink marble of Domegliara,³¹ found in the silted basin.

Along the same road connecting *Hadriani* to *Altinum* is another site, also showing how blurred is the divide between villa and road station, and how insufficient is a strict and simplified classification (fig. 4). The excavations at Corte Cavanella d'Adige (in Loreo, province of Rovigo) brought to light a complex that can be identified as a rural villa with landing. Installed on a coastal palaeo-sandbar, on the right bank of the river Adige, this site has been recognised as the stop of *Fossis*, pictured in the *Tabula*. Part of this complex (fig. 4, rooms 5–7, especially no. 6), overlooking a porticoed courtyard, had a residential function, whereas in the north-eastern sector, protected from the water by a wooden palisade, was a peculiar installation for water harvesting (fig. 4, no. 8). The whole complex was surrounded by a buttressed wall (fig. 4 A).³² The dock house, where a flat-bottomed boat was found,³³ was connected by means of an artificial canal to the main waterway. This complex was built between the Augustan age and the mid-1st century AD. In a second phase, starting in the mid-1st century AD, substantial renovation works were undertaken, probably as part of a larger programme of reorganisation of the communication network of the whole district. Abandonment at the end of the 3rd or the beginning of the 4th century AD was caused by flooding.

Already from this short review, it is clear that it is impossible to establish linear and simplified parameters to identify riverine complexes that worked as hubs and had a public attendance, and distinguish them from private landings connected to rural villas. Clearly, the tools of traditional archaeology are insufficient to frame the complexity of the matter, and correct answers cannot be given as long as we cannot formulate the proper questions and rephrase the scientific questionnaire.

For this reason, we should renew our approach adopting theoretical frameworks borrowed from other disciplines. Here, only the application of the tenet of “mobilities” will be discussed. It is a contemporary paradigm, which is focused on how movement (of people, things, and ideas) affects contemporary and past societies, and how those movements generate social implications.³⁴ Substantially, there is an arising acknowledgement of the role that mobility played in modelling societies in the past.³⁵ Mobility is tackled as material and immaterial phenomenon, and the objectives of the analysis are the cultural, political, and economic effects of mobility as well as the moving things and beings that generate these effects. The paradigm finds a perfect testing ground if applied to the analysis of communication networks during the Roman age, particularly if deployed for the study of the weight that roads and communication networks had not only in the conquest of the landscape, but also in the cultural change phenomenon and in the shaping of individuals and societies.³⁶

In this context, we would like to explore how the mobilities paradigm could profitably be used to frame the study of interconnected systems of transport, and specifically the hubs where this connection of overland routes and waterways materialised. These “exchange poles” can be defined as the nodes of a complex system, in which people,

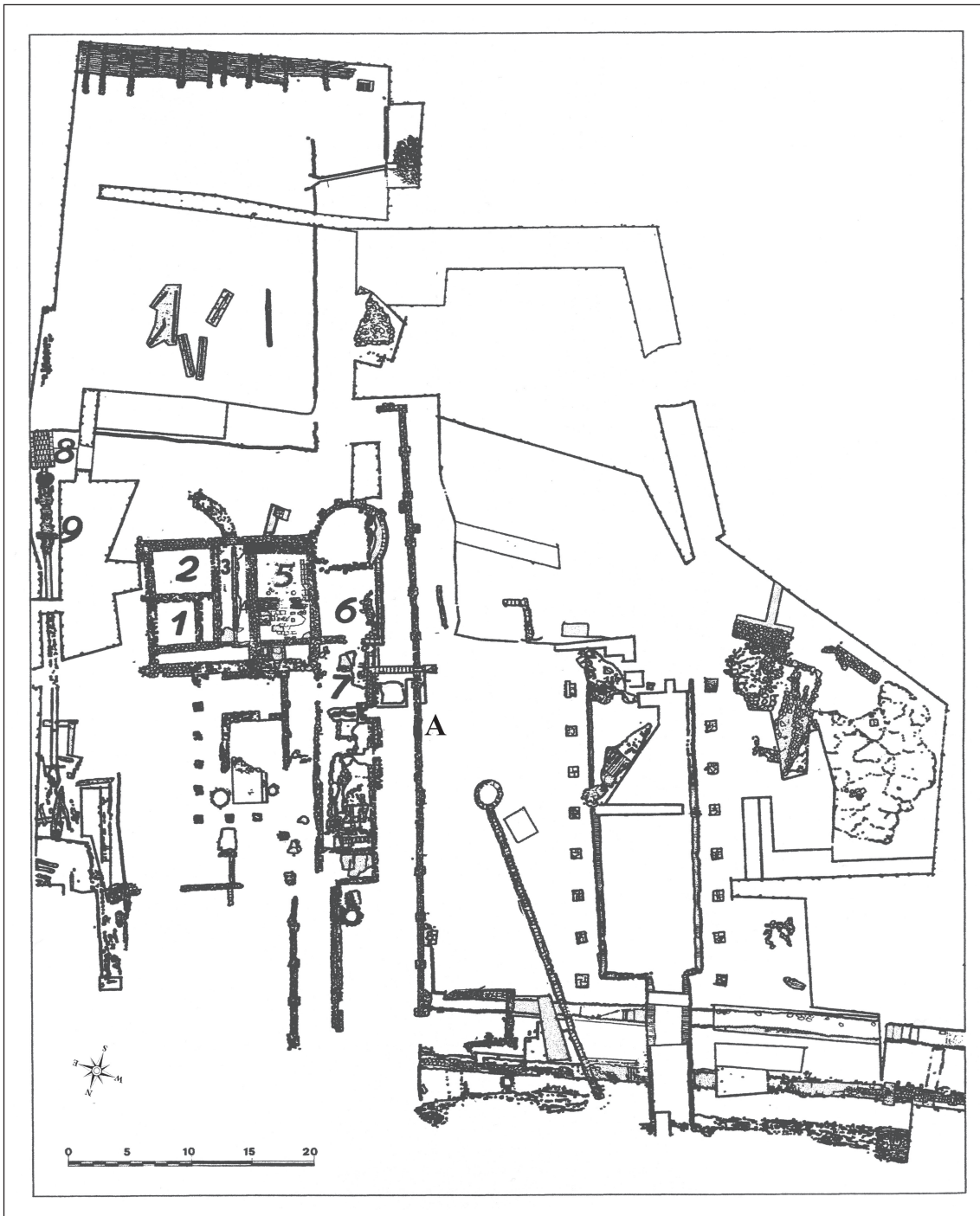


Fig. 4: Corte Cavanella d'Adige, Loreo (Rovigo). Plan of the structures of the settlement identified not far from the river Adige.

things, ideas, information, and culture are conveyed by means of communication networks.

Consequently, the distinction between villas, i.e. relatively complex settlements, which worked as production sites but also as poles for trade, and harbours or “public landings”, i.e. nodes for trade and exchange but also storing and distribution, would be meaningless, since all these settlements would play the same role as hubs for social encounters and economic exchange, functioning as transit areas for people and goods.

Conclusion: River Connections

Although riverine transport played an important role in ancient economy, it left very few traces, mostly when it was managed by small entrepreneurs on a local scale. The limits to waterborne trade, such as hydro-geographical factors, predictably affected the volume of traffic and related infrastructure. This scarcity of material evidence can also be attributed to the fact that, with a few exceptions, Roman centralised authorities made little effort to impose their control on waterways. Exceptions were especially related to the supply of military posts located along the Rhine and the Danube, even if the commercial character of the riverine traffic along other rivers of Gaul, Spain and Italy shows that rivers were used for movement of goods beyond the military *annona*.³⁷

The tenet of mobilities can enhance our study. Profitably applied to the analysis of how movement affected Roman society, it has good potential for a better understanding of the character and evolution of road- and river-stations and communication networks in Roman Italy.

This analysis highlights the role of the “nodes” in the integrated communication network. They are in the first place the towns, of course, but also small settlements play the pivot role of interconnection between water and road transport, fundamentally affecting the mobility or flow of people, goods and capitals. Towns, as well as the multitude of small agglomerations and hubs spread in between them, constitute together the nodes of active confrontation between land and river networks, at the same time functioning as areas for social encounters and representation.

Notes

¹ Finley 1973, 126. 127.

² Laurence 2009, 1.

³ Coulon 2007, 11.

⁴ Campbell 2012, 215–216.

⁵ Adams 2007, 3–16; Campbell 2012, 201–202.

⁶ Salway 2004, 96.

- ⁷ Vermeulen 2017, 109.
- ⁸ Campbell 2012, 201.
- ⁹ Franconi 2017, 14–16.
- ¹⁰ Campbell 2012, 297, with some examples from the Danube region.
- ¹¹ Chevallier 1997, 299.
- ¹² Campbell 2012, 201.
- ¹³ Verboven 2018, 200.
- ¹⁴ Campbell 2012, 202. It is worth noticing that often river-ports are not only interconnected with overland routes but also that breeding of pack animals is documented in their vicinity: Chevallier 1997, 299. 300.
- ¹⁵ Franconi 2017, 23–25.
- ¹⁶ See Strab. 5, 3, 6. An interesting reading of the passage of the *Satira* is offered by Francesca Diosono, who proposes that in the *viator* mentioned in the text we should identify the person in charge of the towing: Diosono 2009.
- ¹⁷ Chevallier 1997, 301.
- ¹⁸ Chevallier 1997, 299–301.
- ¹⁹ Chevallier 1997, 301.
- ²⁰ Levi – Levi 1967, 114–116.
- ²¹ Antonine Itinerary 317, 5. 6: “*A Brundisio traiectus Dyrrachium usque stadia ĪCCCC*”.
- ²² Crogiez 2001, 102.
- ²³ Corsi forthcoming.
- ²⁴ This reading can be extended to the transfer of dispatches across the channel: the fact that messengers were entitled to board any ship crossing the strait possibly demonstrates that there was not a state fleet devoted to such service (contrary to what is argued by Crogiez 2001, 102–104). Indeed, the fact that in the early Empire, at least along the Nile, the state office did not own a fleet is confirmed by a papyrus of M. Petronius Mamertinus, forbidding illegal requisitions of boats for the transport of officers and personalities (PSI V, 446; AD 133–136): Crogiez 2001, 101.
- ²⁵ Evidence can be found in the passage of Libanius who, failing to be awarded the right to make use of the *cursus publicus* to travel from his hometown Antioch to Athens, opted for the maritime route across the Aegean Sea, only as second fiddle: Libanius *orat.* 1, 14. See Lemcke 2016, 48. Further demonstration can be found in a decree by Theodosius (AD 386), who disposed that “breaking with old customs” linen and cloaks had to be transported with *angariae* or boats (*naves*) rather than by the traditional *redae*: Codex Theodosianus 8, 5, 48. See Lemcke 2016, 48.
- ²⁶ Di Paola 1999; Kolb 2000; Lemcke 2016.
- ²⁷ Corsi 2000.
- ²⁸ Campbell 2012, 33–34.
- ²⁹ Corsi 2000, 121. 122.
- ³⁰ Corsi 2020.
- ³¹ Corsi 2000, 160–161. The construction of the complex started in the 1st cent. BC and lasted until the mid-1st cent. AD, when a consistent reorganisation of the communication network in the area was undertaken by Claudius. Occupation lasted at least until the 5th/6th cent. AD, even if with caesurae due to flooding. Part of the finds are displayed at the Centro Turistico Culturale San Basilio.

³² Corsi 2000, 161. Materials from the excavations and the wreck of the boat are partially exposed in the National Archaeological Museum at Adria and in the Antiquarium of Loreo.

³³ The complexity of the hydrographic set of this region in Antiquity is proven by several finds of boats in the area: e.g. Fozzati 2009.

³⁴ Cresswell – Merriman 2011, 3–4.

³⁵ Sheller – Urry, 2006.

³⁶ Purcell 1990, 8. 23; Witcher 1998, 63.

³⁷ Campbell 2012, 328–329.

Image Credits

Fig. 1: Vermeulen 2017, 109. – Fig. 2: Corsi 2000, 271. – Fig. 3: Corsi 2000, 312. – Fig. 4: Corsi 2000, 313.

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