XVI.—Forerunners and Rivals of the Primitive Roman Bridge[1]

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This paper is summarized in the first paragraph of the Conclusion.

1. Beginnings of Trade along the Tiber

Before the river had thrust its long delta out from the shore, the mouth of the Tiber lay between the height of land just below

[1] To avoid controversy not pertinent to the question, the terms *Etruscan*, *Latin*, and *Sabine* are used in a geographical, not an ethnic sense. For purposes of this discussion, Etruscans are the dominant people of the Etruscan cities in the Orientalizing Period; Latins, the inhabitants of Latium in that and in the preceding period; Sabines, the neighbors of the Latins on the north and east. Bracketed numbers after place names refer to the map by Marian Rupert Holland. A shortened form has been adopted in the notes for the following works:

Anziani: Anziani, D., "Les voies romaines de l'Etrurie méridionale," *Mélanges d'archéologie et d'histoire des écoles françaises de Rome*, 33 (1913) 169–244.

Ashby: Ashby, Thomas, *a. The Roman Campagna in Classical Times*, New York, 1927. *b. Classical Topography of the Roman Campagna*, *PBSR* 1 (1902), 3 (1905), 4 (1907), 5 (1910). *c. La Via Tiberina e i Territori di Capena*, etc., *Atti della Pontif. Accademia, Memorie*, Series 3.1 (1924) 129–75. *d.* Ashby and Fell, "The Via Flaminia," *JRS* 11 (1921) 125–190.

Cozzo: Cozzo, G., *Il Luogo Primitivo di Roma*, Rome, 1935.

De Angelis d'Ossat: De Angelis d'Ossat, G., "L'Isola Tiberina è di Origine Alluvionale?" *Bollettino della Società Geografica Italiana*, Series 7.9, Anno 78 (1944) 73–89.

Dennis: Dennis, George, *Cities and Cemeteries of Etruria*, 3rd ed., London, 1883.

HJ: Jordan-Huelsen, *Topographie der Stadt Rom*, 1.3, Berlin, 1907.

Jordan: Jordan, H., *Topographie der Stadt Rom*, Berlin, 1871–1878.

Lanciani: Lanciani, R., *Ruins and Excavations of Ancient Rome*, Boston and New York, 1897.

Lugli: Lugli, G., *a. Roma Antica*, Rome, 1946. *b. I Monumenti Antichi di Roma e Suburbio*, 3 vols., Rome, 1924–38. *c.* "Recent Archaeological Discoveries in Rome and Italy," *JRS* 36 (1946) 1–17. *d.* "Les Débuts de la Romanité," *Eranos* 41 (1943) 8–27.

Nissen: Nissen, H., *Italische Landeskunde*, Berlin, 1883 (Vol. 1), 1902 (Vol. 2).

Pareti: Pareti, L., *La Tomba Regolini-Galassi*, Vatican City, 1947.

Platner-Ashby: Platner, Samuel Ball, *A Topographical Dictionary of Ancient Rome*, completed and revised by Thomas Ashby, London, 1929.

Säflund: Säflund, G., *Le Mura di Roma Repubblicana*, *Acta Instituti Romani Regni Sueciae*, 1 (1932).

Scott: Scott, Inez (Ryberg), *Early Roman Traditions in the Light of Archaeology*, *MAAR* 7 (1929).

Smith: Smith, Struthers Ancrum, *The Tiber and its Tributaries*, London, 1877.

Sundwall: Sundwall, J., *Zur Vorgeschichte Etruriens*, *Acta Acad. Åboensis*, (Åbo, 1932), no. 3.

Von Duhn: Von Duhn, F., *Italische Gräberkunde*, 1, Heidelberg, 1924.

the Fosso Galeria[2] and the corresponding hillocks of the opposite bank. We cannot gauge the rate of the shore's advance beyond that line, because silting has varied through the ages with natural and artificial changes in the channel, and with the deforestation of its upper reaches in historical times. However, with Augustan Ostia now three miles inland, it is not extravagant to conjecture that when men first frequented the region, they found the salt marshes only a short distance[3] beyond the outlet of the Galeria, where the backwater formed by the tributary provided a landing place.

The oldest known traces of man in the region of the Tiber marshes were found in the neighborhood of that landing on an estate called Malnome [33]. They were discovered early in the present century in the course of farming operations, and consist of unusually fine flint weapons from the cuprolithic period.[4] They suggest that the quest of salt, which opened trade relations in the valley, began early: that it antedated, in fact, the existence on the site of Rome of any habitations for which we have evidence at present.[5] Salt, easily obtained[6] on both sides of the river, formed the unique treasure of the lower valley,[7] the one commodity which was in continuous demand, was easily transported, and was not to be found nearer home by dwellers in the inland hills.

The flints of Malnome[8] include arrow heads of three different patterns and materials, a long thrusting weapon of almost rapier

[2] Name changed officially from former Galera. See Carte de la Plaine d'Ostie, in Carcopino, J., *Vergile et les Origines d'Ostie*, Paris, 1919.

[3] For attempted estimates, see Lanciani 9 f., Lugli *b.* 2.279; on the Tiber in general, Frosini, P., *Enciclopedia Italiana*, s.v. "Tevere" (1937), and Smith, on which Nissen 1.308–324 draws largely.

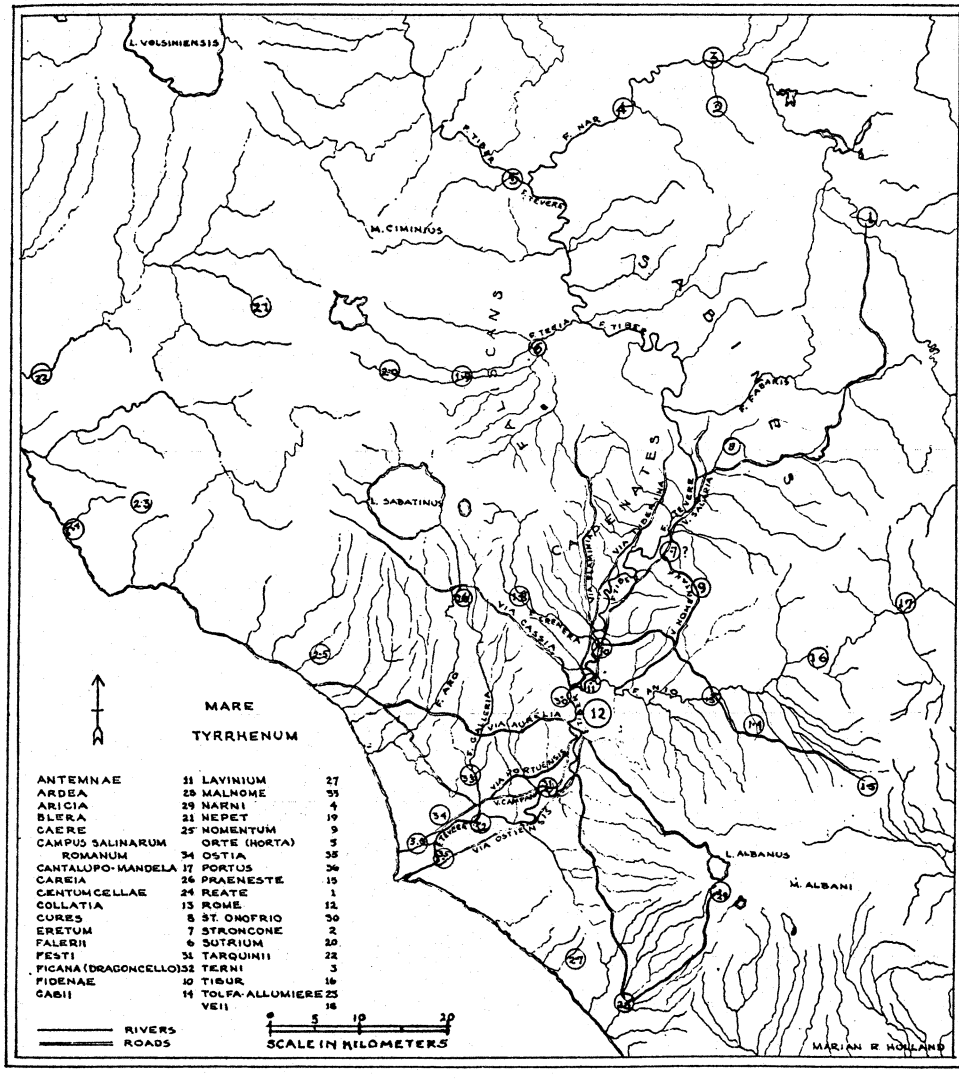
[4] Colini, *Bull. Pal. Ital.* 31 (1905), Series 4.1, 1–6 and plate 1.1–7; Rellini, *Il Lazio nella Preistoria d'Italia* (Roma, 1941) 17; Von Duhn 31 and map 2, no. 84.

[5] The swampy and isolated Roman site was against an early settlement. Cf. Homo, *Primitive Italy*, translated by Gordon Childe (New York, 1926) 76. Material from Roman graves cannot long antedate 800 B.C. See Von Duhn 431, Scott 25. "Neolithic Ligurians" of the Aventine (Homo, *loc. cit.*; Scullard, *History of the Roman World 753–146 B.C.* [London, 1935] 26) are entirely without archaeological support. Not a trace even of the Bronze Age appears on the Palatine (Rellini, *op. cit.* 29).

[6] For conditions favorable for extracting salt from sea water (low shore, long dry season, etc.), see "Saline Istriane," *Boll. Società Geograf. Italiana*, Series 7.2 (1937) 373–391. For an ancient description of the process at Volterra, cf. Rutilius Nam., *De Red.* 1.475–490.

[7] The importance of the salt trade is familiar, e.g. as the basis of the Hallstatt culture. For general discussion, see Blümner, *RE* s.v. "Salz." Pliny *NH* 31.77, says kings in India derived more revenue from it than from gold and pearls. On the Tiber salt works, see Nissen 1.107–109; Pareti 56; Ashby *a*.31.

[8] See above, note 4.



ANTEMNAE	11	LAVINIUM	27		
ARDEA	28	MALNOME	33		
ARICIA	29	NARNI	4		
BLERA	21	NEPET	19		
CAERE	25	NOMENTUM	9		
CAMPUS SALINARUM ROMANUM	34	ORTE (HORTA)	5		
		OSTIA	35		
CANTALUPO-MANDELA	17	PORTUS	36		
CAREIA	26	PRAENESTE	15		
CENTUMCELLAE	24	REATE	1		
COLLATIA	13	ROME	12		
CURES	8	ST. ONOFRIO	30		
ERETUM	7	STRONCONE	2		
FALERII	6	SUTRIUM	20		
FESTI	31	TARQUINII	22		
FICANA (DRAGONCELLO)	32	TERNI	3		
FIDENAE	10	TIBUR	16		
GABII	14	TOLFA-ALLUMIERE	23		
		VEII	18		

delicacy, and two knives or daggers, triangular in section, and with a pronounced rib along the center. The fact that some of these objects were broken in antiquity, as the state of the surface in fracture shows, has been taken as evidence that they were funeral offerings.[9] This assumption is possibly correct. However, there is no proof that they came from a burial, since some of the pieces are intact, and they were not accompanied by skeletal remains or by the pottery which usually occurs in the neolithic graves of central Italy.[10] It is at least as likely that the weapons, some of them broken in use, are relics of wandering hunters who had found in that locality a double attraction in the salt and in the game animals which came in search of it. Such early visitors were probably kinsmen of the cuprolithic people whose burial places are known in the valley of the Anio and other tributaries of the Tiber.[11] They could have taken advantage of the river's energy in a slow, but relatively effortless method of travel by drifting downstream on timber rafts. The rafts they would of necessity abandon at the journey's end, for the river as a highway was practicable only for one way traffic.[12] Its serpentine course and strong current made upstream navigation even more arduous than crossing the country on foot.[13] Landing places along the Tiber are so few and far between that it is not surprising to find the legends bearing out the

[9] Von Duhn 31.

[10] The report (note 4, above) may be incomplete, but seems more careful than usual for sporadic finds. Fragments of broken arrowheads and knives were scrupulously saved. The objects (if all in one place) may have been cached for future retouching for smaller tools. The yellow flint was imported, and the workmanship so fine that an attempt at salvage would be probable. For pottery from cuprolithic graves, cf. Colini, *op. cit.* (note 4 above), plate 1; Von Duhn 30; *Studi Etruschi* 16 (1942) 557–563, figs. 3, 5.

[11] For a cemetery of considerable extent at Cantalupo-Mandela [17] see Von Duhn 30; for burials at Stronconi [2] and Narni [4], *op. cit.* 32. Sporadic Stone Age traces at Antemnae [11] mentioned by Ashby *b*.3.15 perhaps indicate a way station between the Anio valley and the lower Tiber.

[12] In the late 19th century rafts continued to be so used and broken up at Rome (Smith 36, Nissen 1.318). Legends record such use of the river for transport of troops and provisions (Dion. Hal. 2.55.4; 10.14.2), grain for the city in time of scarcity (Livy 4.52.6), and building stone (Säflund 116). Since stone was floated out from Anio quarries in historical times (Strabo 5.3.7,11; Pliny *NH* 3.54), the tributary was navigable for rafts as far as the falls. It still would be so except in summer drought.

[13] See below, section 3 *c*. In the short distance between Fosso Galeria and Rome the river described six great loops and changed direction 21 times, almost doubling the distance by the Via Portuensis. One loop has now been eliminated by the Drizzagno di Spinaceto, opened in 1940 (Buongiorno, *Encic. Ital.*, App. 2, s.v. "Tevere," 944 e).

suggestion of the Malnome flints: the marshes of the *right* bank were those to which the people from upstream first became habituated.[14]

The current of the river, still swift and determined even in the level stretches near its mouth, sweeps small craft along the shore at other places, but not where the Galeria enters.[15] There the inevitable backwater, induced by the meeting of the currents, makes it easy for the boatman to put in at a little beach formed by the detritus of the smaller stream. The choice, once fixed by natural advantages of access, had a long-lasting effect, for traditionally, some of Rome's earliest quarrels with her neighbors were disputes over *salinae* on the far side of the river.[16] There seems good reason to believe that these formed the objective of the first land route along the valley, the trail originally used for the return journey by boatmen from points upstream.

Near the hill of Dragoncello,[17] the most probable location for a salt-workers' settlement on the left bank, there was no tributary to correspond with the Galeria, but otherwise conditions were similar. The Alban villages may have formed early connections there, since the region appears in the legends as under Latin control, and their comparatively easy approaches to it along the natural roads provided by ridges between streams,[18] made it a reasonable source for their salt supply. Communication between the south side of the river mouth and the Roman district, however, was hindered by

[14] See note 20 below; Beloch, *Röm. Geschichte* (Berlin, 1926) 146 f.; Platner-Ashby s.v. "Vicus Jugarius."

[15] Observations on navigation and landings are from the writer's experience on a trial trip by raft from Orte [5] to Fosso Galeria in the summer of 1949. A report is being prepared in collaboration with Dr. L. B. Holland, who was the navigator. River conditions assumed in this paper, unless otherwise noted, are for the dry season when primitive travel would probably be timed.

[16] Plutarch, *Romulus* 25.4; Dion. Hal. 2.55.5 f.; 3.41.3. Livy (7.19.8) speaks of Roman *salinae* being raided from Caere [25], and so doubtless still on the right bank in 354 B.C.

[17] Festus (s.v. "Puilia saxa," 298 L) locates Ficana [32] at the eleventh milestone of the Via Ostiensis. For identification with Dragoncello, see Huelsen, *RE* s.v. "Ficana." A ferry may have helped to keep an early settlement there (B. Tilly, *Vergil's Latium* 112 f., fig. 36). The river runs so hard in the straight stretch south from the Galeria that no attempt was made to land at Dragoncello in the expedition referred to in note 15 above.

[18] The connection is similar to that between the Alban Mount and Rome [12] or Antemnae [11]. See below page 295, and note 62. Coastal towns like Ardea [28] and Caere [25], with sea beaches of their own, would have no reason to travel to the Tiber salt beds until primitive methods were abandoned and wholesale manufacture became specialized there.

swamps and, higher upstream, by numerous rivulets. Consequently, the *salinae* of the left bank enter into the Roman stories later than the district across the river. Traders coming by water along the valley would naturally stop at the Fosso Galeria before reaching Dragoncello, which for them was like a shop on the wrong side of the street. So, though the little citadel of Dragoncello almost overhung the river, the salt beds there belonged in the circle of central Latium and turned their backs on the Tiber trade.

The continued use of *salinae* on the right bank by people from both sides of the river upstream was to have important consequences.[19] The marshes of the right side were favored not only by the primitive landing place, but by the accident that the easiest land route along the Tiber valley happened also to be on the right bank.[20] The Latian plain as a whole is tipped toward the Tiber and furrowed as if a giant rake had been drawn through its surface from the heights on the south and east. The numerous streams responsible for this erosion form more tributaries on the Roman side of the river.[21] It is generally agreed that the road now called the Via Tiberina, which follows the less broken ridges of the right bank, probably represents the primitive route along the valley at least as far as Orte. The natural path would run as close as possible to the edge of the high ground, where woods could not close it in on both sides to interfere with visibility and expose the wayfarer to hidden dangers from predatory human beings or wild beasts. For this reason the Via Campana (approximately the line of the modern railroad) seems to be a relic of an even older way below Rome than the more direct route of the Via Portuensis.[22] On the way upstream, after

[19] The problem of access to these *salinae* established the need for a crossing at Rome. See below, section 5. B. Tilly (*op. cit.* note 17 above) 13 assumes continuation of Via Salaria to salt beds of the left bank. Platner-Ashby sponsors first one bank and then the other, s.vv. "Salinae," "Via Campana," "Vicus Jugarius," but see Ashby *a.*245, 30 f.

[20] Ashby *a.*245, *d.*126; Almagià, *Encic. Ital.* s.v. "Roma," 29.590 d.

[21] At one time the volcanoes parallel to the coast of Latium and Etruria blocked the drainage of the region with material thrown out in their eruptions and ponded the Tiber and rivers which originally ran parallel with it to the sea. The water broke through along the fault where the present Tiber bed became established. On the left the Tiber receives the drainage from a wide section of Sabine and Latian hills, while on the right the watershed is much closer to the river. See Frosini, *op. cit.* note 3 above. For the effect of even a small tributary in interrupting a path along the river, see the excellent illustration in Cozzo fig. 37.

[22] On the Via Campana see Platner-Ashby s.v. and Huelsen, *Ephem. Epigraph.* 8 (1899) 342 note 2. Livy (9.2.6–8) describes as a preamble to the Caudine disaster alternate routes, one open and safe, but longer: "altera . . . patens apertaque sed

skirting the long ridges of the Janiculum and Monte Mario, the road would return more closely to the river, and correspond to the line which the Via Flaminia and the Via Tiberina draw all along the valley, with tributary paths like Veii's Cremera road [18] entering it in many places.[23] The early peoples of the Umbrian and Sabine hills would obviously cross where their difficulties would be least serious, as far upstream as possible.[24] To approach the places which offered easiest access to the better route of the opposite side, they would make use of local roads on the left bank, and so begin the development of the historical Via Salaria.

Since salt gathering by primitive methods could proceed only in the dry season, early expeditions from hills to sea would take place when the water in the streams was low.[25] At such times the tributaries, as far as their volume was concerned, would present little difficulty. However, the gullies they have carved through the soft surface of the plain are always obstacles, by reason of the height and steepness of their sides, and the forbidding growth of brambles by which they are infested. So the minor streams, which befriended the boatman on the way down the river, would balance the account by impeding his return along the road.[26]

Use would wear a track to the best crossing points over the ravines. At some of them a bridge would be essential except for unencumbered pedestrians who could use both hands and feet in

quanto tutior erat tanto fere longior, altera per ferculas Caudinas, brevior. . . . Saltus duo alti angusti silvosique sunt montibus circa perpetuis inter se iuncti." Any well-trodden way in early times would be *patens apertaque*. For the general question of visibility see pages 306, 309, 314 below.

[23] An important branch ran along the Treia into the heart of the Faliscan district (Ashby *d*.126). On the left bank, roads fanning out from the neighborhood of Passo Corese linked Cures [8] and other mountain towns with the Tiber road (Ashby *b*.1.33 f.; *c*. plate 36). Above that region the main line of travel was perhaps on the left bank with frequent ferries to the other side. See page 308 below. Cf. Cozzo 46, where, however, the name of Passo Corese is explained by the Tiber crossing, though it really refers to the bridge carrying the Via Salaria across the Fosso Corese (cf. Ponte Galeria which is similarly named from an old bridge across a minor stream).

[24] Umbrians probably crossed at Otricoli, Sabines below Nazzano (Ashby *a*.245, *d*.126). From the Cures district it was expedient to go north from the Corese to a crossing point opposite Fiano Romano where the road comes closer to the river on the right bank.

[25] Interference of winter weather even in times of more developed communications is implied in Livy 10.25.10 (295 B.C.): Fiebant autem itinera quanta fieri sinebat hiemps hauddum exacta.

[26] See note 21 above, and photographs in B. Tilly, *op. cit.* note 17 above, figs. 26, 27, for deep cuttings typical of Campagna streams. For elaborate Roman engineering to carry the Via Flamina over the Treia see Ashby *d*.158.

climbing. The land route, however, would certainly be preferred for travel in both directions as soon as a track practicable for carts, or even for pack animals, had been established, for the windings of the river make a tedious increase in the distance. Travel by raft proceeds at an average speed about equal to a walking pace: so a pedestrian, using the more direct route on the road above the bank, would reach the objective in much less time than a boatman.

The slow rate of river travel necessitates breaks in the journey, since progress at night is not feasible along a channel which oscillates between the two banks, and is impeded by occasional rapids or snags of dead trees in the stream. An expedition to the marshes from the junction of the Nar and the Tiber (the upper limit of summer navigation by raft) would consume about five days, even with the help of the current.[27] The stopping places would be determined by the tributaries where conditions paralleled those at the Galeria.[28] Elsewhere, beyond a narrow border of sucking mud at the water's edge, the banks were doubtless as steep, slippery, and thickly overgrown with willows, reeds and brambles as they are today. It is significant that at the site of Rome, though stone embankments and paved streets have long concealed them, there were three or more tributaries.[29] A day's journey from Eretum brought the legendary Valerius[30] and his sick children to the first of them in the Campus Martius. There he is said to have landed and found a spring of healing water. The other streams would create landings just above the island and below the Forum Boarium near the Aventine. The help of backwaters would be more urgently needed under primitive conditions, when the current at the city was not checked by the piers of the numerous bridges which now break its impetus.[31] The *portus* of historical Rome, where freight

[27] From Eretum [7], a little above Monte Rotondo, to Rome takes about 12 hours, and from Rome to the marshes most of a day. This schedule depends on rowing only to keep in the channel, and traveling at the speed of the current.

[28] See page 284 above.

[29] In the Campus Martius and in the valleys of the Velabrum and the Circus Maximus. Cf. Lanciani fig. 1 and a map differing in some details in Lugli *b*.2 plate 4. For variety of opinion on the course of the streams, see Platner-Ashby, s.v. "Petronia amnis"; Castagnoli, "Il Campo Marzio nell' Antichità," Memorie, *Atti dell'Accad. Nazionale dei Lincei*, Ser. 8.1 (1941) 119, and fig. 1.

[30] Val. Max. 2.4.5. As Richter (*Hermes* 17 [1882] 425) argues in connection with the legend of the Fabii, the topographical background of such stories reflects actual conditions, even when the events are far from historical.

[31] There are now 12 bridges between the Pons Mulvius and the island. The most recent has been built in a single span to avoid still further interference with the current by piers in the channel.

from Ostia was unloaded, was near the downstream landing. Traders from upstream would prefer to stop near the Capitol to avoid maneuvering their rafts through the rapid water at the island.[32]

2. Communications in the Early Iron Age

Since the Iron Age inhabitants of the inland regions probably began by following ways already broken through the wilderness by their predecessors, they may have become familiar with the site of Rome first as a resting place on the river journey. Transient visits would prepare the way for their early infiltration into the community of shepherds who had settled there as colonists from the Alban Hills.[33]

In the days of Rome's beginnings the valley was thinly populated, and except for small shepherd villages at Antemnae, and possibly Fidenae, there were no other towns directly on the Tiber bank. Yet custom and intertribal agreement may already have set aside special places for the uses of the wayfaring stranger. Their proximity to landings suggests such a function for some of the sacred groves recorded in literature and in inscriptions.[34] Within an open-air sanctuary, the limits of which were defined by some outward and visible sign, merchants and their goods would

[32] See Jordan 1.1.435; Platner-Ashby svv. "Emporium," "Portunium." Cf. *Navale inferius* in Lugli *a*.576. The story in Dion. Hal. 10.14.2 seems to involve the use of the upper landing, from which the Capitol was less than a stade distant.

[33] Scott 46. See page 292 below. Infiltration in successive waves began earlier in Roman than in Alban villages (Von Duhn 393), — because it came by way of the Tiber?

[34] The festival of the *Lucaria* (Paul. Fest. s.v., 106 L) took place in a grove "inter viam Salariam et Tiberim." See note 36 below for the grove of the Arval Brethren at Festi [31]. Roman pontifices offered sacrifice in the grove of Helernus near the Tiber (Ovid, *Fasti* 2.67 f., 6.104 f.). Groves along roads may have had a similar origin as protected stopping places. Frazer (*Fasti of Ovid* [London, 1929] 2.68) quotes a passage on the protection of fairs by "powerful earth gods or other spirits, who prevented them from becoming the scenes of vendetta tragedies or from degenerating into pitched battles." Groves of Feronia, especially the famous one in the Capenate district (L. R. Taylor, *JRS* 10 [1920] 36), by offering shelter to traders on the road grew into places for important fairs. Breaking the peace in one was cause for war (Dion. Hal. 3.32). Feronia appears in several locations (L. R. Taylor, *loc. cit.* and *Local Cults in Etruria* [Rome, 1923] 49 ff.), including a stop on the Appian Way mentioned by Horace (*Sat.* 1.5.24). The grove of Furrina on the Janiculum must have been on the road from the Pons Sublicius, since Gracchus fled there from the bridge (Savage, *MAAR* 17 [1940] 35). Servius (*ad Aen.* 3.302) calls groves the abode of the Lares *viales*, a significant epithet.

be unmolested.[35] The grove of the Arval Brethren on the Via Campana is a case in point:[36] there beside a tributary landing was a wooded knoll close to the water, but lifted above it. Also the so-called Asylum of Romulus[37] on the Capitoline may have served as a refuge for travelers along the valley, since it was situated on a height above a landing, and comfortably separated from the permanent residents on the Palatine by a perennial brook in the Forum valley. Only under some guarantee of security could commercial exchange exist, as it apparently did among the communities along the valley of the Tiber.[38]

It is significant that these Iron Age communities did not grow up on the river banks, even where excellent sites were available, as at the mouth of the Farfarus (or Fabaris), or of the Fosso Corese. The withdrawal from the Tiber is one indication that the water highway could not compete with land routes. Veientine, Faliscan, Capenate, and Sabine centers were all set some miles back from the river.[39] The only towns along the lower Tiber which survived the most remote legendary period were Rome [12] and Fidenae [10], both crossing points.

The cremating people who settled Etruria and Latium in the first Iron Age had sought out easily defended refuges within reach of good land for grazing and tillage. The country abounded in such locations, since the omnipresent streams in their work of erosion had carved out at their confluences natural citadels isolated between ravines. In some places, as at Narce and in the Alban Hills, a cluster of settlements developed on neighboring heights. A pros-

[35] The sanctity of groves was in general respected. Cf. Herod. 4.19; 5.119; 6.75, 78; 9.65. On capital punishment for violations, see Paul. Fest. (s.v. "*Capitalis lucus*," 57.24 L). If groves were travelers' rests, it is appropriate (*Aen.* 7.29) for Aeneas while still at sea to behold in the distance the grove at the Tiber's mouth as the symbol of *certae sedes* after his wanderings.

[36] Located by Strabo (5.3.2) between the fifth and sixth milestones. A plan in *Ephem. Epigraph.* 8 (1889), fig. on page 341, shows its relation to Tiber, tributary, and road.

[37] Platner-Ashby s.v. "Asylum." The Sabine god Veiovis whose temple still stands at the place of the Asylum (Lugli *a*.40, *c*.4 f. with plan) is also associated with the island (M. Hirst, *PBSR* 14 [1938] 150) which might have been a still earlier stopping place if its prehistoric condition permitted such uses. See the important discussion of the island in De Angelis d'Ossat.

[38] Pallottino, *Studi Etruschi* 13 (1939) 120; Scott 30; Von Duhn 422, 430, 598. For material from Nazzano closely resembling Capenate and Roman, *Not. Scavi* 1911, 440.

[39] Cozzo 44 f. calls Cures [8] a "stazione fluviale," but it is situated seven or eight kilometers away from the river on a steep hill.

perous concentration of this kind[40] appeared at Veii [18] to which settlers moved down the valleys from the Bracciano region. They found a livelihood in the rich land they dominated, and shared at need the same natural fortress. Dionysius (2.54, 12.15) waxes eloquent in praise of the location,[41] and the Romans are said to have been tempted by it to leave their own sacred soil after the Gallic disaster (Livy 5.24). From the citadel of the Piazza d'Armi, which with its adjacent heights completely blockaded the upper end of their glen, the Veientines looked toward the southeast along their domain. High, wooded ridges on both sides made a walled garden of their fields and pastures, through which even in summer the Cremera flowed with good volume from its generous springs. The entrance into that land of any stranger, hostile or friendly, could not escape the notice of its proprietors, whose fortunate security was reflected in their numbers, rather than in luxurious possessions.[42] At an early stage of its history, Veii shows a fusion with inhuming people such as those who penetrated into Latium at the same time, probably by way of the Tiber roads on both sides of the river.[43] Veii's outlet was by the Cremera, for surely the inhabitants would have turned aside from the forested hills, which barricaded them in the direction of Rome, to follow the clearly

[40] Bryan, *Italic Hut Urns and Hut Urn Cemeteries* (Papers and Monographs, American Acad. Rome, 4 [1925]), 151 f. for Alban villages; L. Banti, *Encic. Ital.* s.v. "Veio"; Sundwall 80; Scott 20.

[41] For description of the site, see Dennis 1.5 f. The writer thanks Dr. Bertha Tilly for help in exploring the Cremera valley in August, 1949.

[42] For the large number of graves, see Sundwall 81; Giglioli, *Not. Scavi* 1930, 67 f.; Randall-MacIver, *Villanovans and Early Etruscans*, Appendix C, 269 f. The objects in the earliest graves reflect a simple scale of living in the peasant style of the Italici. Cf. Pareti 13.

[43] Von Duhn 368 f. notes that Faliscan cremation graves are away from the Tiber toward the west, while the strongest inhuming element is in places more accessible from the valley roads. For progress westward of the inhuming rite, see Sundwall 167; Colini, *Not. Scavi* 1914, 361. The change reaches Veii before the coast (Sundwall 93). Variants of an opposing theory are put forward by Säflund (*St. Etr.* 12 [1938] 27), Pareti 5, and others. They contend that inhumation was the original Italic rite, and that graves of that type are older than cremation tombs on sites where the two are mixed from an early period. Their hypotheses deserve thoughtful consideration but the question of the physical relation of the two types seems against them. Inhumation graves of the Forum break into cremation pits in such a way as to prove the priority of the latter (Scott 25 f., 36). The poor and conservative contents of the graves can not be dated accurately enough to override such evidence. Detailed study of many sites is needed to determine the question. Though much material has already been destroyed, the large Sabine area still unexplored may yield the answer to excavators with modern techniques.

marked natural track[44] where their own stream opened before them a beckoning vista to the Tiber and the lands beyond it. By the Tiber itself, or by the road on the right bank, they could easily reach the salt marshes near the sea, and according to the legends, they came early into conflict there with Romans who frequented the same source of supply. The later descents of the Veientines on the shore may have made use of an obvious short cut along the Galeria, the sources of which are on the watershed just west of Veii. Such a route would lead them northwest of Rome and at some distance from that site. The common characteristics in the customs and possessions of Rome and Veii after both had adopted inhumation are probably due to their common participation in the traffic along the Tiber valley, rather than to direct exchange between them.

With the coast cities of Etruria, on the other hand, Veii's contacts began in her earliest days and continued throughout her history. Caere [25], Vulci, and especially Tarquinii [22] were all in touch with her,[45] though the ways were devious by which journeys were accomplished through the difficult country separating the Cremera valley from those places.[46] It is axiomatic that in primitive communication, the earliest roads, even at the expense of long detours, followed ridges between streams instead of cutting across them. Ashby insists repeatedly upon this point in all his Campagna explorations. The district here in question he describes as "furrowed deeply by streams running southward through large ravines, difficult of access, and sparsely populated even in ancient times."[47] The country is still unusually well wooded, and in antiquity must have abounded in those *saltus impeditos* which Livy (9.19,16) counts among the worst of obstacles. Even where the ancestors of the present oaks and chestnuts were lacking, the mixed, bushy growth, characteristic of all Italian bottom lands and gullies where

[44] Ashby *b*.3.25; Richter, *op. cit.* (above note 30) 437 f. where there is a vivid picture of the terrain between Veii and the Tiber.

[45] Giglioli, *op. cit.* (note 42 above) 340; Sundwall 84 f.; Pallottino, *loc. cit.* (note 38 above). Important material in the Villa Giulia Museum is still unpublished.

[46] Anziani 231 makes a good case for Caere's connection with the Tiber above Rome on the road which passed through Veii and along the Cremera (234). From Tarquinii [22] he traces an old road through Blera [21] north of Bracciano.

[47] Ashby *a*.226. Existing roads between Praeneste [15] and the Anio illustrate this point. Cf. Strabo 5.3.8. By way of contrast with the primitive system cf. the causeway of the Roman Via Flaminia illustrated in Ashby *d*. fig. 11. The nature of the country forced the Romans to become good highway engineers.

moisture exists, in untended tracts would form impenetrable thorny thickets.[48] So it was probably by very ancient trails connecting the high ground both north and south of the lake of Bracciano (Lacus Sabatinus) with the main direction of the ridges, that occasional traffic between village and village preserved a fairly uniform culture pattern through all the region south of the Ciminian forest. Even today on fine modern highways, one drives from Caere to Veii by going northeast almost to Bracciano, and then by a sharp turn to the southeast along the ridges toward the Via Clodia and the Veientine district. The route thus describes a generous loop to the north to avoid a sort of hurdle race across the parallel ravines which lie between Caere and Veii. The shorter way through Careiae (Sta. Maria di Galera) [26], which Anziani takes to be primitive,[49] is probably ancient, but not in use before the Etruscan period. The more natural route, and one still followed by country cart-tracks, is through the neighborhood of Bracciano and Anguillara, beyond which roads from Tarquinii and other points north of the lake also join the way to Veii along the ridges between streams.

Ways leading northward from Veii into the Capenate and Faliscan territory are not difficult except for inconveniently steep grades in some places. Connections, always close, with those regions[50] were probably maintained directly by the hill roads rather than by the Via Tiberina. Help from her northern neighbors supported Veii in her final contest with Rome (Livy 5.8.4–6; 5.13.9 f.; 5.17.6 f.).

Primitive Rome began by following the pattern of other pioneer villages of the Italici, even including the early and apparently peaceful intrusion of an inhuming element.[51] The Roman location could offer convincing advantages to straggling bands of shepherds from the Alban highlands. Fresh pasturage and springs of good water were available there even in the driest season. It may well be, as some have suggested, that the first trial of the site was as a

[48] Forests are a serious barrier. Cf. the evil reputation of the Ciminian (Livy 9.36–39). For difficulties of penetration into the thickly wooded country of Cisalpine Gaul, see Cary, *Geographical Background of Greek and Roman History* (Oxford, 1949) 115.

[49] Anziani 231. For the complicated network of little ravines in the Tolfa-Allumiere region [23] and the roads resulting from them, see the useful study of Bastienelli, *St. Etr.* 16 (1942) 229 f., especially fig. 1 facing page 232, which shows routes to Tarquinii, Blera, and Caere.

[50] Von Duhn 391; Pallottino, *loc. cit.* note 38 above. Capena is called a colony of Veii (Cato in Servius *ad Aen.* 7.697).

[51] Von Duhn 429 (Rome), 368 f. (Faliscans); Sundwall 82 (Veii); Scott 29.

temporary encampment used for only part of the year.[52] The precipitous butte of the Palatine, which rose almost an island from the surrounding brooks and marshes,[53] promised a safe refuge from wolves and human raiders. The circuit was too big to defend easily from an organized attack, but with a little labor the cliffs could be made even more forbidding, and the one easy approach blocked by a stockade.[54] Behind that barrier the flocks and herds could return to shelter at night after pasturing in the open all day, with the brooks on the boundaries to help in keeping goats and swine, at any rate, from straying far. Since the people were primarily herders,[55] the area of the hilltop[56] was sufficient for their small patches of beans and spelt. Its trees would furnish fuel as well as pliant saplings for frames of huts to be thatched with marsh plants from the rank growth along the streams below. There was little need of commerce in a poor and isolated village which, like those of their Alban kinsmen, was almost self-sufficient. However, occasional travelers on the right bank would make a link with other centers. There would, besides, be further opportunities for exchange in the gatherings appointed by religion at such places as the groves of Feronia, or at the ancestral shrine on the Alban Mount, a conspicuous landmark to the southeast, and distant less than a day's walk across the downs. On such visits they could barter surplus animals, hides, or cheeses for the ornaments which are always prized, or for implements useful for both peace and war. They had no mines, no craftsman's skill, to lure traders to a settlement so difficult of access from almost every direction. The early graves of Latium seem strikingly humble in their rough, home-made

[52] Homo, *op. cit.* (note 5 above) 78. For parallels in modern Italy, Dennis 1.17 f.; Lanciani 130 and figs. 45, 50; Ashby *b*.1.190 with fig. 12.

[53] Lugli *a*.397 f.; Propertius 4.9.2–5; Ovid, *Fasti* 1.241–44.

[54] Bailey's statement (*Phases in the Religion of Ancient Rome* [Berkeley, Calif. 1932] 109) that detached farms preceded village groups is counter to tradition which supports the existence of numerous *castella* on defensible heights. To these the country people could retire during the frequent enemy raids (page 299 below and note 78). Farmers drove their cattle far afield and cultivated scattered plots, but returned to villages at night. For a similar practice in modern Latium, see Tilly, *op. cit.* (note 17 above) 55. The defensive importance of the Palatine site is sometimes exaggerated (cf. Homo, *op. cit.* [note 5 above] 79). It was too far out of the world in its first days to have a military value to Latium in general.

[55] Lugli *a*.399. The cult of Jupiter Latiaris reflects this way of life and traditions are consistent with it.

[56] Cary, *op. cit.* (note 48 above) 131 estimates 25 acres. A place called *Vacci prata* on the Palatine suggests open spaces (Livy 8.19.4).

pottery and dearth of metals.[57] They still indicate simple, frontier conditions when their neighbors along the highways of trade were beginning to buy imported luxuries. Their choice of a location on the Palatine suggests a desire for isolated security rather than for convenient communications. Only complete indifference to the Tiber crossing at the island can explain their failure to occupy the Capitoline, which is the nearest hill to the island and dominates all approaches to it from the Roman side.

There is nothing inherently improbable in the story that the so-called men of Romulus settled the Palatine from Alba[58] at some time near the legendary 753 B.C. or half a century earlier. There is no evidence for the exact date of their coming, or for the interval between the beginnings of their village and their first connections with other groups of habitations on the Esquiline. In that direction they would naturally expand, and some bond of unity between the places enclosed by the Velabrum and Circus brooks is evident in the list of communities which shared the festival of the Septimontium.[59]

3. The First Roads to Rome

a. The Via Aurelia

The time at which a ferry or bridge began to be used at Rome, and the reasons for its use are of primary importance in the history of communications on the Tyrrhenian side of the peninsula. The current trend is to attribute Rome's rapid rise to her natural advantage in the possession of an island in midstream. Without roads to it on both sides, however, the island is unimportant, for obviously a crossing can not exist without approaches.[60]

[57] For lack of communication between early Rome and other places, see Strabo 5.3.2,4. Cf. De Angelis d'Ossat 88; Pareti 13; Scott 24 for lack of metals. Cf. Ashby *a.* Introduction 16: "Unless one happens to be going along a ridge one's course is continually up and down." Tilly, *op. cit.* (note 17 above) 67 reports as running into the sea between Ostia and Antium "some half dozen streams . . . with beds narrow and deeply cut with steeply sloping sides." Beads, scarabs, etc. in later Roman graves probably came down the valley with the salt trade from districts upstream which had contact with importing centers through Veii [18], or through Blera [21] and Sutrium [20] with Tarquinii [22]. Cf. Sundwall 82–84 and note 38 above.

[58] Von Duhn 391; Scott 13 f., 21–25, 46.

[59] For the meaning of the term, see Platner-Ashby s.vv. "Septimontium," "Succusa," "Regiones quattuor"; Säflund 164; Lugli *a.*399 (with topographically convincing exclusion of the Caelian). The word is here used for the geographical unit included between the brooks of the Forum and Circus valleys (Lugli *b.*2, plate 4).

[60] Lugli *b.*3.620; De Angelis d'Ossat 88; Cozzo 189. The island as the original crossing is topographically probable, but the evidence for the historical Pons Sublicius

On the Latian side the approach is quickly recognized, since from the direction of the Alban Mount, Rome is easily accessible. The course of the Via Appia for its first twelve miles presents a minimum of engineering problems. It follows in large part a tongue of lava which flowed from the Alban volcano toward the Tiber and provided a natural road from the hill towns to Rome or Antemnae. The similarity of the eighth century material discovered on those sites indicates a connection between them as close as the map would suggest.[61] The casual passing to and fro which is implicit in the legend of Romulus and Remus[62] accords with the facts. Geographically this old trail might supply one link in a great trade route by which metal, raw or manufactured, was conveyed from the mines of Etruria to Campania. It is plausible that the dangers of transport by sea would encourage the early development of an overland route to markets which were becoming more and more profitable with the expansion of trade in the western Mediterranean.[63] However, there are objections to assuming that the Roman crossing formed part of such a route in very primitive times.

The negative argument that we lack traces of important commercial connections along the Rome-Alba road might be dismissed as an example of the dangerous *argumentum ex silentio*, but geographical conditions in southern Etruria can not so easily be set aside. On that side of the river, no road parallel to the coast is convincing as a primitive route. Caere is the nearest of the Etruscan cities in that direction, and it is from there that Pareti, Cozzo, and others would bring an ancient road, on the line of the Via Aurelia, to the Roman crossing.[64] The Caeretans, however, could not reach the Tiber bank by flying on a wishing carpet: they were obliged to travel on the ground, "leg over leg, as the dog went to Dover" in the old nursery rhyme. Geologically, a landscape can change considerably in two and a half millennia, but in that tract of Etruria the changes must have been in the direction of decreasing the difficulties by widening the ravines and softening the contours.

in the Forum Boarium raises a difficult question. This will be discussed in a forthcoming book on *Janus*.

[61] Von Duhn 391; *Not. Scavi* 1886, 24; 1887, 64–68; Scott 46.

[62] Dion. Hal. 1.79.9; Livy 1.4.4 f.

[63] Cozzo 59; Pareti 54.

[64] Pareti 53 f., 64; Cozzo 8 f., 52; Romanelli, *Capitolium* 24 (1949) 61. Such a road was the result of the Roman crossing rather than the cause. Conditions Dennis (2.238) describes between Telamon and Orbetello continue along the coast south of Caere.

The chances are that it was worse rather than better in the times when we are asked to imagine primitive traders with their ingots of metal, making their way through a forested country by climbing in and out of a succession of gullies, or else constructing literally dozens of bridges. The distance from Caere to Rome is a great one for those to whom, as Propertius says (4.1.36), it was a long journey from Rome to Fidenae. Cozzo's estimate (*op. cit.* [note 1] 186) of fifty kilometers as a day's journey for ox carts is optimistic, and seems based rather on the known mileage between cities than on experience of the "unhasting stride" of oxen on the road. Horace (*Sat.* 1.5), traveling on an improved highway in 37 B.C., by various types of conveyance, averaged hardly more than half that record. Breaks in a journey were naturally spaced at intervals incredibly short according to modern standards, and would often be determined rather by local conditions than by absolute distance. A good stopping place in any age will induce a traveler to push on beyond the limits of convenience, or to cut short his day before he has reached his maximum mileage. Wherever a bridge or ferry was located, there people must have been to maintain it, and incidentally to furnish food or shelter, or a change of horses in later times. Two such *mutationes*[65] were located on two different Roman roads (the Aurelia and the Cassia). Their existence is evidence for the necessity of breaking the journey through southern Etruria even in imperial times. To cover the same space in the eighth century B.C. would surely have meant several days of strenuous exertion, because of natural difficulties already mentioned. These would be more discouraging than the mileage, as the study of a large scale contour map, or a thoughtful reading of Dennis or Ashby, clearly demonstrates.[66]

A strip along the coast from one to four or five miles in width is flat and swampy. The first higher ground breaks into irregular little hills. North and east of that fringe stretches an undulating

[65] Both were of little importance. Careiae [26] (Bendinelli, *Encic. Ital.* s.v. "Careia"; Nissen 2.354; Ashby *a*.234) was unmentioned before the empire; Fregenae (Weiss in *RE*, s.v.) is the only place listed by Strabo (5.2.8) along the coast between the ports of Caere and Ostia, for which it seems to be a halfway house. Lorium is a similar stop on the Via Aurelia between Caere and Rome. Cuntz (*Antonini Augusti itineraria provinciarum* [Leipzig, 1929] 44 f.) gives the imperial road stations in this district (Itinerary numbers 289–301). See also Nissen 2.351.

[66] Dennis *passim*, especially 1.131 f., 488; Ashby *a*.134, 226 f., etc. The air photographs, made during World War II and available in the library of the British School in Rome, are the most convincing evidence.

plain which rises at some points to an elevation of five or six hundred feet above sea level. Its soft volcanic stone has been deeply etched in a complicated network of gullies. The general direction of these clefts is across the road from Caere to Rome, and would make it improbable that a route corresponding to the Via Aurelia could be preferred to a more roundabout but far easier way already opened through Veii to the south.[67] The absence of tangible evidence in the earliest Latian graves for direct contact with the Etruscan coast confirms the suggestion of geographical conditions.

Another evidence of infrequent passing back and forth through the same country is the lack of topographical traces. In all the square miles between the seacoast and Veii's famous stream, almost no names are recorded in Roman tradition. Etruria contrasts sharply in this dearth of legend with the region penetrated by the Via Salaria and the Via Nomentana. There, though it was no less *ager peregrinus* than Etruria from the view-point of infant Rome, so many "cities" survive at least in name that it is hard to find room for all of them on the map.[68] Antemnae, Fidenae, Eretum, Crustumerium, Cameria, Medullia, Ficulea, Nomentum, and others are all crowded into a space about one quarter the size of the Etruscan territory under discussion. Yet the latter is devoid of Roman associations except for Caere and Veii, and a narrow strip along the right bank of the Tiber and its road. The Tiber fringe included two places, both said to have been taken from Veii in early wars. They are the Septem Pagi,[69] associated with the salt works, and suggesting in their name a grouping of villages in good Italic fashion; and the Silva Mesia,[70] a district rather than a town. Otherwise, within the limits of sea, Tiber, and Cremera, there was a solitude relieved only by an unlocated Artena of doubtful connections, Fregenae which has no history before the Roman colony, and Careiae and Lorium which are known only from imperial sources.[71] The undeveloped country and its difficult nature make it improbable that any road parallel to the coast was used for more than local

[67] See note 46 above. The attack of Tarquinius on Caere (Dion. Hal. 3.58) was evidently made from Veii.

[68] Nissen 2.560, 563.

[69] Dion. Hal. 2.55.5; 5.31.4, 36.4, 65.3; Plutarch, *Romulus* 25.

[70] Livy mentions this place as one of the conquests of Ancus Martius, pages 314 f. below.

[71] Artena is mentioned only by Livy (4.61.11) to clear up confusion with a Volscian town. He says it was destroyed by Roman kings and was in the territory of Caere. See also Ashby *a*.228. For the other places see note 65 above.

needs before Rome had already developed a market important enough to make the effort of reaching it worth while.

b. The Via Cassia

Communication with Rome through Veii is far more possible. A watershed, roughly parallel to the Acquatraversa, provides an almost unbroken ridge along which a road might be expected to run from just west of Veii to the neighborhood of Rome. It is in fact the way later followed by the Via Cassia. Lugli proposes, not without reason then, that this route was the all-important highway which was the first to cross the Tiber at the Roman island.[72] There are, however, two counts against it. The first is archaeological: the material from Veientine graves indicates a different circle of contacts, which link them with southern Etruria rather than with Latium.[73] The second depends on tradition so strong and persistent that it can not be lightly disregarded: the legendary contacts between Rome and Veii (almost all hostile) are not by what seems on the map the most direct route, but by way of the Cremera valley and the roads along the Tiber.

It was not to the Via Cassia that the Fabii marched. It was the Veii-Fidenae road along the Cremera which they tried to blockade by occupying a hill above the valley.[74] Repeated Veientine attacks on Rome from the neighborhood of the Porta Collina on the Quirinal clearly point to an approach from the direction of Fidenae. We can assign no definite location to the Arsia Silva,[75] where the Tarquinienses and the Veientines fought for the exiled Tarquins against the Romans. However, since Livy includes it in the *ager Romanus*,

[72] Lugli *d*.9 attributes importance of Rome to a combination of the Salaria and the Cassia. For the primitive period the Salaria seems a more certain factor.

[73] See page 291 above. Dr. Lily Ross Taylor has called my attention to Andren's mention of the terracotta sculptures as indicating contact between Rome and Veii in the Etruscan period (*Architectural Terracottas from Etrusco-Latin Temples, Acta Inst. Rom. Reg. Sueciae* 6 [1946]). The excellence of the product seems to have outweighed prejudice, but even in this connection, the story of the miraculous chariot keeps the feeling of jealous rivalry (Festus s.v. "Ratumenna Porta," 342 L; Plutarch, *Publicola* 13).

[74] Livy 2.48 ff.; Ovid, *Fasti* 2.201–242; Dion. Hal. 9.15 ff. Cf. Richter, *loc. cit.* (note 30 above); De Sanctis, *Encic. Ital.* s.v. "Cremera"; Scaramelli, *op. cit.* s.v. "Fabia gente."

[75] Huelsen, *RE* s.v. "Arsia" 3; Livy 2.6.5; 7.2. It has been located without much evidence on the Via Cassia three miles from the Porta del Popolo. Other relics of the old woods may show in the groves of the Arval Brethren and of Furrina (note 34 above), and of Albiona (Paul. Fest. 4 L). For probable forest on the right bank, see Ashby *a*. General Introd. 28.

it was probably not far in the interior, but, like the Silva Mesia, was part of the woods which fringed the old road along the right bank of the Tiber. The supposed expedition of Porsenna from Clusium was probably imagined to have come by the Tiber road, to which he could have made his way along the Clanis from his own country (Livy 2.9). The Gauls still used that way a century later.[76] Occasional appearances of Veientines on the Janiculum might be from the same direction. However, small bands of raiders, bent on surprise attacks, might use obscure paths through the woods, which were familiar to local peasants, but which traders would avoid, since for them an open road and a clear view are in the highest degree desirable.[77] Paths and cattle tracks there surely must have been through all that region which appears as a sort of no-man's land in Roman legend. Large and long-established centers such as Caere and Veii would send out wide circles of dependent villages. On some of the stream-surrounded heights there were probably *castella* like those which Livy and Dionysius mention in other places as refuges for the peasantry in time of raids.[78] Doubtless boys drove herds of swine to fatten on the acorns in the woods, and ox carts jolted between farm and market, but there could hardly have been a much-used road to Rome through a country where, from the Roman point of view, nothing was important enough to be given a name, or to leave a trace in the military exploits of their early heroes. To explain why Rome became an important market, we must look elsewhere than to the route of the Via Cassia, which Richter is probably right in judging undeveloped until after the fall of Veii.[79] The first road from Etruria to the south used the Cremera approach to the Tiber, which it crossed at Fidenae, not at Rome.

[76] De Sanctis, *Encic. Ital.* s.v. "Allia"; Nissen 2.607; Ashby *b*.3.25.

[77] Numerous military incidents involve untrodden ways through woods. Cf. Dion. Hal. 6.4.3 f.; Livy 3.7.3. A Volscian army, led by Coriolanus who knew the country well, crossed from Circeii to the Via Latina *transversis tramitibus* (Livy 2.39.3). Fugitives from a battle at Eretum escaped because the Romans did not know the country off the main road (Dion. Hal. 5.46.5). The ease with which ways could be blockaded in wooded hills is illustrated in the Samnite wars (cf. Livy 9.43.8).

[78] Livy 3.3.10; Dion. Hal. 4.15.2; 5.22.1,26.1,44.2; 9.16.4; 10.30.7. See the description of the supposed site of Careia [26] in Ashby *a*.234.

[79] *Op. cit.* note 30 above. The fierce and almost unbroken enmity between Rome and Veii in the legends supports the hypothesis that Veii was the patron of a rival trade route. Far from frequenting Rome's market, Veii spared no effort to thwart the competition which reduced her own profits. The road between them was better barred against hostile visits than opened for convenient access.

c. The Water Highway

The river, to which the first Romans had access only through a broad bog, was probably of less interest to them than the little tributaries around their hill and the springs at its base. To be sure, the Tiber had its uses. Besides adding fish to the food supply,[80] it would make the Palatine a sort of Land's End, and give comfortable assurances that at least from its waters, no enemy, either man or beast, was likely to approach the settlement. It is possible that contact with people from upstream was favored by the convenient stop for boatmen from that direction.[81] It is fantastic, however, to imagine that any water-borne commerce came from the coast by the river channel in the pre-Etruscan period, though both ancient and modern authorities have listed the link with the sea as among the first virtues of the location.[82]

In the days when Rome was beginning, the Tiber was more important as a barrier than as a means of communication. It had long before performed its remote prehistoric service of opening the valley for travel by cleaving a way through the forest and acting as an infallible guide in unexplored wilderness. The sundering power of the river is apparent not only from geographical probability, but from the evidence of archaeology.[83] Yet for all those who have looked back from Rome's known position in historical times, it has required an effort of will and imagination to picture without romantic distortion the first slow stages of growth. It is difficult to forget a state of things when all roads led to Rome, and the docks of the Emporium received daily consignments from the markets of the world. Strabo, more realistic than most, says bluntly (5.3.2,7) that the founders built Rome where they did more from necessity than from choice, but the Roman writers tend to ascribe to the very nature of the site advantages which were only acquired by generations of determined effort.[84] Livy (5.54.4) trans-

[80] Bones of fresh water fish were found in Forum graves (Von Duhn 422).

[81] See pages 287 f. above.

[82] Cozzo 135; Pareti 56 f.; Nissen 1.317 f.; Romanelli, *loc. cit.* (note 64 above); Cicero, *Rep.* 2.6–11; Pliny, *NH* 3.53 f. Beloch (*op. cit.* [note 14 above] 201 f.) exaggerates the importance of the Tiber to Rome, which he says was the natural emporium of the whole district because of its situation on the river.

[83] De Angelis d'Ossat 87; Giglioli, *op. cit.* (note 42 above) 339. On rivers as barriers, see L. B. Holland, *Traffic Ways about France*, etc. (Allentown, Pa. 1919) 1–17. For the river as guide through the wilderness, cf. Vergil, *Aen.* 8.57 and Servius *ad loc.*

[84] For Cicero and Pliny, see note 82 above.

fers imperial conditions to the days of the Gallic disaster, when he represents Camillus claiming as advantages a river useful for receiving merchandise from overseas, and the sea near enough for convenience, yet not so near as to lay Rome open to danger from foreign fleets. Even in the fourth century B.C. maritime trade at Rome was still negligible.[85] This was true in spite of the fact that the sea was closer at hand then than at present, or in Livy's day.

Vergil, who perhaps kept a country boy's ability to judge the practical meaning of a landscape, accurately estimated the difficulties of reaching the city by boat in prehistoric times. For dramatic and artistic reasons, he wished Aeneas to arrive at the site of Rome by way of the water. To make the achievement seem possible, he records a miracle by which Father Tiber stops the current "remo ut luctamen abesset" (*Aen.* 8.89). In spite of such assistance, which would hardly be available to the ordinary merchant sailor, the hero with his crew of chosen warriers requires a night and a day for the journey.

> Olli remigio noctemque diemque fatigant
> et longos superant flexus. *Aen.* 8.94 f.

Vergil probably visualized the Trojans as starting from Augustan Ostia, but even from there, the distance by road was no more than a day's walk. Without the dead still water spread before them by the god's favor, they would have found it necessary to stop during the hours of darkness, a tedious interruption which the poet did well to avoid. Ovid, in his somewhat confused account of the voyage of Magna Mater along the same section of the river, notes that her barque was tied up for the night to an oaken stump at an otherwise unknown place which he calls Tiberina Atria (*Fasti* 4.329–33).[86]

In imperial times the cargoes of sea-going ships were transferred at the mouth of the river to lighters, and from there were rowed or towed (or both) to the docks of the city.[87] Procopius (5.26.9–13),

[85] For late development of Portus and Emporium at Rome, see Säflund 175,177; for general lack of interest in seafaring, Jordan 1.1.428; Ashby *a*. General Introd. 16; Frank, *Economic Survey of Ancient Rome* 1.54.

[86] Carcopino, *op. cit.* (note 2 above) 526, locates this place at a bend in the river near Ostia. Cozzo 143 suggests more plausibly that it was a halfway stop between Ostia and Rome. Livy (29.14.10) has the image transported by land from Ostia to Rome.

[87] Dion. Hal. 3.44. Problems of towing are discussed with excellent illustrations in Cozzo 136, figs. 34–37.

though he writes in the sixth century A.D., describes a system like that of Rome's most prosperous days:[88]

"Moreover, the Romans at the very beginning made a road from Portus to Rome, which was smooth and presented no difficulty of any kind. And many barges are always anchored in the harbor ready for service, and no small number of oxen stand in readiness close by. Now when merchants reach the harbor with their ships, they unload their cargoes and place them in barges, and sail by way of the Tiber to Rome; but they do not use sails or oars at all, for the boats cannot be propelled in the stream by any wind since the river winds exceedingly and does not follow a straight course, nor can oars be employed, either, since the force of the current is always against them. Instead of using such means, therefore, they fasten ropes from the barges to the necks of oxen, and so draw them just like waggons up to Rome. But on the other side of the river, as one goes from the city of Ostia to Rome, the road is shut in by woods and in general lies neglected, and it is not even near the Tiber, since there is no towing of barges on that road."

From this account there are two important inferences to be drawn: first that the effective connection between Rome and a harbor at the mouth of the river depended on the existence of institutions such as the early Iron Age traders never imagined, and which were possible only when one strong and wealthy power controlled the whole valley; second, that the natural disadvantages of the left bank reasserted themselves as soon as maintenance was neglected, and that the once busy tow path between Rome and Ostia had disappeared without leaving a trace.[89]

The mouth of a strongly running river, facing into the storm wind of the region, did not offer a safe or convenient harbor for any type of ship.[90] It was only under the Empire that by elaborate harbor works the Romans partially remedied for the time being the defects of the natural situation. The initial effort, moreover, did not finish the task. The artificial ports had to be maintained by a

[88] Translated by Dewing (Loeb Classical Library, 1919). Procopius here pictures nothing anterior to the imperial harbor at Portus. Dion. Hal. 3.44 notes some of the Tiber's limitations for commerce. Pliny (*NH* 36.69 f., 16.201) mentions as a marvel the safe carriage of obelisks from Egypt to Rome by water. Propertius (1.14.3) speaks of boats passing rapidly down the Tiber and being pulled slowly back.

[89] A tow path mentioned as in use in the 19th century from Ponte Felice to Orte (Smith 35; Nissen 1.318) has similarly disappeared. The decay of Ostia and the difficulty of transport on the left bank is further set forth by Procopius 5.26.14–17.

[90] Strabo 5.3.5; Dion. Hal. 3.44; Jordan 1.1.428 f. On the history of the harbor, see Calza, *Encic. Ital.* 25.743–747, s.v. "Ostia"; L. R. Taylor, *Cults of Ostia* (Bryn Mawr, 1912), Introd. 5–9.

constant expenditure of labor and funds. The same is true of the channel, which required periodical dredging, not only at the mouth, but in other places where silt tended to collect on the curves. The languishing of Tiber traffic in mediaeval and modern times is an index of its disadvantages. Civitavecchia (ancient Centum Cellae), another artificial harbor, built by Trajan to fill a need still existing after his work at Portus, became in his time and has since remained the port of Rome.[91]

The road which Procopius describes is of course the tow path. While the Via Portuensis, like the road from Ostia, kept a straighter course along the ridges,[92] where the ground was solid, the track for the oxen must of necessity skirt the very edge of the Tiber and follow all its windings through the marshy bottom lands. To make such a path "present no difficulty of any kind" was possible only to engineers with long experience of constructing and maintaining a road bed in unfavorable terrain, and even for them it would be impossible to keep traffic moving in seasons of very high water. Rome's beginning belongs to a time when all roads were such as are described on modern Italian maps as *a fondo naturale.* If the existence of a tow path is unthinkable in that period, an organized towing and lighter service is no less so. An imperial treasury and the elaborate system attested by the inscriptions of Ostia and Portus provided Rome with a seaport for limited uses[93] in the first and second centuries A.D., but we may safely bar maritime trade from the list of forces which gave the initial impulse to her existence and growth. The busy harbor of the late republic and the empire grew up to minister to the needs of a large and hungry city which was the cause rather than the result of its activity.

4. The Etruscan Road

It was not a sea change, then, that Rome suffered in the second period of the Iron Age, but unquestionably a change of some sort

[91] Pliny, *Ep.* 6.31.15–17; Dennis 1.298 f.; Calisse, *Encic. Ital.* s.v. "Civitavecchia." An artificial modern port built over Trajan's works furnishes grain and coal to Rome, and raw materials to industries in the upper Tiber valley.

[92] Platner-Ashby, s.v. "Via Portuensis."

[93] Freight carried by water was always limited to heavy or bulky goods which could not be handled efficiently in wagons: grain, wine, and farm products carried in pottery jars; metal, building stone, and pozzolana (Lanciani 510, note 1, 525 f.,532). There seems a direct connection between Trajan's new harbor at Portus and the importation of marble needed for his Forum (*Economic Survey of Ancient Rome* 5.219 f.).

must account for the fact that the villages of the Septimontium,[94] which had lagged behind contemporary settlements, then became part of a large town embracing additional hills and acquiring a position of leadership among the neighbors. In spite of the lack of easy natural approaches except from central Latium, Rome apparently built a bridge early in her history,[95] the famous Pons Sublicius. The bridge was a wonder in the Italian world, since it was the first to span the Tiber. As such it became a prominent feature in local tradition, and the preservation of it into historical times as a religious monument assures us that the legend had some foundation in fact. Such a daring and revolutionary project was not lightly undertaken, but must have been inspired by some compelling combination of circumstances. The explanation may lie in the interference with the old salt route by the Etruscans, who from the beginning of the Orientalizing Period, occupied Veii and controlled the river at Fidenae.

There is still a great variety of opinion on who the Etruscans were, and whence they came, but no one denies that a lively connection existed between the markets of the eastern Mediterranean and the leading cities of Etruria before 700 B.C.[96] The abundance of imported eastern luxuries in the equipment of central Italian burials belonging to the following century has given the name of "orientalizing" to that period. Obviously an aristocracy of wealth had arisen in towns like Caere and Tarquinii which had in the Iron Age been markets and refuges for an agricultural population.[97] Their wealth then had been farmers' wealth, in flocks and land and children. Some graves were poorer than others, but there was no spectacular distinction between neighbor and neighbor. The culture known to us as Etruscan, on the other hand, is marked by a true urban development when commerce and industry, supported on a solid basis of agriculture, made possible the accumulation of

[94] See note 59 above.

[95] De Angelis d'Ossat 88. For the bridge see page 312 below.

[96] G. M. A. Richter, *Handbook of the Etruscan Collection, Metropolitan Museum* (New York, 1940), Introduction; Whatmough, *Foundations of Roman Italy* (London, 1937), Chap. 9. For contrary theories of Etruscan origins, see Pareti, *Le Origini Etrusche*, Florence, 1926; Pallottino, *L'Origine degli Etruschi*, Rome, 1947.

[97] Pareti 173–381 describes the contents of the Regolini-Galassi tomb at Caere. For the Bernardini and Barberini tombs at Praeneste, see C. D. Curtis, *MAAR* 3 (1919) 9–91; 5 (1925) 9–52. The social and economic revolution suggested by the material of the great Orientalizing tombs is the most striking change from the preceding period.

great fortunes. Words like "prince" or even "dynasty" seem to have a possible application for the first time in this part of the world.

Merchants when they prosper seek sooner or later to expand their markets. The question of safe transport, which Pareti and Cozzo raise[98] in connection with the earliest trade in bronze and iron, became crucial when wrought gold and silver and ivories of great price had been brought from the ends of the earth to reach their final purchasers in Italian towns. The ambitious Etruscan in Caere or Tarquinii might well seek an overland route by which he could distribute his wares without exposing them to the risks from storm and piracy which threatened coastwise shipping. Through Veii's valley and the ferry to Fidenae, he may have found the way already established by the ancient metal trade between Etruria and the south. Certainly the tracks were well worn in the preceding century between the Etruscan coast and Veii, which shows signs of being Etruscanized early in the Orientalizing Period.[99] Beyond that point the way was obvious. Every stage of the roads to Praeneste and Tibur, where counterparts of Etruscan material have made their astonishing appearance (Von Duhn, 516 f.), is visible to one standing on the Veientine citadel at the Piazza d'Armi. Between Veii and the river, the road along the Cremera, flanked by hills all the way, could be converted at need into a fortified pass. Beyond the Tiber a convoy could proceed by easy stages, giving notice of progress and making sure of a clear road ahead by exchanging signals with posts along the way.

Praeneste plays no part in the earliest Roman stories, belonging as it does to a different world from the villages of the Latian plain, but the evidence of archaeology for direct contact with Etruria seems clear. The way by which the connection was maintained is quite as plainly demonstrated by the land itself. On the site of Gabii, Ashby comments,[100] "Though its height is not so noticeable from the immediate neighborhood, it is surprising from how many distant points it is visible." This feature, combined with its defensibility, accounts for its being an important way station on the Etruscan road. Archaeology gives some support to the topograph-

[98] Pareti 54; Cozzo 58.

[99] L. Banti, *loc. cit.* (note 40 above); Pareti 13. See above page 291 and note 45. Giglioli, *op. cit.* (note 42 above) 341 maintains that Veii had always been Etruscan.

[100] Ashby *b*.1.192 f. It is significant that Gabii, Veii, Fidenae are linked together as "oppida devota" in Macrobius, *Sat.* 3.9.13.

ical argument, since the one burial known there of orientalizing date proves that the neighborhood was reached by imported goods.[101] From Veii to Gabii, with time out for crossing the Tiber, would be a full day's journey.

The river crossing was the critical point of the route, less because of the break caused by the ferry itself than because the two roads along the Tiber (Via Tiberina and Via Salaria) intersected the Etruscan road where it met the river on each side. Veii, which could see all the Sabine hills spread out across the Tiber, had no view of the approaches to the crossing by those Tiber roads. It was chiefly for this reason that the height of Fidenae (Castel Giubileo), directly opposite the opening of the Cremera valley, was essential to Veii's communications. The isolated height which represents the ancient citadel[102] could forewarn the Veientines by signal if people were approaching by water or by land from any direction. Toward Rome, the view from Fidenae was entirely open for only about two miles, where it was interrupted by the hill of Antemnae. Part of the site of Rome, where perhaps the island crossing was already coming into use, was masked by the Pincian. However, the space under control in that direction was sufficient for safety, while upstream both the river and the road were intermittently visible for miles. To Veii, closed in her narrow glen, Fidenae was a prize worth fighting for in times when the *bel vedere* still dear to the Italians was valued for other reasons than for aesthetic delight.

The means by which men, carts, and pack animals were conveyed from the right bank to Fidenae was apparently a ferry, though of what type we can not say. Cozzo[103] proposes that the cable ferry, of a sort still in operation at various places along the Tiber, was already used in remote antiquity. The arrangement is ingenious, but the principle so simple and its use so widespread that it may have been discovered early in the history of human culture. A line is made fast to posts or trees on the two banks, and a flat boat

[101] Villa Giulia Museum; Von Duhn 488 f.

[102] Dennis as usual has the best description of the site (1.49–53). See also Nissen 2.604 f.; *CIL* 14.453. The opening of the Cremera valley is opposite Castel Giubileo, but the stream now turns and runs parallel to the Tiber to an actual confluence opposite Villa Spada. The writer has not been able to discover when and how the change (which suggests dyking operations to protect the Cremera valley from floods) was brought about.

[103] Cozzo 87 f. The method of operating such a ferry is described in Cozzo 41 Ashby *a*.248 reports possible trace of ferry in use at Fidenae in imperial times.

is attached to it by another line which slides freely along the main cable. The ferryman has only to set his barge oblique to the current, and the force of the river pushes it across without further exertion on his part. A rapid current is an advantage, since the faster the water flows, the faster the barge crosses the channel. This fact is an argument for such a device at Fidenae, where the swift current, on which the ancient authors comment, would be a disadvantage for rowing across, but an asset to a cable ferry. The difficulty would lie in manufacturing a cable sturdy enough to withstand the strong pull of the barge in midstream, and in devising a trolley which would function efficiently. Some sort of floating conveyance was necessary at Fidenae. There is no hint of a permanent bridge there in ancient times, though Veii may well have used temporary bridges of boats for setting troops over during the frequent local wars. Fording the river at that point seems out of the question, since refugees from battles on the left bank are said to have drowned in trying to escape by swimming.[104]

The position of Fidenae on its high fortress dominating both the river and the Via Salaria, together with the link with the Veientines on the other side of the Tiber, meant the absolute control not only of the ferry, but of all traffic along the valley, by water or by land. When Dennis says[105] he lay on the citadel at Castel Giubileo and watched rafts floating down the stream, one has a grim vision of ancient watchers sighting the hapless Sabine when he was still far upstream with the timber or grain he intended to barter down below for salt and salt fish. The reception committee would be ready on the bank when he arrived at Fidenae, to exact what toll they pleased as the price of passing. An attack on grain barges at that place precipitated one of the legendary wars with Rome (Dion. Hal. 2.53.2). The traveler on the road would be in no better case. The left bank road (the historical Via Salaria) ran in a narrow cleft between heights at the site of Fidenae.[106] The ease with which it could be barred is immediately apparent. On the other side the traffic on the Via Tiberina could be seen long enough in advance to bring out a guard from Veii, if indeed the little height usually

[104] E.g. Livy 5.38.5,8 f.; Dion. Hal. 3.25. Etruscan reinforcements reached the Latins by this crossing (Dion. Hal. 3.41,52). A pontoon bridge in regular use would interrupt downstream traffic and is unlikely for that reason.

[105] 1.52.

[106] See Gell's plan in Dennis 1, opposite page 49.

believed to be the castle of the Fabii[107] was not permanently occupied as an outpost in the Etruscan period.

Organized interference with freedom of movement along their familiar ways would rouse resentment in the people of the countryside who are not pictured in the legends as lacking in courage or independence. Since fighting would be hopeless against the well-nigh invincible alliance of Veii and Fidenae, the only solution was in the use of a detour, which by some other way would give them access to the salt works of the right bank.

5. The Roman Bridge

To escape the tolls, or to save both their lives and their goods in times of active hostility, travelers could avoid the *fauces* at Fidenae by turning inland, probably along the loop of the Via Nomentana.[108] Perhaps the existence of a town at Eretum may be explained by a junction point of this road with the Via Salaria.[109] Other minor routes which Ashby[110] traced in the district between the Via Salaria and the Via Nomentana could be responsible for the rise and fall of the close-set towns which had a temporary crossroads usefulness in that much-traveled space, while Veii and Fidenae maintained their partnership. It might be well worth while for people from the fringes of the Faliscan and Capenate lands to cross over to the left bank and join the Sabine route, thus reversing the traffic in the older period, when the right bank road was the one preferred. Free intercourse from side to side of the river upstream is indicated by the similarity of the archaeological material.[111] There were probably several ferries between Nazzano and Ponte del Grillo, while above the junction of the Nar there would be fords except in the seasons of high water.[112] The number of traditional battles fought at Eretum against "Etruscans" as well as Sabines suggests that it was a point where bands from both sides of the river might be intercepted on their way down the valley (Dion. Hal. 3.59).

[107] Nissen 2.360.

[108] Maps accompanying Ashby *b*.3 are useful here.

[109] Strabo 5.3.1; Ashby *b*.3.27 f. At an elbow in the Tiber near there, roads from Cures, Reate, and Terni seem to meet.

[110] *Op. cit.* 24.

[111] Cf. Von Duhn 386, 600; Sundwall 167; L. A. Holland, *Faliscans in Prehistoric Times* (Papers and Monographs, American Acad. Rome, 1925), 75, 101, 103. Groves of Feronia occur on both sides of the Tiber (L. R. Taylor, *JRS* 10 [1920] 36). The Augustan bridge which carried the Flaminia into Umbria (Nissen 1.315) was probably at the site of a ferry to which roads were worn in very early times.

[112] The Tiber draws half its volume from the Nar. See Smith 11; Nissen 1.312.

If travelers from the hills to the salt beds used the left bank for the first part of their journey, they would be compelled, though the Tiber grew more formidable with every kilometer, to find a crossing to the right side somewhere below the region where Veii's authority could be asserted. How far that zone spread is demonstrated by the name "ripa Veientana"[113] which clung to the Roman right bank for centuries after the great rival had fallen and the plow had passed over her walls. To approach the river, a return to the historical Via Salaria might safely be made anywhere below Antemnae,[114] a natural fortress at the confluence of the Anio and the Tiber. Its hill not only commanded a fine view of Fidenae, from which it screened an important section of the road toward the sea, but could exchange signals with the Capitoline at Rome.[115] It may be as old or older than Rome in its Latin connections, since it is the place where the Alban villagers would most naturally seek the Tiber,[116] and the river is less difficult to cross there than at Fidenae. However, the right bank was uncomfortably far from the road on that side, and too easily within Veii's reach. The operation of a ferry at that point within plain sight of Fidenae could not escape interference.

[113] The name is still used on imperial cippi (*CIL* 6.31547, 31548 b). See *HJ* 651 f., 622. Cf. "litore Etrusco," Hor. *Odes* 1.2.14.

[114] For the site, see Dennis 1.44, 46 f.; for excavated material (scanty and unsatisfactory), *Not. Scavi* 1886,24; 1887,64–68. Cf. also Lanciani 110–113 with plan showing relation to the Via Salaria.

[115] Livy (4.18.6) describes a dictator with the army at Antemnae as he watches for the battle signal to be raised from the Roman arx after the auspices. The signal in this case was apparently a flag, but Livy (4.27.12) and Caesar (*BC* 3.65.2) show that the ancients also used smoke signals. Other instances of long-distance communication are Dion. Hal. 3.6.3; 7.11; 5.41. Visibility was important when travel was so slow. Ancient towns were so placed that they could be approached by unseen enemies only at night. The long range of the eye in the neighborhood of Rome has been important in history. The Alban Hills are visible from Caere, or even from Tarquinii on a very clear day, and they remain in sight for travelers on the coast road (Von Duhn 391). Antemnae was early captured by the Romans and its height could be used for camp or signal station. It may have been called *turrigerae* (*Aen.* 7.631) not from turrets of a wall which it probably never had, but from a known tradition of a signal tower. Cf. the restoration of such a tower on the Danubian *limes* in the catalogue of the *Mostra Augustea della Romanità* (Rome, 1937) 387 no. 56 and plate 67. It was useful to have a relay between Rome and Fidenae which was screened from the arx by the Pincian Hill (Dennis 1.53).

[116] Ashby *b*.3.15; Lanciani 110. Stone Age traces are probably a relic of the earliest traffic along the Tiber from the Anio valley. A row-boat ferry is in operation there. The river is comparatively shallow and quiet, though the striking slowness of the current is probably partly due to the railroad bridge and the masonry which in the dry season forms almost a complete dam at the Ponte Milvio.

In all probability the Via Salaria still follows approximately its ancient track south from Antemnae. It leaves the wide meanders of the Tiber for a short cut across higher ground to the Quirinal Hill, where it reaches the so-called Servian Wall at the Porta Collina. It is beyond our power to retrace with any certainty the line of the salt route within historical Rome, where artificial changes have destroyed almost all indications.[117] Even in classical antiquity, what had been a main artery of traffic was lost in a maze of streets and fora. So its original course between the Quirinal and the island is a matter of conjecture. It has generally been assumed that the chief road through Rome to the crossing ran by way of the Forum and the later Vicus Jugarius.[118] To say nothing of the fact that the main highway, as long as it followed the original route, would probably have kept its name and not degenerated into a *vicus*, the footing would be more solid and the way more direct across the lower Campus Martius, immediately northwest of the Capitol.[119] The use of such a path would also cause less offense and alarm to the Romans of the Septimontium who were already using the Forum valley and the paths connecting it with the river bank.

The Roman island offered the first protected crossing on the way downstream from Antemnae. In fact the existence of that great stepping stone, guarded by a citadel hill in an ideal relation to it, probably decided Rome's destiny as the focus of all historical highways which crossed the lower Tiber. Even the nature of the banks is in favor of the place, since they are fairly solid on both sides opposite the island, while below that point swamps would interfere with the approach to the river. Scholars are in general agreed on the importance of the island,[120] whether or not they believe that the

[117] Our ignorance of the exact line of the roads on both sides of the river increases the difficulty of placing the crossing. The meeting of two streams in a wide swamp in the Forum Boarium makes that seem unlikely as the main approach to the river before regular drainage was undertaken there. On the right bank, the Roman Via Aurelia (Platner-Ashby s.v.) passes the low ground on an arch-supported viaduct which tells us nothing about the primitive road. Cf. Jordan 1.1.412.

[118] Cozzo 121; Platner-Ashby s.v. "Vicus Jugarius," where it is called the primitive route, perhaps antedating settlement at Rome. Could there be a ferry with nobody to operate it?

[119] Lugli *d.* 9 f. seems correct in his opinion that the Via Salaria crossed the Prata Flaminia, the southern part of the Campus Martius.

[120] Weiss, *RE* s.v. "Tiberina Insula" (1936); Almagià, *loc. cit.* (note 20 above); Cozzo 87 ff.; Lugli *b.*3.620. The best place for a cable ferry, if such a thing existed,

first bridge took advantage of the pier which nature had conveniently set in midstream. The use of the island at all implies, perhaps, that the crossing was by a bridge. The shorter span would facilitate the use of a cable, but to divide a ferry into two sections would be to increase inconvenience and multiply the effort of embarking and disembarking almost beyond credibility. If a ford on the far side was possible, the problem would, however, be a simple one. It is highly probable that a ferry of some description was in use at Rome even before a highway of any consequence passed that way, since by means of it the Palatine people could utilize the pastures in the Transtiberine meadows and also make contact with the important road which ran along the right bank to the marshes. To ford the whole width of the river even in summer was impossible below the Anio, and in the highest degree improbable below the Nar. No ancient writer suggests a ford at Rome, and competent observers are convinced that there was none. Some modern authors, however, casually assume a ford below the island[121] as a forerunner of the Pons Sublicius, conjectured to have been built at that place. Nobody waded through the river at Rome where even Hercules had to swim (Livy 1.7.4). His manner of transit with a herd of cattle is quite possible, and his exploit may have been rivalled, cattle and all, by many a primitive Roman. However, for the kind of merchandise which must be carried and not driven, the only ways at Rome were by bridge or boat.

To judge from conditions at other islands in the Tiber (and upstream they are numerous), the river in its natural state is likely to have run hard in a narrow channel on one side, but on the other to have been sluggish and shallow. Bridges on both sides of the island have apparently been necessary for many centuries, as the ancient name of "Inter duos pontes" implies, but artificial changes at that part of the river have been extensive, and the effect of interfering with nature was illustrated by the drying of the channel under the Pons Fabricius after the embankment changes of the late

was below the island where the rapids, correctly noted by Jordan (1.1.394, note 2; 400) as difficult for a bridge, would make its operation more efficient. De Angelis d'Ossat 88 argues for the technical possibility of a bridge at the island at a very primitive date.

[121] Dion. Hal. 9.68 says it was impossible to cross the Tiber on foot except by a bridge. Platner-Ashby s.v. "Pons Sublicius" speaks of "slack water below the island where the original ford was situated." Jordan 1.1.394 and Gilbert, *Geschichte und Topographie Roms* 2.178 note 1 (Leipzig, 1885) describe the same place as dangerous with rapids. Smith 25 and Nissen 1.317 join the latter in supporting Dionysius

nineteenth century.[122] The reinforcement of the island with masonry, and the building of stone embankments in classical antiquity may have modified the behavior of the Tiber considerably. We can only conjecture the state of the Roman island[123] in the seventh century B.C., but analogy with islands upstream, and observation of the current on curves of similar shape, suggest the possibility that the river may have been fordable on the far side. A pontoon bridge, or more probably a *pons sublicius* supported on piles driven into the bed of the stream, might have spanned the deep channel on the Roman side, while in the position of the Pons Cestius, less elaborate provision would be needed, possibly nothing more than a causeway in the dry season. At any rate, the channel between the island and the right bank would tend to fill with silt and be shallower than that on the Roman side. The technique of pile-driving and the building of wooden platforms over water had been familiar to the peoples of Italy for centuries before a permanent Roman crossing was established in response to the Etruscan challenge. Traditionally a pile bridge carried the Via Salaria over the Anio in the days of the kings,[124] and the network of streams and ponds among which the Roman Sabines are said to have lived before their descent upon the valley, provided ample opportunity for practice in such construction.[125] Though psychologically the project of spanning the river was a portentous one, and religious scruples

[122] Lanciani 18. For the name, see Platner-Ashby s.v. "Insula Tiberina."

[123] Besnier (*L'Île Tiberine dans l'Antiquité*, Bib. des écoles franç. d'Athènes et de Rome, 1902) made an often repeated statement that the island is of the same tufa rock as the Capitoline (cf. Platner-Ashby *loc. cit.*). De Angelis d'Ossat 77 shows a dismaying lack of evidence for this assertion, but gives his opinion that the island existed from prehistoric times and was of cardinal importance in making an early bridge possible (88). The small island shown in old maps at the upper end of the Insula Tiberina was apparently formed by a mass of masonry which fell away from the bank (81). The present width of the right channel is misleading because it was artificially widened in modern times so that the Pons Cestius (cf. Platner-Ashby s.v.) had to be lengthened.

[124] Ashby *b*.3.4 note 1. Tarquinius Priscus burnt the Anio bridge in a war with the Sabines (Livy 1.37.1).

[125] Dion. Hal. 2.48 ff., on the authority of Cato, brings them from the Lacus Velinus region of Reate [1] which was reached by a branch of the Via Salaria. Cf. Festus s.v. "Sacrani," 424 L. Dion. Hal. 1.14.4 describes a town of the Aborigines in this district which used the waters of the swamp instead of a wall. For the pile structures of the northern lakes and in the valley of the Po (dating back in some places to the Cuprolithic Period) see lake village on the Lago di Ledro, where 17,000 oaken piles were found by excavators (Barocelli, *Encic. Ital.* 29,939 f. [1935] s.v. "Palafitte." Cf. *Encic. Ital.* Appendix 2,90, s.v. "Italia" for photograph). For bridge-building tradition, see Jordan 1.1.394 f.

had to be considered, the engineering problem was not too difficult to be undertaken, once the decision was made.

The role of the Via Salaria was continued beyond the Roman bridge by the Via Campana, the name of which also has a salty flavor, being connected with the *Campus Salinarum Romanarum* on the right bank.[126] The suggestion has been made that salt was brought upstream as far as Rome in boats, and from there distributed by land.[127] The ancient statement is that the Via Salaria was so called because by way of it the Sabines used to carry salt from the sea (quia per eam Sabini sal *a mari* deferebant), not from the Porta Collina. Since the physical conditions make it improbable that anything was brought to Rome by boat from points downstream in the early years of her existence, we may interpret the passage quite literally (Paul. Fest. 437 L), and assume that, at least until the old road completely lost its identity in the monumental development of the Campus Martius, it went on through Rome, across the Tiber, and to the salt beds.[128]

The Roman detour to which the Sabines were forced when barred from their previous route on the right bank would not necessarily provoke resistance from the shepherds already settled in the villages of the Septimontium. The traffic would not cross their bounds or interfere with their pursuits. Their villages on the Palatine and Esquiline faced no challenge, for it is unthinkable that the newcomers, whose primary interest was to control the crossing, could fail to see the desirability of the hitherto neglected Capitoline. They would certainly occupy it, not as a second or third step in developing a settlement, but as the first. Not only is this hill nearest to the island, but it stands out from the Roman group as best fitted in size, height, and character for such a fort as the bridgehead would require.[129] Its area is small enough to defend

[126] Ashby *a*.30 f. and (for a road from the Janiculum to the sea) 227; Lanciani 528.

[127] Platner-Ashby s.v. "Salinae," but see contrary view s.v. "Vicus Jugarius." For the beginning of the road at the Porta Collina, see Jordan 1.1.430; Ashby *b*.3.7.

[128] Paul. Fest. 437 L. The corresponding Festus passage (436 L) is badly mutilated. It is plausibly restored to refer to the Porta Collina, but in what connection is unknown. It may just as well have said that the road passed through the Porta Collina.

[129] Lugli *a*.10; *d*.14; Almagià, *op. cit.* (note 20 above) 590 b. Tacitus says the Capitol was added to the city not by Romulus, but by the Sabine Tatius (*Ann.* 12.24). There were of course no "cities" on the site of Rome in pre-Etruscan days. Arguments like Beloch's against the dual origin of Rome (*op. cit.* [note 14 above] 204 f.) are based on a failure to realize the nature of the first settlements.

with a few men, and to keep clear of trees and other growth which might interfere with a potentially unobstructed view, east along the Via Salaria, north across the flat sweep of the Campus Martius to the site of the Pons Mulvius, and downstream past the beetling cliff of the Aventine. The use of one summit of the Capitoline as the *auguraculum*[130] of historical Rome is witness to its qualifications as an observation post. Livy (5.48.6) describes the bitter trial of the Roman force besieged on the Capitoline by the Gauls: "diem de die prospectans ecquod auxilium ab dictatore appareret," and the hopelessness they felt because they knew that there was no relieving force if they could not see one. There is only one direction from which an approaching band would not be visible for miles.[131] That is from the west, beyond the high ridge of the Janiculum which overtops the hills on the left bank. Some special provision against surprise attacks from that quarter would be needed. It is interesting to note that tradition places an early fort on the Janiculum connected with the *arx* of the Capitoline by a system of flag signals, which survived as a vestigial remnant of past military usefulness to the days of Cicero and Caesar.[132] The establishment of a Janiculan outpost, more probably a watch tower than a fortress at first, is associated with the fourth of the legendary kings, the Sabine Ancus Marcius. Around his name have gathered the traditions of the salt road and its development, just as those of the religious organization have attached themselves to the name of Numa.

Though King Ancus is not an historical personage of whose acts reliable records were kept, the works attributed to him make a reasonable and consistent picture of the steps by which the Sabines on the Capitol might have consolidated their position to control the salt trade. First he established a permanent river crossing, which appears in Livy (1.33) as the Pons Sublicius, and for want of the exact term in Greek, as the "wooden bridge" in Dionysius (*Ant. Rom.* 3.44.2). To protect the bridgehead he posted a signal station on the Janiculum. Livy (*loc. cit.*) reports this as annexation

[130] Platner-Ashby s.v.; Lugli *a.*37; Festus s.v. "Summissiorem" 466 f. L; Cic. *Off.* 3.66 f.

[131] Jordan 1.1.131.

[132] For the obscure question of "vexillum in arce positum," see Grimal, *Rev. Arch.* Ser. 6.24 (1945) 68 ff.; Lugli *a.*36. Cf. Dio Cassius 37.28; Macrobius *Sat.* 1.16.15; Livy 39.15.11; Paul. Fest. s.v. "Iusti dies" 92 L; Servius *ad Aen.* 8.1. See note 115 above.

of the hill to prevent its occupation by an enemy, while Dionysius (*loc. cit.*) says he fortified the height against the Etruscans who were molesting river traffic, an explanation nearer the truth, though the traffic was on the river road, rather than in boats on the river. Meanwhile Ancus developed the salt works (Pliny *NH* 31.89), the objective of the road which the bridge served. Both Livy and Dionysius follow a source which confuses this development with the foundation of Ostia as the seaport of Rome, probably through the association of *salinae* with Ostia in historical times. Actually as a step in acquiring monopoly of the salt trade for the right bank, Ancus destroyed a rival establishment of Latins on the left bank. This is the story of Ficana,[133] located on a hill opposite the Fosso Galeria. It is more easily accessible from the Alban Hills than from Rome, and it shared in the Alban sacrifice (Pliny *NH* 3.68). Though the traditions about it are obscure and shadowy, it is a reasonable place for the Latins to frequent, and was probably occupied early. Dionysius (3.38.3) says that the Latins took possession of this place and were trying to profit from its products (unspecified), when Ancus destroyed it and deported the population to Rome. The deportation implies the cessation of work in the salt beds which had supported the village. So the focus of Roman interest continued to be on the right bank, where Ancus is said to have extended Rome's authority as far as the sea (Livy 1.33, Dionysius 3.41.3). He fought with the Veientines and the Fidenates (Dionysius 3.39–41) until he acquired permanent title to the salt works on that side. The attempt to establish ownership of the *salinae* would naturally lead to clashes with the peoples upstream who had always frequented them.

A bridge once established at Rome and secured by the Capitoline fort would attract other roads to itself, for a bridge acts upon roads as a magnet upon iron. Such a concentration point can not fail to grow in population and influence. The later graves of the Forum already show indications of broader trade contacts.[134] A road along the coast from Caere[135] began to be used in spite of the

[133] See notes 17 and 18 above.

[134] Von Duhn 464; Scott 28–30.

[135] Generally assumed to correspond to the Via Aurelia. Leopold, *Mededeelingen Nederlandsch historisch instituut te Rome* 6 (1926) 63, considers the Aurelia a late road of penetration developed for military uses. His reasons against the Aurelia are good but his substitute for it is not convincing. For the Caere-Veii road, see note 46 above. A possible later variant would be a road from Caere to Ponte Galeria, whence to Rome

difficult ground it must cross. Caere and her satellites would welcome the opportunity to by-pass Veii and strike directly for the new markets opened for them by the Roman bridge. Latium was growing not only more populous, but less self-sufficient. The expanding demand for metals in particular would stimulate trade with the Etruscans, who had access to sources of supply. The market was increasing, not only for luxuries, but for articles in common use, in the manufacture of which special materials or special skills were necessary. This category would include ox yokes and plows, wagon wheels, and other farm implements which in the most primitive days every household made after its own crude fashion.[136] The route from Etruria over the Janiculum and the Roman crossing formed the basis of the long-standing friendship said to exist between the early Romans and the Caeretans. It was over the Janiculum that the first Tarquin came, bringing his wife and his household goods in a cart (Livy 1.34). It was the way by which the Vestals and part of the Roman populace fled to Caere (Livy 5.40.5–10) to escape the Gallic invasion at the beginning of the fourth century B.C. For the first time with the development of the Etruscan coast road, Rome became a crossroads, and the setting for the busy market which Lugli (*d.*574) pictures as existing even earlier. From all over Latium people drove their cattle and flocks to barter for what they needed at the meeting place of traders near the bridge. The natural road from the Alban Hills toward the Tiber had from the beginning facilitated the approach to Rome from that direction. Other less obvious and easy roads, such as that from Ardea[137] and the Latian coast, must have come into regular use with the increase of Roman trade. There seems no evidence for an early road to Ostia. There would indeed be little use for it before the fourth century B.C. when Rome's military

by the old river road of the right bank. This is in general the line of the modern railroad. An index of the opening of freer communications is in the increased range of raiding parties: Tarquinienses and Faliscans appear at the Roman *salinae* to which only Veii had had access (Livy 7.17.6). Caeretans are involved in another raid there (Livy 7.19.8).

[136] Cato (*RR* 135) lists places where good implements are to be had. He covers a wide range of markets with definite specialties.

[137] For difficulties, see note 57 above. Before the end of the kingship, however, the direct road is used to Ardea, though the latter has more natural access to the Alban region than to Rome. Sextus went to Collatia from Ardea by way of Rome (Livy 1.57.8 f.). The Gauls who were strangers in the country made straight for Ardea, and so the way was clearly marked and easy (Livy 5.43.6).

outpost at the Tiber mouth had to be kept in close touch with the city.

So began the days of Rome's "border ballads," of battles for the salt works and the Septem Pagi, of battles for Antemnae and Fidenae, of battles with the Latin towns which gave aid and comfort to the enemy. The sense of common advantage and common danger consolidated the Latin and Sabine settlements which had begun more or less amorphously on the Roman hills, and sharpened the realization of the ties between them. People who ate the same food, shared the same holidays, and traded in the same market place would soon find political unity. As the villages fused into a town, a widening zone of rural population used Rome as a market, resorted to its religious celebrations, and fled to it in time of need for protection. The Etruscan threat overshadowing them all strengthened their solidarity and encouraged attempts to build artificial defenses for the town which grew more vulnerable with expansion. On the northeast where the approach was most open and the enemy was strongest, they cut a valley where nature had provided none, and piled up the *agger* as a substitute for the cliff-sides of more favored places.[138] Expansion brought local conflicts in which the weaker disappeared. The useful Antemnae[139] is significantly one of the first of the neighboring sites to be absorbed into the Roman circle.

While the Romans were presenting a sturdy defense against their Etruscan enemies across the Tiber, other Etruscans were already within Rome itself. They had come not from Veii, but in the way of trade along the friendly road and over the Roman bridge, bringing peace and not a sword, armed with the superior skills and the superior guile by which they were to win control of the growing city. Though they came among a people so firmly established that the changes they wrought never penetrated beneath the surface of language, religion, and customs which had already been founded solidly upon the *mos maiorum*, they were able to exploit more fully the commercial opportunities of the location, and to begin a process of attrition by which Veii was gradually weakened toward her final destruction.

The stages of the campaign are as logical and convincing as the career of Ancus. The beginning lay in securing that series of towns

[138] Säflund 164.

[139] See page 309 above.

which we hardly know except as names, but which were apparently key places along the detour opened by the Sabines from the Via Salaria. Some of them would have a high nuisance value in hampering Fidenae along the least direct and most difficult sector of the Praeneste road, between Fidenae and Collatia. These places were gently treated after conquest and planted with Roman citizens to ensure their cooperation. They declined early, since they had no importance when the destruction of Fidenae restored the Via Salaria to its natural function as the main highway of the left bank.

The Tarquins, then, began to conquer actual way stations on the road between Fidenae and Praeneste. The first was Collatia at the junction of the Osa and the Anio. This was a place important enough to name a road, the Via Collatina. Since it held the Anio crossing for Gabii, its loss would be a serious one for the old Etruscan route. An Etrusco-Roman became its ruler.[140] In pursuance of the same policy, which was in marked contrast to the handling of the Sabine towns, the Tarquins set up a prince of their own house to govern Gabii after its capture (Livy 1.53 f.). The Roman road to Gabii broke into the Via Praenestina and began to divert traffic from Fidenae's crossing to the Roman market. A direct attack on Fidenae would provoke immediate action from Veii, a much too formidable antagonist, but the gradual undermining of the economic position was apparently successful. The repeated sapping operations along the Etruscan road, culminating in the taking of Gabii, reduced both revenues and prestige until Veii found herself no longer the tyrant of the region, but actually on the defensive.[141] Caught in an unfortunate position between two great rivals, Fidenae changed hands so often in the latter days of the contest, that authorities differ as to whether the Fidenates were Latin or Etruscan.[142] Fidenae's interests, whatever her origin, were one with Veii's, and except under compulsion, she acted in concert with her powerful patron. She was finally destroyed by the Romans in 426 B.C.[143] Veii could not long survive the loss of the indispensable sentinel at the gates of her valley. The road on which her wealth depended was no longer under her control. The legend of the ten

[140] Nissen 2.563; Dion. Hal. 3.50.2 f.; Livy 1.38.

[141] The defection of Praeneste (again linked with the fate of Fidenae and Crustumerium) to Rome c. 500 B.C. seems a logical development (Livy 2.19).

[142] Nissen 2.605; *CIL* 14.453.

[143] Faliscans and Veientines felt themselves directly threatened by the fall of Fidenae (Livy 4.23.4).

years' siege, which has been called a fiction modelled on the story of Troy, understates rather than exaggerates the situation. Though Rome was powerless to blockade her on the north, support from ancient allies in that direction[144] could only delay the inevitable end. Veii was virtually in a state of siege from the fall of Fidenae until her own capture in 396 B.C.

Conclusion

The foregoing discussion is an attempt to reconstruct from fragmentary evidence the conditions which produced an important Tiber crossing at Rome, and incidentally a second settlement on the Roman hills, this time a commercial and military outpost differing in character and purpose from the older shepherds' villages of the Septimontium. The earliest trade route of the Tiber valley linked the inland hill people with the salt marshes on the right side of the river mouth. With the development of Iron Age towns, the Tiber itself as a highway steadily declined, but crossing points became more and more important. The first road from Etruria to the south crossed the river at Fidenae, where the choice was fixed by the relation of Veii and Fidenae, rather than by the local characteristics of the river. The establishment of the Roman crossing in the Orientalizing Period was due to the interference with the salt route by Etruscans in Veii. In the long rivalry between the two crossings, the Insula Tiberina, by facilitating the construction of a bridge, may have decided that Rome was to be the survivor. The bridge, once built, attracted other roads to itself in spite of difficulties of access from some directions. The original road which it was built to serve was paradoxically a road along the valley rather than across it, the road which had long carried salt to the Sabines.

Like all other theories of Rome's origin, this is based to a regrettable degree on conjecture. There has been an attempt, however, to avoid any speculation which is not in harmony with the concrete evidence of archaeology, and above all, with geographical conditions. The land itself, for all the changes it has suffered, is still a reliable contemporary witness of ancient events. The map is a palimpsest, often erased and rewritten, but still preserving legible traces of the best text. Nothing which contradicts its testimony deserves consideration.

[144] See page 292 above.