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A description of Roman trade routes must, above all, be concerned with the centuries-old trade lanes that passed through the Near East, the Middle East and the far East. So much more outstanding are these routes than any lying in the western part of the Roman Empire, that it has been decided to direct attention exclusively to them, and to the countries through which they ran, namely, Greece, Asia Minor, central Asia, Syria, Egypt and India.

The importance of a study of trade between these countries and Rome cannot be over-estimated, yet the reason for this importance is often not clearly understood. Because of the uneven distribution of resources often influences relationships between countries, it is argued by some that this same influence played a great part in shaping the foreign policies of Rome. It is certainly true that the governing class of Rome was, at times, motivated in its actions by a greed that may be described as economic. Generally speaking, however, the men who controlled the foreign policy of Rome had their wealth invested not in industry or in shipping, but in the Italian and provincial real estate and mortgages. Few of the emperors concerned
themselves with the preservation or with the acquisition of trade routes, with the exception of those routes which brought the vital grain into Rome.

In what respect, then, should a study such as this be described as important? If it is not of exceeding value in gaining an understanding of the political, diplomatic and military history of Rome, it nevertheless explains, as no other study will, the gradual change in character of the Roman people throughout the Imperial period. It is well known how little creative was the ancient Roman, but how truly impressionable he was and how quick to adopt the ideas of other men. The extent of the change that was wrought in the Roman by his intercourse with the countries to the east may never be fully realized, but it can be stated with assurance that no citizen of a victorious nation has ever been so greatly influenced by his conquered contemporaries. The highways that carried the material products of other countries were carrying as well the spirit of those countries, a fact which must be borne in mind throughout the discussion of the trade routes.

Because Rome was bound to the East and to all its influences by Greece, the routes of that country shall be described first. Greece, however, as will be shown holds the first place only because of its position on the Mediterranean, not because of its commercial importance.
The highways of Asia Minor will next be traced, and subsequently the silk routes to China. As the silk routes are more easily traced if their study follows closely that of the routes of Asia Minor, so too, the highways through Syria must necessarily be described along with those of Egypt and with the sea route to India. This logical order, then, will be followed for the sake of clarity. It has no connection with the relative importance of the countries in question.
CHAPTER II

THE TRADE ROUTES OF GREECE AND OF
THE CONTINENTAL TERRITORIES
ADJOINING

The position of Greece among the trading countries of the Roman Empire was a comparatively humble one. At first glance, this statement might appear to be unreasonable. Though Greece had no great resources of its own, yet, with the world's greatest market at its back door, and the rich land of Asia Minor linked to it by ties that had been formed long years before Rome had acquired an empire, it would seem natural to find it playing the role of a prosperous middleman. That this was not the case has been well established by such ancient writers as Strabo, Pausanias, Dio Chrysostom and Plutarch, all of whom found desolation and neglect in their travels through Greece. The loss of its trade and industry could be explained as one of the consequences of the terrible succession of wars in which the Greek cities had been engaged in the fourth and third centuries B.C. It might also be attributed to the decay of agriculture throughout the country. Agricultural decay was bound to mean a declining birth-rate and a loss of manpower. What enterprising citizens Greece then had left, quitted
its shores in ever increasing numbers to sell their skill and wisdom throughout the whole world instead of attempting to concentrate their energy on behalf of their own peninsula. Their own peninsula had nothing to offer them. It may be, of course, that in making these broad statements, too black a picture is being painted. It is true that Corinth and Thessalonica were flourishing cities and that there was great traffic upon the important Via Egnatia to the north, but these places could not diffuse life throughout all of Greece. On the whole, it was a spiritless and poor land that came into the hands of Rome.

The province of Achaea, carved out of Greece in 27 B.C., comprised the Peloponnese and south-central Greece, less those parts of Acarnania and Aetolia which did not help to form the territory of Nicopolis and Patrae. This southern land was far less valuable to Rome than were the countries farther north, such as Macedonia, and indeed, there was little activity in it, except at Corinth, and at Nicopolis and Patrae, the two ports just mentioned. For illustration of this condition there is the fact that no milestones have been found in Achaea belonging to a date earlier than 400 A.D. A large part of the roads in its interior were mere mule-tracks. Many of them could not be used by waggons, and others, in their passage over the mountains, were exceedingly dangerous, as their names imply, (e.g. the
"Evil Staircase").

Since Corinth was the leading city on the Peloponnese, all roads in that territory may be said to originate from it, or to terminate at it. Looking at the road system from this point of view, we find the highways proceeding in this fashion: between Corinth and the port of Patrae on the northwest coast, a road ran along the shore of the Corinthian Gulf passing through Sicyon, Pellene and Aegae to Aegium, and thence to Patrae. Continuing on the same road past Dyme and Cyllene, one could reach a flax growing district with Elis as its centre. All other roads, after leaving Corinth, had Argos as their first stopping place of importance, and then branched forth as follows. One track entered Mantinea, past which it struck out for Elis by two routes, one going by way of Olympia and Letrini, the other farther north through Orchomenus and Psophis. Another track leaving Argos, next stopped at Tegea a few miles south of Mantinea, then proceeded to Megalopolis and points south in Messenia. A third linked Argos to Sparta, and a fourth connected Troezen and Epidaurus with northern Argolis.

There were a few products still being transported out of the Peloponnese by these roads. A large quantity of marble came out of Greece, and some of this was produced by Laconia, whose stone was beautiful in appearance and much
sought after. Pausanias says of the marble quarried at Crooeae that it was veined and beautiful, though hard to work. On Mount Taygetus were new quarries operated with money from Rome, which brought their owners a fine profit. Elsewhere in the Peloponnese there was little stone of any value, although some marble was quarried near Sicyon. There is little to say regarding the export of food stuffs from this region, since, as in most of Greece, the greater part of the land had never been fit for agriculture or else had by this time lost its richness. A few districts, notably Messenia and Elis, did not suffer in this respect, and Sicyon and Phelloe were renowned for their olives and vines. Arcadia's land was particularly fit for grazing of horses and asses, and it was well known for a fine breed of the former. As was the case with agricultural products, there are but few manufactured products worthy of mention. Patrae worked up the flax of Elis for export, and a fine dyed cloth - the dye obtained from Cythera - was produced at Amyclae and Sparta, as well as in other towns.

A survey of the harbours along the coasts of this region brings to light the fact that they were fairly plentiful, though too small, on the whole, to accommodate ships of any size. The larger harbours on the northwest coast, Cyllene, Dyme, and Patrae had won their prosperity from their fortunate position facing Italy. Once they might
have been described as lying on the poorest and most backward coast of Greece, but now Italy's proximity brought business to them, particularly to Patrae. On the southern coast, where strong winds, especially off Cape Malea, were apt to play havoc with ships, there were a number of small havens and roadsteads to offer protection to sailors. The risks incurred in rounding Cape Malea were great. Pliny, on his way to Bithynia, thought it worth while to assure the Emperor of his safety, after sailing in these waters. Another man, a Phrygian merchant of Hierapolis, successfully passed the point 72 times, and felt this to be such an accomplishment that he had it recorded on his tombstone. On the east coast of the Peloponnesse were Prasiae, Troezen and Epidaurus, ports of a fair size. But all these pale into insignificance beside Corinth.

It was not long after Julius Caesar made Corinth live again that the city was as flourishing as it ever had been before its ruin. At the time when St. Paul visited it, for instance, it was probably difficult to see any signs of the destruction wrought by Mummius in 146 B.C., so eager had men been to flock back to this advantageous site. Why it had been destroyed in the first place is not absolutely clear. Of course it benefited Roman merchants to have their Corinthian rivals uprooted, but not all agree that commercial jealousy alone prompted the ruin of the city. Two other
reasons have been suggested. In the first place, to leave a wealthy city near such a strong point as the Acrocorinthus might have proved dangerous. In the second place, the Greeks were more likely to keep the peace with an example of this nature before them. In any case the new Corinth, made up in part of the descendants of the old Corinthian families who had fled to Delos, was a flourishing, busy place. It was a Peloponnesian city, but it had no Peloponnesian characteristics.

Corinth's two harbours, Lechaeum on the west, and Cenchreae on the east, were continually exchanging goods, and ships as well, across the few miles of clay which separated the Corinthian and Saronic Gulfs. Carrying goods across this neck of land and reshipping them on the opposite coast, instead of transporting them around the Peloponnesse, not only meant a saving of 200 miles in the sea journey, but also enabled mariners to avoid Cape Malea on the south. It was unfortunate that no canal existed in that age, but this was certainly not because men did not realize the possibility of cutting one. Periander, Demetrius Poliorcetes, Julius Caesar, Caligula, Nero and Herodes Atticus, amongst others, all contemplated excavating. Only Nero, however, actually took a pick-axe in his hands, albeit a golden one, and set about the work in earnest. Traces of the digging accomplished by soldiers and prisoners working under his orders, could be
seen until the cutting of the modern canal effaced them, but it must be recorded that this valiant attempt proceeded for a distance of only 4 furlongs before it was abandoned. However, the existence of a canal would have made little difference to the prosperity of Corinth or of Greece. Without it, Corinth was still the richest commercial city on the peninsula because it lay upon the sea route between Italy and the East. With it, Greece would still have remained of minor importance as a trading country.

It was on the eastern part of the road that joined Corinth to Attica that travellers once used to encounter Sciron, "the notorious robber of all passengers". But if there is any truth in the Megarian tale, the Scironian Way got its name from a man who was "no doer of violence, but a punisher of all such, and the relative and friend of good and just men". Pausanias says that the road was first made passable for foot-passengers by Sciron when he was war minister of Megara. Nevertheless, it was still little more than a rough track until the reign of Hadrian. Then that Philhellen constructed a wide and comfortable carriage road, so spacious that two carriages could pass without difficulty on it. When the twentieth century railroad and highway were laid down, Hadrian's work was not yet obliterated. It is still visible in parts if we may believe that certain old substructures of masonry, and ancient wheel marks belong
Macedonia, we find that the main highways presented the appearance of a rough triangle. Leaving Athens on the south, the road moved up to Thebes, and here it split to form the first two sides. One passed along the northern edge of the Corinthian Gulf, curved northeast through Nicopolis and ended at Dyrrhachium (Epidamnus). The other followed the east coast until it entered the land of Thessaly. Here it moved inland a few miles to accommodate itself to the terrain, reached the coast once more by following the valley of the Peneus River, and then, continuing on its northward course eventually came into Thessalonica on the shores of the Thermaic Gulf. The road linking Dyrrhachium and Thessalonica was the third side of the triangle, and the first stretch of the Via Egnatia.

The western arm of this triangle passed through several cities - Dyrrhachium, Apollonia and Nicopolis - which were ports of regular call for ships plying between Italy and Greece. Strabo speaks of two passages east from Brundisium. The northern one, that whose eastern termini were Dyrrhachium and Apollonia, was longer, but the more popular of the two because it led directly to the important Via Egnatia. The other crossed to the Ceraunian Mountains and so to the coasts of Epirus and the Gulf of Corinth. On the coast of Epirus, Nicopolis was the main objective. This city was of recent origin having been founded by Augustus to
to his road, and this conjecture is quite plausible.

Hadrian's munificence brought all of Greece to a state of temporary brilliance, Athens as well. But the old Athens was truly gone forever, and no amount of fine building or other ornamentation would ever bring it back. Philiscus, the comic poet, had once called its harbour an empty nut shell, and that was years before Strabo visited it and noticed only a few houses around the ports and the temple of Zeus Soter. When the trade-centre of the world had shifted to Italy, the Piraeus had been deserted more and more by the merchantmen of Syria, Egypt and Asia Minor, even as Delos had been.

Yet Athens was still exporting goods of a kind to the outside world. Nearby Hymettus and Pentelicus had not yet left off yielding their famous marble, though it was not sent out of the country to the extent it had been once, and Attica was yet producing oil and honey of a quality fine enough to find a ready market. In addition, Athens could always find buyers for copies of famous statues which were shipped out of the country as quickly as they were manufactured. However, with the listing of these few articles, all that can be said of the exports of Athens, has been said.

Directing attention once more to the road-system, and having regard now to all the land as far north as
commemorate his victory over Antony in 31 B.C., and it had gathered its citizens from ruined cities in the vicinity, notably from Ambracia. Though termed a Roman colony, its citizens were predominately Greek and great enough in their number to bear comparison with such Gallic communities as the Remi or the Carnutes. Evidence of the lively trade between Nicopolis, Apollonia, Dyrrhachium, and Italy, can be found in hundreds of inscriptions to the Dioscuri, left by sailors who safely weathered the seas between the two peninsulas.

As for the Egnatian Highway east from Apollonia and Dyrrhachium, it was one of the most important arteries of intercourse in the whole Empire, considered particularly important when the winter season made Mediterranean sailing difficult. As long ago as 148 B.C., it had been laid down as far as Thessalonica, carefully measured and fitted with milestones; in later years it was extended east through Thrace so that travellers could reach Byzantium and Asia Minor over a good road. Usually, however, if there was good sailing weather, a man would break his journey along the highway at Neapolis, the port of Philippi, and from there take ship to the west coast of Asia Minor. It will be recalled that St. Paul crossed between Asia Minor and Macedonia by this route, after seeing the vision of the man of Macedonia at Troas.

In those parts of Macedonia lying around Philippi,
there was extensive mining of gold and silver. Southwest
of Philippi stretched Mount Pangaeus, celebrated for the
metals it yielded, and southeast was situated Datum, also in
a gold-bearing district. Philippi, as a matter of fact,
might be well described as a mining town, which owed its
Existence only to the wealth of metals in the region.

The gold-bearing lands of Dacia, to the north,
were reached by an important off-shoot of the Via Egnatia,
which left the highway at Thessalonica. The road proceeded
northward along the valley of the Axios River until it
reached Scupi. Here it crossed a difficult pass through
the mountains, then gained the valley of the Morava at
Naissus and continued as far as Viminacium on the Danube.
At Naissus it met a great military road whose course lay in
a north westerly direction from Byzantium, and which was used
to provide quick transportation for soldiers moving between
the Danube lands and eastern regions.

In these northern countries there were few cities
of any consequence except, of course, Byzantium, and those
Greek cities which lay on the east coast of Thrace on the
shores of the Black Sea. Histria, Tomi, Callatis,
Dionysopolis, Odessus, Messembria and Apollonia, all of
which at one time had known great prosperity, were willing
subjects of the Roman Empire, welcoming the law-loving
Roman because of the security he brought them.
Byzantium itself is something to be discussed apart and in somewhat greater detail. Its peculiar situation commanding the Black Sea trade and guarding the road between Europe and Asia, gave it at once both a commercial and a military importance. Under the Empire it appears first as a free and confederate city, with absolute freedom to govern its affairs except in the matter of its foreign relations. This condition prevailed until A.D., when Vespasian deprived it of its privileges and made it a part of Thrace and an ordinary provincial town. Yet this action made little difference to the business carried on by the city. Whatever its political status, it always took advantage of the opportunities for trade given to it by nature, and it was successful enough to figure often in the writings of ancient authors. Because the years in which it enjoyed its greatest success fall outside the period of this discussion, it cannot be shown forth in its full development, but must be left as the half-grown thriving town it was until the advent of Constantine.
SUMMARY

1:- Greece played a minor part as a trading country. Its importance lay in the fact that it was the link between Italy and the East. Corinth and the Via Egnatia were vital parts of that link.

2:- The province of Achaea was of little value to Rome. Its products: oil, wine, honey, cloth, marble, horses. The roads through the Peloponnesus were poor and often dangerous.

3:- Corinth was restored by Julius Caesar a century after its destruction by Mummius. It was a thriving city, by reason of its position on a peninsula between two seas. A canal across the peninsula would have made no difference to the prosperity of Corinth or to the poverty of Greece.

4:- Athens, in spite of Hadrian's munificence, was by no means the brilliant centre it once had been. Its harbour was almost deserted, and the goods it exported were few.

5:- Greece's main roads, outside of the Peloponnesian, formed a rough triangle, with the northern Via Egnatia as one of the three sides. On the western side of the triangle were Nicopolis, Apollonia and Dyrrhachium, regular ports of call for ships from Italy.
6: The Via Egnatia moved from Apollonia and Dyrrhachium eastward toward Byzantium. Travellers would often break their journey along it at Neapolis, and there take ship to Asia Minor.

7: Profitable mines existed in Macedonia (in the region of Philippi) and in Dacia. The highway to Dacia from Greece branched off the Via Egnatia at Thessalonica.

8: Byzantium was a city of great commercial and military importance. A free and confederate city until 73 A.D., it was then made a part of Thrace by Vespasian.
NOTES TO CHAPTER II

1:- Louis, Ancient Rome at Work, pp. 152, 153.
2:- Charlesworth, Trade Routes and Commerce of the Roman Empire, p. 76.
4:- Charlesworth, op.cit., p. 20.
5:- Rostovtzeff, op.cit., p. 235; Finlay, Greece Under the Romans, pp. 327, 329.
6:- Seneca, Epist., 14, 3 (91), 10; Non vides, quemadmodum in Achaia clarissimarum urbiurn iam fundamenta consumpta sint nec quocum exstet, ex quo appareat illas saltem quiesse? This is a rhetoric exaggeration, but reveals how the Romans felt about Greece as a whole.
8:- Mommsen, Provinces I, p. 294.
9:- Frazer (on Pausanias) Vol. IV, p. 447 - An even worse pass than the Ladder of the Bey (which is one of the wildest and most desolate tracks in Greece - p. 446) is the Evil Staircase, intermediate between the Ladder of the Bey and the Gyros.
10:- Pausanias, V, 5, 2; VI, 26, 6.
11:- Pliny, N.H., XXXVI, 55.
12:- Paus., II, 3, 5.
13:- Strabo, 8, 5, 7.
14:- Paus., IV, 34.
15:- Ibid., V, 5, 2.
17:- Paus., VII, 25, 10.
18:- Strabo, 8, 8, 1.
21:- Mart. VIII, 28, 9.
23:- Arnold, Studies of Roman Imperialism, p. 201.
24:- Strabo, 8, 7, 5.
25:- A number of small havens - Strabo, 8, 6, 1. Cape Malea a risk - Strabo, 8, 6, 20 - When you double Malea, forget your home.
26:- Pliny, X, 15, (26) - Quia confido, domine, ad curam tuam pertinere, nuntio tibi me Ephesus cum omnibus meis Ùπηρ Μάλαυ navigasse.
27:- Flavius Zeuxis, a Phrygian merchant mentioned in Rostovtzeff, op.cit., p. 536 n. 30.
28:- Strabo, 8, 6, 23.
31:- Holm, The History of Greece, IV, p. 411.
32:- Strabo, 8, 6, 20.
33:- Paus., II, 2, 3.
34:- Ibid., II, 2, 3.
35:- The Dioskos facilitated movement. Strabo, 8, 2, 1; 8, 6, 22; Pliny, N.H., IV, 10.
37:- Pliny, N.H., IV, 10.
38:- Suetonius, Jul. 44.
39:- Ibid., Caligula, 21.
40:- Ibid., Nero, 19; Pliny, N.H., IV, 10.
42:- Charlesworth, op.cit., p. 117.
43:- Mommsen, op.cit., p. 294.
45:- Paus., I, 44, 6.
46:- Ibid., I, 44, 6.
48:- Henderson, op.cit., p. 105.
49:- Ferguson, Hellenistic Athens, p. 458.
51:- Strabo, 9, 1, 15.
52:- Arnold, op.cit., p. 201.
53:- Strabo, 9, 1, 23.
54:- Ibid., 9, 1, 23.
55:- Paus., X, 32, 19.
56:- Strabo, 9, 1, 23.
59:- Arnold, op.cit., p. 198.
60:- Strabo, 7, 7, 6.
61:- Inscriptions to the Dioscuri - C I L, III, 582-4. There are many more inscriptions of this nature in existence.
62:- The Via Egnatia is described by Strabo, 7, 7, 4 ff.
63:- Charlesworth, op.cit., p. 115.
65:- Strabo, fr. 34.
67:- Philippi, a mining town, Mommsen, op.cit., p. 301.
69:- Charlesworth, op.cit., p. 119.
70:- Ibid., pp. 119 - 120.
71: - For Greek cities, see Mommsen, op. cit., p. 302.
72: - Byzantine Empire, pp. 3, 9, 10, 11.
73: - Ibid., p. 8.
74: - Suetonius, Vesp., 8; Byzantine Empire, p. 8.
75: - A few of the ancient authors who mention Byzantium:
   Herodotus (IV, 144); Polybius (IV, 39);
   Tacitus (Ann. II, 53 and XII, 63).
A century before Augustus assumed control of the Empire, the famous will of Attalus III of Pergamum brought into Roman hands the territory which was to be the province of Asia. The acquisition of this valuable country was the signal for a great influx of Roman traders and for a quickly increasing interest in the peninsula, on the part of Rome. In the years following 129 B.C., the other regions of Asia Minor were added one after another to the territory controlled by Rome, some legally, others through the need for suppressing piracy in this quarter, still others through the fortunes of war. By 63 A.D., the whole land was completely under Roman rule.

Rome then had in its hands a vast and rich peninsula, through which trade had passed in certain well-defined channels for centuries. As in the case of Syria, the peculiar geographic structure of the country had had more to do with the shaping of these channels than is usual. In the east, where the peninsula is rooted to Armenia, there is a great rugged mass of highlands. From these, two mountain chains curved westward, enclosing Asia Minor on the north and south, and leaving an extensive central plateau. This
plateau, 200 miles long and 140 miles wide, had scattered over it morasses, small rivers which seemed to have no outlet to the sea, and patches of cold, bare land, unfit for habitation. Toward the west, the plain merges again into mountains that are a spur of the northern chain, and these extend so far as to mingle with the southern range. Two fine navigable rivers, the Halys and the Sangarius, flow through the north, and in the west, smaller rivers, such as the Hermus and the Maeander, mark out definite channels for trade.

This outline of the geography of the country has led to several obvious conclusions. The three main west to east routes were those made possible by the Sangarius, the Halys, the Hermus and the Maeander-Lycus valleys. These the roads followed as far as was convenient, and the northern route then passed without difficulty into Armenia. The two others, whose river valleys were less extensive, would have cut directly through the central plateau to reach the east, but because of its barrenness, they were forced to make wide detours. They thus moved through the peninsula on their separate ways, with mountains close pressing on one side and salt plains on the other, finally breaking through to the sea by the mountain passes about Tarsus.

The western terminus of the south road was Ephesus, the self-styled, though not official, capital of Asia. A few years ago the city was described as a place from which
malarial mosquitoes had driven every human being. This unhappy condition had its origin at the time when Attalus Philadelphus decided to improve the city's harbour. His intention was to deepen it by constructing a mole across the mouth of the River Cystern, but the result of this interference with nature was the eventual ruin of the city. Silt was collecting inside the mole to an appreciable extent even in his reign. In the Roman period, however, Ephesus' commercial supremacy was not yet jeopardized by the condition of the harbour. As Strabo says, "the city, by the advantages which it affords, daily improves, and is the largest mart in Asia within the Taurus".

The main south road moving east from Ephesus, first headed south to the valley of the Maeander River, with its initial stop at Magnesia. Apparently this city was far from enjoying the prosperity of the old foundation on the slope of Mount Thorax, and it is therefore seldom mentioned by writers of the Roman era. Instead the first point generally noted after the road has left Ephesus, is Tralles, "a city of wealthy men". Beyond Tralles the road moved up the Maeander Valley, crossing the river by a bridge at Antioch. The six-arched bridge is often found represented on coins of Antioch, and it is supposed that its construction was due to M'Aquillius. He concerned himself with the improvement and repairs of roads throughout this region just after Rome
came into possession of the province of Asia. Moving along the river bank, the road next turned southeast to follow the tributary Lycus, and came into the city of Laodicea which Antiochus II (261-246 B.C.) had founded to strengthen his hold on the district. When Strabo saw the place, its prosperity was great. Rich grazing land in the territory round about, accounted for the production of a fine quality of wool, for which Laodicea was famous. Ten miles away, on the south road, was Colossae, also famous for its wool dyed dark purple, which was only slightly less valued than that of Laodicea. However there was no comparison in the prosperity of the two towns, since Laodicea had been planted so close to its neighbor as to rob it of most of its wealth. Leaving these two towns, the road ascended gently to a plateau, passed the bitter salt lake called Analva, and turning northeast, entered Apamea, "under Augustus, the most considerable city of the province of Asia next to Ephesus". Pisidian Antioch, strictly a Phrygian city towards Pisidia, lay next on the road, then Philomelium, after which the road moved south through Lycsonia to Iconium. In Strabo's time Iconium was still a small place, but when Pliny wrote of it, it had assumed considerable proportions. From Iconium, still pursuing a southward course, the road passed Derbe and Laranda, finally turning north in order to reach the entrance to the Cilician Gates at Tyana. Built on the mound of
Semiramis, this town was the guardian of the northern entrance of the "Geulek-Boghaz" (native name of the Cilician Gates), and as such was strongly fortified with stout walls. The pass itself, just wide enough to admit a loaded camel, was in use only between the middle of March and the middle of November. For the rest of the year, great drifts of snow made passage through the Taurus Mountains impossible. The southern guardian of the pass was Tarsus, 30 miles away on the Cydnus River, a few miles beyond which the southern road passed into Syria.

To reach Syria through the Amanus Mountains, from Tarsus, it was possible to do one of three things. By following the Pyramus River eastward, one eventually reached the Pylae Amani (the Bogtche Pass), and, passing through it, could turn south toward the heart of Syria, or make for Zeugma, if desired. Secondly, one might pursue the Cilician and Syriac coasts as far as Myriandus, then turn east into the mountains, and cut through them by the Pylae Syriac. The third method was to continue on past Myriandus until Seleucia Pieria was reached, from which point it was easy enough to make for Antioch along the valley of the Orontes.

Tarsus, as the eastern terminus of the main south road through the peninsula, was a half Greek, half Asiatic city, a restless spot which had business relations with every city in the world. The Cydnus River, on which it was
located, poured its waters into an inland lake called Rhegma, to form one of the famous ports of the ancient world. The foundations of its warehouses, docks and arsenals, can be seen even now in the mud-filled lake.

The city of St. Paul was particularly noted for its weaving of tough cloth made from goats' hair. This hair grew luxuriantly thick in the cold atmosphere on the mountain sides. The tent-cloth the inhabitants made of it, was called **cilicum** because of its place of origin (Cilicia).

It is proposed now to return to the west and follow the second main highway across the country. The old Royal Road built by Darius "the organizer" (521-485 B.C.), as part of his scheme to tie the parts of his Empire together, had had its western terminus at Sardis. That part which lay in Asia Minor, beginning at Sardis, first followed the valley of the Hermus, and then, sweeping northward, touched the Halys River near Pteria (Boghaz-keui), and travelled thence to Melitene. After Lydia's glory was gone and Miletus and Ephesus had become the prominent centres, traffic deserted the valley of the Hermus, to a large extent, for that of the Maeander, coming back onto the old route farther east. Herodotus, writing in the fifth century, describes the Royal Road as leading from Ephesus instead of Sardis, and moving northward through Apamea, Synnada and Pessinus to Ancyra (Ankara), and then to the Euphrates at Melitene. The
Royal Road, declined in importance after the conquests of Alexander, with the result that in Roman times it was much less frequented than the southern road previously described.

From Synnada, a town lying on the central road, came marble renowned for its quality. It had been quarried for many years before the Roman occupation of the country, but when operations were in Roman hands, far larger blocks of it were cut, and whole pillars were shipped to Rome by way of Ephesus. Many times it is mentioned by Roman writers of the age. In Martial's epigrams, the luxury-loving Tuoca is found building baths of marble obtained from Phrygian Synnas.

The northern country was served by a highway which may be thought of as a continuation of the road running through Thrace. On the eastern side of the Bosporus, the road, after leaving Chalcedon, made for Nicomedia. Under Diocletian, Nicomedia was the most important city in Asia Minor, a kind of northern Ephesus, for years greater than Byzantium. From Nicomedia a branch road turned south to join the central route at Ancyra. The main stem continued from Nicomedia through Claudiopolis, Cratea, Amasea, Comana, and Nicopolis to Satala, with a spur joining Amisus and Sinope, from Amasea.

The southern branch, just mentioned, was to become one of the most important roads in Asia Minor when the seat of Empire was shifted from Rome to Byzantium. Since pilgrims
regularly made their way by it to the Holy Land. It is often described as the Pilgrims' Way. When described as such, it should be visualized not as a mere branch road to Ancyra, but as a great highway leading from Nicomedia through Nicaea, Dorylaeum, Ancyra, Archelais and Tyana to Tarsus, and thence to Syria.

In the northern country through which the third main highway ran, grew extensive forests of maple, oak, fir and larch, timber for building ships and fine wood for fashioning furniture. Over the whole of Asia Minor, in fact, timber could be found in quantity, except in Lycaonia and Cappadocia. Pontus was a particularly valuable province with its fisheries, orchards, whose fruit took the eye of Lucullus, its wax, soft fleeced sheep, and resinous plants and gums, besides great herds of cattle.

So much concerning the main east-west highways whose many branches must be left unmentioned. There was another route of great antiquity, moving north and south, joining Simope and Amisus on the Black Sea coast with Tarsus. The road moved first to Amasea and then forked, the western section going to Tavium, the eastern to the religious centre of Comana and thence to Sebastea. The west and east branches converged again at Mazaca, a few miles south of the Halys River in Cappadocia, whence six days' travelling brought one to Tarsus.
Sinope and Amisus, at the north end of the road, were of Milesian origin, and they had prospered because of the great resources of their region. In the Imperial period, Sinope's prosperity was dimmed to a certain degree, but it found a comfortable existence possible through the revenue obtained from tunny fisheries and from maple and mountain nut-tree forests. In earlier days, when it had been the port of Cappadocia, it had given its name to a red earth employed in making pencils, brought out of Cappadocia for export to Greece and Italy. Even when Cappadocia's goods were sent west to the harbour of Ephesus, the earth continued to be known as Sinopic earth, a memorial of the old importance of the port. The main features of Asia Minor's road system have now been described. Domitian is perhaps most outstanding among the emperors who had a hand in repairing its highways since he reorganized all the roads, in every quarter of the peninsula. The Flavian dynasty took a particular interest in keeping the northern roads in good condition, and under Nerva and his successors, this interest continued, not to assist trade, but for military reasons. Nerva built a good road between Amasea and Tavium and left a fine bridge over the Halys as an indication of the renewed importance of the northern roads leading to Byzantium and Pannonia. Along three roads centering in Ancyra, milestones of Hadrian are in evidence, two of these roads being sections of the main
northern route lying between Tavium and Juliopolis.

It must not be forgotten, however, that much traffic passed along the coasts of the peninsula, as well as through the interior. This was particularly true of the west and south coasts, but, strictly speaking, it was the west coast where the majority of the chief harbours lay. East of Cyzicus along the north coast was Amisus; no other harbour in this region was of great importance. The south coast could boast of Tarsus, but Myra, Attalia, Side, Celenderis, Seleucia - might all be left un-named, for although they served the coast trade, they were otherwise of minor importance. The great harbour cities, Cyzicus, Mytilene, Chios, Smyrna, Ephesus, Miletus and Rhodes, lay on the west, along a shore which particularly invited coastal traffic. Mytilene, Lesbos' largest city, had two harbours, the southern a close harbour where 50 triremes could come to anchor at one time, the northern large and deep with a mole protecting it. At both Rhodes and Chios were harbours which might be closed, Chios possessing a roadstead for 80 ships, and good anchorages. Ephesus' constant rival Smyrna, had a good harbour that could be closed. Miletus, whose vessels once sailed as far as the Atlantic, was not the great power it had been 500 years before, but it continued to enjoy a certain amount of prosperity when Strabo was writing, and was still mentioned as a place of some importance in the time of
Pausanias. Voyaging in these western waters was cheaper, frequently more convenient than travelling by land, and almost always preferred by the traveller.

From the southwest coast and from the islands nearby came many varieties of wines, which were justly in great favour because of their fine quality. Ephesus' wine was poor, and Samos produced none at all, but Metropolis, Tmolus, Cnidos, Smyrna and Ariusa have all been mentioned by one author or another as producers of excellent wines. Commerce in wine played a leading part in the economic life of Asia Minor as it did in that of Greece and Italy. Both Greece and Asia Minor helped to keep supplied the eastern provinces of Rome, and particularly the northern shores of the Black Sea.

Beside the wealth derived from the growing of the vine, there was much profit won from the raising of sheep throughout Asia Minor. Once Milesian wool had been much sought after as the finest the world could produce, but in these years it had lost ground in competition with the Laodicean product. Laodicea had later to vie with north Gallic towns in the production of wool, and actually sent out "imitation Nervian cloaks". To dye the wool certain vegetable dyes were frequently employed instead of coccus or murex, and a fine result was obtained by soaking the wool in the water of Hierapolis. Otherwise, dye from the
purple-fisheries off Miletus, or coccus, might be used. Strictly speaking coccus was not the berry of the scarlet oak as its name would indicate, but an insect, this fact as yet undiscovered by its users. The purple-seller Lydia, whom St. Paul met in Greece, was from Thyateira, a town a few miles north of Sardis, where there were famous purple dye-works.

Finally, a few words may be said of the various minerals to be found in the peninsula and in the island of Cyprus off its coast. Quite contrary to general expectation, there is nothing to be said of gold mining in Asia Minor during the Roman period, since the gold mines once so productive, were now exhausted. However, there was still iron to be had in the northeastern region about the River Cerasus and in the hills above Pharnacia. Sulphide of lead was found in Cilicia, and red sulphide of arsenic near Pompeiopolis. At this latter point slaves, men and women alike, grubbed for the red sulphide, and remained at their toil only a short time before disease or death carried them off. At Ephesus was mined the finest red lead in the Empire, superior even to that of Sisapo in Spain, and from Cappadocia came talc, used frequently in the making of windows. More important than any of these, however, was the copper brought out of Cyprus (the copper island). Only a few regions in the Mediterranean could produce copper in any quantity, and Cyprus was one of these, and one of the most important. Even at the present day,
copper is mined on the island by an American company, working on the very site where the labourers of Herod the Great once toiled. This fact seems to bear out the truth of the statement made by Strabo, to the effect that Cyprus had inexhaustible mines of copper within it. Naturally, the making of bronze occupied many of the inhabitants on the island, and there was any number of workshops for the production of bronze articles scattered throughout the length and breadth of the territory.

SUMMARY

1: Asia Minor was acquired by Rome in the years between 129 B.C. and 63 A.D.

2: Three main west-east highways followed the paths laid down by nature. They were:

a) the south road - Ephesus ... Magnesia ... up the Maeander Valley to Laodicea on the tributary Lycus ... Apamea ... Pisidian Antioch ... Iconium ... Tyana ... Tarsus.

b) the central road - Sardis ... up the valley of the Hermus ... northward to Ancyra ... Melitene on the Euphrates. Later the route had its western terminus at Ephesus instead of at Sardis.

c) the northern road - Nicomedia ... Claudiopolis ... Cratea ... Amasea ... Comana ... Nicopolis ... Satala ... then into Armenia. An important branch, southward from Nicomedia to Ancyra.
The southern road was of greatest importance as a commercial highway, the northern road as a military highway. The central road was least important of the three.

3:- The outstanding north-south highway joined Simope and Amisus on the Black Sea to Tarsus.

4:- The chief cities of Asia Minor:

   Ephesus - "the largest mart in Asia within the Taurus".

   Tarsus - had commercial relations with every city in the world. Splendid harbour in Lake Rhegma.

   Nicomedia - leading city of Asia Minor under Diocletian.

5:- Leading products: wine, fish, fruits, timber, wool (and the secondary products thereof), marble, and some metals, particularly copper.

6:- Reorganization of all the roads took place under Domitian. The Flavian emperors were interested in the northern roads for military reasons, and their interest was continued by Nerva and his successors.

7:- There was heavy traffic along the sea coasts, particularly on the western coast, where Cyzicus, Mytilene, Chios, Smyrna, Ephesus, Miletus and Rhodes were situated.
NOTES TO CHAPTER III

4: Hogarth, Ionia and the East, pp. 64, 65.
5: Skeel, Travel in the First Century, p. 117.
7: Strabo, 14, 1, 24.
10: Strabo, 14, 1, 42.
12: Skeel, op. cit., p. 119.
13: Strabo, 12, 8, 16. See also Revelations III, 17, - I counsel thee to buy of me (not the glossy black garments of Laodicea, but) white garments that thou mayest clothe thyself. Cf. also Aristophanes, Oresthes, I. 493.
14: Strabo, 12, 8, 16.
15: Strabo, 12, 8, 15.
16: Ibid., 12, 6, 1.
19: Strabo, 12, 2, 7.
20: Charlesworth, Trade Routes and Commerce of the Roman Empire, pp. 98, 99.
22: Strabo, 14, 5, 10.
23: Morton, op. cit., p. 58.
24: For socks and leggings of cilium see Martial, XIV, 141, for goats' hair cloaks see Cicero, Verr. II, 1, 95.
25: Huart, Ancient Persia and Iranian Civilisation, p. 54.
26: Pteria was the ancient Hittite capital. Laistner, A Survey of Ancient History, p. 54.
28: Herodot, V. 52; VIII, 95.
29: Charlesworth, op. cit., p. 79.
30: Horace, Odes III, 1, 41.
31: Martial, IX, 75, 7.
32: Pliny, Ad Traj., 41; Cf. Paus., V, 12, 7.
33: Charlesworth, op. cit., p. 83.
34: Skeel, op. cit., p. 126.
35: Pliny, N.H. XII, 56; XVI, 197. See also Arrian, Perip., 5, 2 and Vitr. II, 1, 4.
37: The products of Pontus;
Fisheries—Strabo, 7, 6, 2; Pliny, N.H. IX, 44 ff.
Bees and Wax—Pliny, N.H. XI, 59 and 65; XXI, 77.
Sheep—Strabo, 12, 3, 13.
Resinous plants and gums—Pliny, N.H. XII, 47, 49, 72.
Cattle—Plutarch, Lucullus, 14.
38: Herodotus, II, 34.
39: Strabo, 12, 2—7, 8, and 9.
41: Skeel, op.cit., p. 131.
42: Strabo, 12, 3, 11.
43: Ibid., 12, 2, 10.
44: C I L, III, 312, 318, and 14184.48.
45: C I L, III, 14184.44.
46: C I L, III, 13525, 14402 and 14184.56. 60. 61.
47: See the voyages of St. Paul along these coasts,
Acts 20, 1—21, 3. See also Plutarch, Pompey, 76 for
Pompey's flight from Pharsalus to Egypt, and Tacitus,
Ann. II, 54—55 for the sightseeing voyage of Germanicus.
48: Strabo, 13, 2, 2.
49: Ibid., 14, 2, 5.
50: Ibid., 14, 1, 35.
51: Ibid., 14, 1, 37.
52: Laistner, op.cit., p. 125.
53: Strabo, 14, 1, 6.
54: For wines mentioned see Strabo, 14, 1, 16 and 35; also
Virgil, Georg., II, line 98.
56: Ibid., p. 67.
57: Sheep raising in Asia Minor—Strabo, 12, 6, 1. cf. Pliny,
N.H. XXIX, 33, Herodotus. V. 49.
Cicero, Verr., II, 1, 86; Pliny, N.H. VIII, 190.
59: The Edict of Diocletian XIX, 27 in An Economic Survey of
60: Colossene red dye in Strabo, 12, 8, 16. Root dyes of
Hierapolis, — 13, 4, 14.
61: Strabo, 13, 4, 14.
63: The ancient sources of gold in Asia Minor, e.g., the
mines of Astyra near Abydus (Strabo, 13, 1, 23);
Lampsacus (Pliny, N.H. XXXVII, 193), Atarneus
(Strabo, 14, 5, 28), the washings of the Pactolus
(Strabo, 13, 4, 5), and the mines of Mount Tmolus
(Strabo, 14, 5, 28), were worked out and abandoned.
64: Strabo, 12, 3, 19.
66: Strabo, 12, 3, 40.
68: - Strabo, 12, 2, 10.
69: - Ibid., 14, 6, 5.
70: - Charlesworth, op. cit., p. 88.
72: - Some Cyprian copper mines were worked under Augustus as a gift or lease to Herod. Josephus, Antiquitates Judaicae XVI, 4, 5.
73: - Strabo, 14, 6, 5.
CHAPTER IV

THE SILK ROADS TO CHINA

Two long and circuitous overland routes brought the Chinese luxury, silk, into the Roman Empire. The purpose of the following discussion is to reveal just where these routes lay, and how they became known to western traders through exploration and conquest.

The Roman interest in the silk roads began about the reign of Augustus. Before that time, silk was very little known. Only small quantities of it had as yet been brought out of China to the west, and that which did reach the Empire was still in the raw state. The great demand for silk began in the reign of Tiberius (A.D. 14-37) and continued unceasing after that time in spite of all edicts passed against its use.

The penetration of Roman traders to the Far East by the overland routes began in earnest after 20 B.C., when Parthian hostility toward Rome weakened temporarily, and western peoples were allowed to enter the land beyond the Euphrates. Greeks were the first explorers who went into this country at the command of Augustus. With Parthia's consent, these made their way from Antioch down the Euphrates River to Greek Seleucia and Ctesiphon, thence
through Iran, by the Caspian Gates to Merv and Alexandria of the Arachosians (Kandahar). Isidore of Charax followed this same route, compiling a list of the stations along the silk road for Augustus, but, like the Greeks, he concluded his exploration at Kandahar. Whether at this time the natives of the country beyond made further travel impossible, or whether the men were unwilling to risk their lives in the difficult country to the east, is uncertain. The fact remains however, that for the first two centuries of the Empire, Rome's acquaintance with this land grew slowly. Across the entrance to the eastern country lay the Parthian territory, a formidable obstacle, and within central Asia there were always disturbances to hamper the activities of western merchants.

A logical point for beginning the discussion of the first route to the East is at Zeugma, the famous North Syrian bridge over the Euphrates. Before the reign of Vespasian, this bridge was guarded by Rome as its one and only crossing of the river. As long as Commagene and Cappadocia were client states, the crossings at Mêlitene and Samosata were out of Roman hands, and the bridge at Zeugma had to transport the larger part of Rome's eastern merchandise.

Once across the river the traveller had a choice of several roads by which to reach Seleucia and Ctesiphon,
where began the trek to the East. The fact that there were several routes, leads one to the conclusion that the Euphrates Valley was by no means ideal as a highway, and such, in fact, was the case. In addition to the natural disadvantages of using the river as men used the Nile, there were troublesome tribes living along the river banks, waiting to squeeze the last possible denarius out of merchants passing through their territory. This fact, as well as the heat, drove men to make their tracks farther north. Therefore, after leaving Zeugma and reaching Anthemusias, the merchant pursued one of these routes:

a) to Nisibis, via Carrhae and Resaina, or via Edessa, then to Nineveh and Ctesiphon;

b) to Thergubis via Carrhae or via Ichnae and Nicephorium, then through the country of the Scenite Arabs to Seleucia and Ctesiphon;

c) to Seleucia and Ctesiphon along the valley of the river itself, with less convenience.

A word should be said about the neighboring foundations of Seleucia and Ctesiphon. Both lay on the banks of the Tigris, a few miles northeast of the decayed city of Babylon. The first mentioned was a city of Greek origin, the other, the winter capital of the Parthians. Although both were trade centres of much importance, and although Strabo speaks favorable of the size and magnificence of
Ctesiphon, a comparison of the two reveals that Seleucia alone was of a size sufficient to warrant its being called a city, and that Ctesiphon was merely a thriving town. In Seleucia was gathered a throng of Macedonians, Syrians, Greeks and Jews, and in the hands of these men was all the power and all the wealth that could possibly be gained from the advantageous position of the city. It was no idle chance that caused Babylon, Seleucia and Bagdad to grow up in their succeeding ages almost on top of one another.

East of Ctesiphon travellers faced a steep climb up the Zagros Mountains before reaching the Iranian Plateau. This plateau was, and is, throughout much of its extent, a dangerous region in which to travel. Therefore, there was no bold track across it to China. Instead, the road leading toward the East moved north to skirt the difficult territory, almost brushing the Caspian Sea on its southeastern shore. To be more explicit, the track cut through the plains of Media Rhagiana, moving toward the Caspian Gates. Past Apamea, it went on to the Parthian city of Hecatompylos, then continued to Merv. As this city marked the limit of Isidore of Charax's travels eastward, one must turn to the accounts of Maes Titianus for further information about the eastern road.

The agents sent out by Maes Titianus to meet Chinese traders (c.120 A.D.) penetrated more deeply into
the East, splitting into two parties after leaving Merv.
One group pursued the northern road across the Oxus River
to Maracanda (Samarcand), ending its journey at Kashgar;
the other larger group made for Bactra, then for the
"Stone Tower", and came back to the northern road at
Kashgar. Maes' agents went very little farther, but in later
years other men, following in their tracks, reached even
Lop Nor and Miran.

Bactra (Balkh) was a trade centre with a mighty
past even when Alexander used it as a base from which to
invade India. At the present time, men call it the
"Mother of Cities", and perhaps they are justified in their
claim, as will be agreed after considering its interesting
geographical position. West of it stretched the road to
Parthia, just discussed. West also lay the Oxus River.
South and slightly east, the valley of the Indus formed
another spoke in this wheel made of routes, and northeast
was the highway to China. This Bactra, which was no mere
barbaric trading post, played a leading part in the trade
of the ancient East.

When the traveller left Bactra for the "Stone
Tower", he followed a road which the Bactrian monarchs
Demetrius and Menander, as well as the Kushan kings, had made
available to merchants. The "Stone Tower" itself, overhung
the Upper Yarcand River, and was simply a fortified town
perched on a crag, a place thought to be Tashkurgan in
Sarikol. Here the western people found Parthians, Indians, Kushans and the Chinese with their bales of silk.

How little the Greeks and Romans had known of the Chinese can easily be imagined. By Nero's reign the Romans had not as yet made direct contact with them, but they realized that such a race lived north of India and that they carried on a silent trade with the West. The Chinese, however, seem to have been a venturesome people at this stage in their history. They knew vaguely of the existence of Ta-ts'in, which was the Roman Empire, largely made up of Syria! They knew also of Chi-ih-San (Alexandria). In order, then, to satisfy their curiosity about the West, they dispatched an ambassador, Kan Ying, to Parthia and Syria in 97 A.D. This ambassador reached Antioch, would have reached Alexandria and even Rome, had he not been dissuaded by sailors. These sailors described the pangs of sea sickness and home sickness to him so vividly that he would not venture on the sea "where ships sailed with three years' provisions on board". Instead he turned back at Antioch, having seen enough to convince him that the men of the West were honest. His visit to Antioch is supposed to have accounted, at least in part, for Maes Titianus' interest in the silk route, for this merchant is thought to have been one of the Macedonian Greeks residing in Syria at that time.
So far, the route through Parthia has dominated this discussion, and the northern passage has been passed over without comment, for no other reason than that its development came at a later period. It came into the hands of Rome gradually, as the Romans concerned themselves more and more with the affairs of Armenia and Caucasia, and as they turned their military campaigns to more use than the acquisition of security in this region. This other route to the Far East was considered necessary by Rome because of her chronic quarrel with Parthia.

By Augustus' reign, the Romans were still largely unacquainted with the territory lying beyond the Black Sea, along the route in question. Though Greeks had once explored the heights of the Caucasus and the steppes of the Sauromatae, all their findings had now been forgotten. The Caspian Sea was regarded as a large bay running into a northern ocean. That this ocean existed was "proved" by the fact that Indians had been found living among the Suevi in Germany and also by the fact that no less an authority than Pliny believed that the voyage from India to the Caspian had been made. Thus, the Volga was to remain an ocean until Nero's reign, when it is known that some recognized its rightful proportions, though no man had yet explored it. Hadrian played his part in furthering knowledge of the northern route by making the Black Sea a Roman lake, by
having its coasts surveyed, and by ordering exploration to proceed from bases such as Phasis. By approximately 150 A.D. the exploration was complete, and men were no longer confused about the nature of the Caspian. The lands lying east and north of the Jaxartes, however, remained unexplored and later years saw no further investigation of these eastern regions owing to increasing troubles in the West and to the activities of hostile tribes in Asia. Exploration ceased then, but exchange over both inland routes continued for many years.

In detail, the northern route was as follows. After the merchant had left the shores of Asia Minor behind, his first stop was at Phasis, a town in Colchian territory. From Phasis, the river of the same name stretched east to within a few miles of the Cyrus River, but, as the Phasis was navigable only to the fortress called Sarapana, there was a four day journey by land between the two rivers. By Vespasian's time there was a Roman garrison stationed in this district at Harmozica, where the Caucasian Gates (the modern Dariel Pass) could be guarded against raiders. To reach the Caspian from the region about Harmozica, it was possible to choose any of several parallel valleys, which brought the traveller to the sea just north of the embouchure of the Araxes. This river also formed the conclusion of a more southerly road leading from Trapezus
and passing through Armenia. As this route, however, ran through more hostile territory, Rome was less concerned with it. With the journey to the Caspian completed, the next step was to reach the mouth of the Oxus, which in some manner was connected with this sea. The course of the Oxus varied throughout the centuries, and on maps of the ancient world it is generally depicted as flowing northward into the Oxianus Lake. Nevertheless, we have for proof of its westward course, beside the natural features of the country, the words of Herodotus and Strabo, and the fact that in the thirteenth century A.D., man found it possible to turn it west again. By sailing eastward with the Oxus, Samarkand was reached, or Bactra, where the southern Parthian route and the northern water-route merged.

Routes thousands of miles long have been traced, and all for the purpose of following the travels of a mysterious article called silk. It was mysterious, that is, to the Romans, for the Chinese guarded the secret of its source until the sixth century A.D. Europe, until that time, guessed that it came from the bark of trees, from fleeces combed from leaves, from flowers, from spiders, even from beetles. The secret finally slipped out when two Persian missionaries, whose thoughts were not entirely distracted from things of this world, kept their eyes open while travelling in China. In a second journey made by the two, the ancestors of all future European and western Asiatic
silk worms were brought out of China in a hollow cane and deposited at Constantinople. The sixth century is beyond the proper period of this discussion however, and further investigation of silk and silk routes must be abandoned.

SUMMARY

1:-- Roman interest in silk and the silk roads began about the time of Augustus. By Tiberius' reign the use of silk was well established among the wealthier classes.

2:-- Exploration of the first silk road to China began in earnest after 20 B.C. Greek explorers, working for Augustus, reached Kandahar, as did Isidore of Charax. The agents of Maes Titianus continued the exploration (c.120 A.D.) and reached some point a few miles beyond Kashgar. Later years saw western travellers even in Lop Nor and Miran.

3:-- The first silk road in detail: Zeugma ... Seleucia and Ctesiphon ... across the Zagros Mountains to the Caspian Gates ... Hecatompylos ... Merv ... (then by either of these roads) -
   a) ... Samarcand ... Kashgar ... Miran ... Lop Nor.
   b) ... Bactra ... Stone Tower ... Kashgar ... Miran ... Lop Nor.
Seleucia and Ctesiphon enjoyed great commercial advantages because of their fortunate position on the trade routes. Seleucia was the greater of the two foundations.

Bactra had been a great trade centre for centuries before it had any contact with the Roman Empire. To visualise its position in Asia, imagine it as the hub of a wheel, from which the road to Parthia, the Oxus River, the Valley of the Indus, and the highway to China radiated, as the spokes of the wheel.

The Romans never became properly acquainted with the Chinese. Some effort was made by the Chinese to gather information about the West in 97 A.D., when they dispatched an ambassador to Parthia and Syria.

The second overland route to China was developed because of the need for avoiding the Parthians. Its course lay from the coast of Asia Minor to Phasis ... to the Cyrus (note parallel valleys) ... the Caspian ... the Oxus ... Samarcand or Bactra.

Exploration of the land up to and surrounding the Caspian Sea was complete by 150 A.D. The lands east and north of the Jaxartes were not explored in the time of the Roman Empire.

Silk worms were brought from China to Constantinople in the sixth century A.D. All future European and western Asiatic silk worms were descended from these.
NOTES TO CHAPTER IV


2:- Aristotle, Hist. Anim. V, 19; Certain of the women unwind and reel off the cocoons of these creatures and then they weave a fabric of them, a Coan woman, Pamphila, daughter of Plateus, being credited with the first invention of the fabric. Cf. Pliny, N.H., XI, 76 - 78.


4:- Cary and Warmington, The Ancient Explorers, p. 159.

5:- Ibid., p. 159.

6:- Isidore's work is contained in Geog. Graec. Min.

7:- Pliny, N.H. V, 86 - transitu Euphratis nobile. Tacitus, Ann. XII, 12 - Zeugma, unde maxime pervius annis. Zeugma was the most usual place of crossing, Dio. XLIX, 19, 3.

8:- Suet. Vespasian, 8.

9:- Alexander the Great avoided the river valley as far as possible, after crossing the Euphrates at Thapsacus on his way to the East. For his route, see map facing p. 148 in The Ancient Explorers.

10:- Strabo, 16, 1, 27.

11:- Arrian, Anabasis III, 7; Dio. LXVIII, 19.


13:- Strabo, 16, 1, 16.

14:- Ibid., 16, 1, 16.

15:- Tacitus, Ann. VI, 42; Josephus, Antiquitates Judicea, XVIII, 372.

16:- Isid., 3; Huart, Ancient Persia and Iranian Civilisation, p. 10.


19:- Merv was the limit of Isidore's travels eastward. Isid., 14. Isidore travelled as far as Kandahar, Isid. 19, but this lay to the south, off the silk road.

20:- For Maes Titianus see The Ancient Explorers, p. 161. The travels of Maes' agents are recorded by Ptolemy, Geog. 1, 12, 8.

21:- At Lop Nor and Miran, Sir Aurel Stein found Egyptian, Greek, Roman, Christian, Byzantine and especially Syrian influence in art. Ancient Explorers p. 162. He found also a small bale of silk, perfectly preserved. Charlesworth, Trade Routes and Commerce of the Roman Empire, p. 111.
23: Keane, Asia, Vol. II, p. 34.
24: Rawlinson, India and the Western World, p. 115.
25: Ptol. 1, 12, 8.
26: The Ancient Explorers, p. 160. For the silent trade of the Chinese, see Ammianus Marcellinus, XXIII, 68.
27: Ta-ts'in and Chi-hn-San are mentioned in The Ancient Explorers, p. 83.
28: Ken Ying in Hirth, China and the Roman Orient, not available to me. Reference in Charlesworth, op.cit., p. 109.
29: Hirth, 39.
31: Mommsen, op.cit., p. 21.
33: Ibid., p. 160.
34: Pliny, N.H. VI, 58. Strabo, 11, 11, 6- Patrocles asserts that persons have passed round by sea from India to Hyrcania. Strabo himself is doubtful of the possibility of such a voyage.
35: The Ancient Explorers, p. 163.
36: Ibid., p. 163.
37: Ibid., p. 163.
38: Ibid., p. 163.
39: Strabo, II, 2, 17.
40: Four days to Cyrus Valley - Strabo, 11, 2, 17. Five days - Pliny, N.H. VI, 52.
42: Araxes' embouchure-Strabo, 11, 4, 2. Note that the Araxes, as shown by Keipert, flows into the Cyrus, as a tributary.
43: Charlesworth, op.cit., p. 106.
44: For shifting course of the Oxus, see Huart, op.cit., p. 5. The author discusses the statements of Herodotus and Strabo and refers to the course of the Oxus in the thirteenth century A.D.
45: For various beliefs concerning the origin of silk see Silk Manufacture, pp. 7, 8. Paus., VI, 26, 4, 6- 8 calls silk a moth product. Virgil, Georg. II, 121 - Velleraque ut foliis depectant tenuia Seres. Aristotle knew a great deal more than Virgil about the origin of silk as is revealed in his Hist. An. V, 19.
46: Silk Manufacture, pp. 11, 12.
Syria is a small country, lacking most of the properties which might be expected to arouse the cupidity of neighboring nations. Rome's interest in it was provoked not because of any profitable resources it contained, but largely because of the fact that it provided a convenient land bridge between Egypt and Asia Minor, and was conveniently close to the Euphrates River and to the Red Sea.

Routes followed in Syria were old centuries before the coming of the Romans, and, since they were naturally determined by the physical features of the country, this latter subject deserves some consideration as a prelude to the chief topic. A series of lofty mountain chains stretch down through Syria and leave deep valleys for transportation. The longest of these depressions, caused by faulting on a gigantic scale, forms the Jordan Valley and Dead Sea basin, and farther south a vast rift, which is one of the hottest and most desolate regions in the world. In its southwest extremity the rift is largely submerged by the Red Sea, thus forming the Gulf of Akabah. To the east, the land merges into a flat stony country and then becomes desert, but the west coast strip, particularly the rain-drenched Phoenician coast, left nothing to be desired in fertility.
The only practicable route northward from Egypt through Syria naturally followed this fertile passage way, keeping entirely to the coast until it reached Gaza. At this point the road branched, and while one part of it continued on up the coast past the harbour cities, another moved east and south to reach the important centres of Jerusalem and Petra, as well as the port of Aelana on the Gulf of Akabah. Beside the coast road north from Gaza to Antioch, another route to the northern capital, used to a greater extent, cut eastward from Caesarea, and crossing the plain of Esdraelon, pursued a course along the valley of the Upper Jordan until it reached the River Litas. The Litas and Orontes valleys extend for well over a hundred miles in an unbroken line between the Lebanon and Antilebanon ranges, and so they provided an easy means of travel past Chalcis, Heliopolis and Emesa to Antioch. The third of the great north-south highways began with the harbour city of Aelana (Aila) and moved up the Araba Valley (Wadi-el-Araba) to Petra. Here the road divided swinging west to Gaza, as mentioned before, and north to Damascus, Palmyra and the Euphrates. Much used thoroughfares likewise crossed the country at all convenient points to link prominent centres with each other and with their respective ports. Such links joined Damascus to Caesarea and to Sidon, and great inland centres such as Antioch and Beroea with each other.
Good communication had always existed in Syria and highways needed only the veneer of the Roman road-layer at certain points, generally within the cities, and where swift movement of troops was required. Though roads were frequently impassable for wheeled vehicles, their quality may be judged by the fact that Syria is, at the present day, poorer with respect to communication than in the time of the Roman Empire. For example, Aurelian, on his way to Palmyra, used a road that has so deteriorated that it could not be traversed by an army at the present time. As routes grew more remote, their trail was marked only by stones at the side of the road, and for crossing the desert, precautions much like those taken to-day had to be observed.

In the event of a desert journey, water was a primary consideration and charges for it were made accordingly. Dues for the use of wells by merchants watering their camels and filling water bottles, were met by joint contribution, or sometimes by the Synodiarch (caravan leader) if he wished to win popularity. When merchants failed to pay their dues, whether for water and food, or for merely spending a night in some settlement, pledges might be taken and sold after a certain lapse of time, if such action was considered proper by the resident Roman Juridicus.

An abundance of native materials, for instance, black basalt in the Hauran, made the laying of good roads comparatively easy in the western parts of Syria. In the
second century A.D. Antioch and Chalcis were joined by a road, still existing in many sections, which was laid in solid rock and paved with great limestone blocks. St. Chrysostom mentions this highway and tells us that Persian or Armenian merchants were much more wont to use the road than the Syrians themselves, explaining that trade was carried on largely by the former rather than by the native people in these years. He also remarks on the benefits of Roman occupation, not a very ordinary thing in a Syrian writer, declaring that whenever heavy rainfall tore holes in the road, the Romans carefully had it repaired, and at frequent intervals had set up resting places (khans) by the way. These khans were necessarily crude buildings, but at least they provided a roof for the traveller and a stable for his animals.

Many improvements in the road system were added by Trajan, to whom the Syrians owed most of their milestones. This Emperor, much like Augustus, had a genius for organization and left traces of his enthusiasm and vigor in almost every province of the Empire. In Syria, following a plan proposed by Tiberius years before, he annexed the tetrarchies of the Hauran and the Nabataean territory, presenting that region with a splendid frontier road, which gathered up all the traffic coming from Aelena and the ports of the Red Sea to Damascus and the north.
Diocletian also attained some fame as a road-builder in Syria, where he constructed, in one instance, a paved road northward from Palmyra to the Euphrates crossing at Sura, to provide a proper means of connection between Osroene and Arabia and Palestine. In addition, the frontier road running through Petra and Bostra to Palmyra and Circesium were strengthened by a number of forts of which the most important was castra praetorii Mobeni (Kesr Bser), Deir-el-Kahf (some 20 miles southeast of Bostra) and Circesium itself. A new type of architecture was used in this construction. The forts were built with square towers and small posterns, a style echoed elsewhere by architects of this period, and to be found, in one instance at Vitodurum in Switzerland.

Few ancient authors have left clues concerning speed on these routes and on the seas about Syria, and when there are definite accounts, they are too often merely of royal travellers who would be supplied with extraordinary facilities. A man travelling by foot on these roads would be limited, in the judgment of Sir William Ramsey, to a speed of 18 miles per day, but with a horse he could cover 27 miles. St. Paul reached Jerusalem from Caesarea in two days, but apparently had some kind of conveyance. To journey from Jerusalem down to Alexandria required slightly over two weeks, and to Edessa, almost four. Seventy days is the time mentioned by St. Chrysostom as
necessary for a trip to Babylon from Antioch, whereas Beroea could be reached in two days from the northern capital. Another definite time period applies to the southern Jericho-Petra route and is supplied by Strabo, who says that this distance was covered in three to four days. Naturally such figures refer merely to ordinary merchants and travellers. Only approximate figures for speed on the sea routes can be given. In Cicero's time, ships sailing between Syria and Rome might have taken anything between fifty and one hundred days, and more, probably the latter, to reach port, but with the increased efficiency under the Empire, a summer voyage could probably have been made in less than a month. The perils of winter sailing would usually send travellers around by the overland route through Cappadocia and Phrygia and so to Greece and Rome. In any case ships made no attempt to sail directly for Rome from a Syrian port, but chose either to make first for Alexandria and then for Italy, or else to sail around Cyprus and hug the coast of Pamphylia and Lycia until Rhodes and Samos were reached.

Coastal shipping in Syria was brisk and was carried on frequently by ships belonging to Asia Minor and Alexandria as well as to the harbours of Syria itself. One of Syria's leading harbours was Tyre, thus described by Strabo, "Tyre is wholly an island, built nearly in the same manner as Aradus. It is joined to the continent by a
mound, which Alexander raised when he was besieging it. It has two harbours, one close, the other open, which is called the Egyptian harbour". The geographer also remarks on the fact that dyers, simmering their purple-producing shell-fish (murex and buccinum) detracts from the pleasure of residence in the city, where evidently business, not beauty, was the prime interest of the inhabitants. Both Tyre and Sidon were famous the world over for their dyed cloths, considered superior to any produced by neighboring Mediterranean cities, and for their glass as well. About the time of the Caesarean civil wars, the manufacture of glass had increased enormously owing to the discovery of glass-blowing. This had made possible the production of all sorts of glass household vessels at Tyre and Sidon, instead of glass luxury articles alone, as formerly.

Among other famous Syrian harbours was Caesarea, which owed its beginning to the architectural interests of Herod the Great. It was twelve years in the making, and, modelled on the colonies of Alexander, was the most up-to-date city in Palestine. To make a breakwater Herod had great stones sunk in twenty fathoms of water until a mole 200 feet wide was formed, resulting in a harbour of a size to rival that at Athens. Farther north was Berytus, which Augustus developed, as well as Aradus, Laodicea, Seleucia and a host of smaller ports. Seleucia, whose harbour
demanded continual attention from engineers, was quite satisfactory as a passenger port for Cyprus and Asia Minor but disappointing as a commercial port, since it was not suitable for ships of any size or number.

One day's sail away from Seleucia was the city of Antioch, on the east of which routes came together from Apamea, central Syria, the interior of Asia, and the Euphrates. Though it did not attain its magnificence "by the natural circumstances of commerce", still it lived by trade, and was filled with wealthy merchant shippers. Living in a paradise of luxury and ease, these more than once pitted their arrogance against Rome's authority. Hadrian, particularly, lost his temper with the irresponsible inhabitants and planned such a division of Syria that Antioch would have been deprived of some part of its wealth. He never carried out his threats against the capital however, and it did not suffer at all until the reign of Septimius Severus, seventy years later.

Although Damascus lacked the brilliance of Antioch, its position made it the centre of a vast trade drawn from Arabia Felix, Egypt, Babylon and the Far East. Ezekiel says of it, "Damascus was thy merchant in the multitude of the wares of thy making, for the multitude of all riches, in the wine of Helbon, and white wool". He is speaking of a city which lost its real usefulness only when the Suez canal
was opened! In the Roman period it was at the height of its prosperity, and this was due partly to its environment. Orchards, gardens and vineyards were stretched out about it on every side, yielding quantities of fine olives, dates, figs, pears, plums, pomegranates and apples. Masses of these were dried for export, and even the trees themselves were sometimes sent out to Italy and the West where they became acclimatized. A fine flax was also grown in the vicinity, a part of the Syrian crop which helped to provide the world with its finest linen in the second century A.D.

The robbers about Damascus were a particular source of annoyance to merchants. Around the city, there existed large natural caves, of the sort found all over the country. These provided lodging for large bands of robbers, especially on the side nearest Arabia Felix, where one cave had been found capable of holding 4000 men. The prevalence of bandits was due partly to the fact that Arabian nomads depended for their daily bread on plunder. Beside this, neighboring princes, in many cases, were only too glad to extend covert aid to robbers in order to share in the gains. One such petty prince was Zenodorus of Abila, to whom Augustus had generously given the job of policing the Trachon. Needless to say, any action he took was not for the benefit of merchants.

As Roman rule was elsewhere responsible for
strengthening Syria’s trade routes, so in this quarter a string of forts was erected to guard the roads. The Damascus-Palmyra road was fortified by a series of garrisons under the active command, primarily, of the Syrian legions stationed at Damava. However, in view of Palmyra’s distinctive character, in the early years of the Empire, as neutral middleman between the Romans and the Parthians, it is quite reasonable to suppose that a part of this route lay under its jurisdiction. The fort at Dmer, which was the second in this series, is the best known to us, and, to judge from it, they were well equipped for their purpose. Six towers faced the four sides of a rectangular building, 300 by 350 paces in size, into each side of which was let a doorway 15 paces in breadth, protected by a ring-wall 16 feet thick.

Although Palmyra was independent in its military and administrative life until the reign of Trajan, it was always dependent for its very existence on the very prosperity of Rome, its chief buyer. For three centuries this caravan city lying half way between Damascus and the Euphrates, enjoyed a success unequalled in the Near East, and great were the economic advantages resulting from its relationship with Rome. The oasis was famous for its fertility and beauty. Pliny speaks of it as urbs nobilis situ, divitiis soli et agris amoenis, but its agricultural wealth was not so much responsible for its prominence as
was its position. It was a natural halting place for caravans, and many inscriptions yet survive left by merchants who passed down the Euphrates from Palmyra to Charax Histrosoanu at the mouth of the river.

After Hadrian's visit to the oasis, merchants were benefited by the construction towards Bostra and to the Euphrates, of military roads protected by forts. These were much more liable to afford safety than the caravan gods Arsu and Azizu, though hopeful Palmyrene travellers no doubt continued to perform rites to these gods with undiminished sincerity. An interesting relief depicting the two "lights of the desert sky", was discovered by Mauritz Sobernheim and now rests in the Damascus museum. One god wears military dress in which Roman influence can be seen, though he is still equipped with barbaric trousers. It is possible that the two are idealized forms of the synodiarchs whose protection and advice were indispensible to caravan trains and in whose honor countless statues were erected at Palmyra.

A valuable relic of second century life in Palmyra is a tariff-list, which had both a Greek and a Syriac version, and which came into being as the result of endless bickering between merchants and collectors. Until the year 137 A.D., charges for goods had been fixed only in certain cases, but at this time the local senate arranged a list containing all previously omitted articles, to put an
end to arbitrary price-fixing. Such homely items as prunes
and pickled fish are found mentioned among more romantic
goods such as ointment in alabaster cases, on which the
charge was 25 denarii per camel load, spices, slaves, and
purple-dyed wool.

Closely linked with the fortunes of Palmyra, were
those of Petra, 300 miles or more to the southwest. When this
treasure house lost its position as emporium for East Indian
goods, its trade was taken over by Palmyra. But for
centuries before that time the Arabians who dwelt in it were
masters of trading caravans in their "nest among the stars".
Here was the depot for incense and myrrh from Arabia, and
for spices, ointments, jewels, skins, ivory, cotton, fabrics
and slaves from India. This commercial city drew vast
quantities of gold from Rome in exchange for its goods and
continued in splendid independence until it took Trajan's
attention and lost its prosperity in inglorious annexation.

There were three passes into Petra, all of which
could be easily blocked against invasion, but the main
entrance was on the eastern side where the road came in over
a rolling desert, squeezed through the Siq beside a
deep-troughed mountain stream. The road, which to-day shows
signs of Roman workmanship, could accommodate only two
horsemen abreast, once they were within the tortuous passage.
In a southern suburb of the city were grouped warehouses
(horrea) which must have had an immense capacity; in the
northern distance were the khans and quarries of Al-Barid, and in the west, the mountains of Idumaea, separated from Petra by the formidable, hot depths of the Arablya Valley.

It is an unquestioned fact that when Rome possessed itself of these Syrian trade routes, commerce was quickened immensely. The benefits of security and orderliness were brought to a land that had been ravished by thieves for untold generations and where native rules were frequently bought with blood. Whether the unscrupulous quick-witted traders of Syria brought any benefits to Rome is another question, best left to a Roman satirist to answer.

SUMMARY

1:- Syria's commercial importance was due to its position, not to its resources. The country was the "Gateway to the East".

2:- The road-system was complete long before the Roman occupation. Perhaps more than in any other country except Asia Minor, the highways were controlled in their direction by the nature of the terrain.
3:- The three great north-south highways were:
   a) the coast road from Gaza to Seleucia Pieria and Antioch.
   b) the road which left the coast at Caesarea and pursued the valleys of the Upper Jordan, Litas and Orontes.
   c) the Petra-Damascus-Palmyra-Euphrates road

4:- At Petra, Palmyra and Antioch began routes connecting Syria with Arabia and the Far East.

5:- An abundance of native materials made road-laying easy. Trajan and Diocletian added many improvements to the highways.

6:- Syria's leading harbours were: Caesarea, Tyre, Sidon, Berytus, Aradus, Laodicea, Seleucia. Tyre and Sidon were renowned for their dyed stuffs and their glass.

7:- Syria's leading cities were - Antioch, Damascus, Palmyra and Petra. The last two were brought under Roman control in the reign of Trajan.
NOTES TO CHAPTER V

1: Charlesworth, Trade Routes and Commerce of the Roman Empire, p. 44.

2: Bouchier, Syria as a Roman Province, pp. 1-4.

3: Charlesworth, op. cit., p. 38.

4: Ibid., p. 38.


6: A relief map of Syria reveals the natural routes very plainly.

7: Rostovtzeff, A Social and Economic History of the Roman Empire, p. 150.

8: Skeel, Travel in the First Century, p. 74; Bouchier, op. cit., p. 166.


16: Ad Stag. ii, 6, cited by Bouchier and not available to me.


18: C I L III, Nos. 14149 - 19 ff., and 117, 199, 203, 208, 6715, 6722.


25: S. Silviae Aq. Perer., 47. Not available to me.

26: Ad. Stag., II, 6. Not available to me.


28: Strabo, 16, 4, 21.

29: The amount of time may be estimated partly from Cicero's letters to Atticus, V, 2-13. Cicero left Rome at the beginning of May and reached Ephesus on July 22, with some delay en route.

30: Pliny quotes particularly fast times in N. H. XIX, 1, ff.

31: Charlesworth, op. cit., p. 42

32: Ibid., p. 42.

33: Strabo, 16, 2, 23.

35:- Pliny, N.H., XXXVI, p. 191; Strabo, 16, 2, 25. Glass vessels signed by Ennion of Sidon, greatest glassmaker of the first century A.D., have been found in Egypt, Cyprus, Italy, South Russia and elsewhere. See the Economic Survey of Ancient Rome, Vol. IV, p. 189.

36:- Charlesworth, op.cit., p. 51.


38:- Mommsen, Provinces II, p. 179.

39:- Ibid., p. 181.

40:- Ibid., pp. 127, 128.

41:- Bouchier, op.cit., pp. 54-87.

42:- Mommsen, op.cit., p. 127.

43:- Charlesworth, op.cit., p. 127.

44:- Mommsen, op.cit., p. 127.

45:- Bouchier, op.cit., p. 127.

46:- Ibid., pp. 120 - 123.

47:- XXVII, 18.


49:- Charlesworth, op.cit., p. 47.


51:- Bouchier, op.cit., p. 120; Strabo, 16, 2, 20.

52:- Strabo, 16, 2, 20.

53:- Mommsen, op.cit., p. 147.

54:- Ibid., p. 151.


56:- Bouchier, op.cit., p. 142.

57:- Rostovtzeff, A Social and Economic History of the Roman Empire, p. 147.

58:- Ibid., p. 147.


61:- Bouchier, op.cit., p. 142.


64:- Rawlinson, India and the Roman Empire, p. 129; Strabo, 16, 4, 24.

65:- Rawlinson, op.cit., p. 129.

66:- Obadiah, 1, 4. In the Old Testament Petra is known as Sela.

67:- Charlesworth, op.cit., p. 53. There are varying statements to be found respecting the prosperity of Petra after its annexation. Rostovtzeff in his Social and Economic History of Rome, p. 147, has Petra enjoying its most brilliant period after the annexation. But see also Rostovtzeff's Out of the Past of Greece and Rome, p. 73.
A discussion of Egyptian trade routes is largely a discussion of the river-highway that Homer called "Egypt's heaven descended stream" and of Alexandria the greatest mart in the habitable world. It has often been objected that this territory has preserved for us such an overwhelming amount of material as witness of its past, that an intelligent and comprehensive review of any phase of life within it is no easy accomplishment. However, those who put forward this objection have to deal with less material things than trade routes and with nothing so matter-of-fact as a river. Egypt is but a river, with a few roads and canals appended, and thick knots of people gathered along its banks and at its mouth.

Two apparently unrelated sets of circumstances made this river valley a Roman possession at much the same time that Syria was falling into Roman hands. In the first place, after Rome's wars with Carthage and Macedonia, Italian farms began to produce an ever diminishing quantity of grain, until there was too little to satisfy the demands of the capital. Rome, looking overseas for its grain supply, found its ideal provider in Egypt, where wheat bore a hundred fold
and the natives reaped three crops a year. This is not to say that Egypt became the sole source of Rome's grain, but twenty million Roman bushels of it were drawn from the Nile country annually, a third part of Rome's requirement. In the second place, Egypt had been singularly unfortunate in the character of her later Lagid rulers, who were largely without ability to handle the power in their control, even Cleopatra being concerned more with the increase of her revenues than with the practical development of Egypt's resources.

Neglect of canals and of irrigation naturally caused Rome much uneasiness and annoyance. Accordingly, Augustus in 30 B.C. assumed exclusive control of the country, finding the opportunity at Cleopatra's death.

Something of the nature of the Nile and the ships that sailed it may now be considered, with the assistance of both ancient and modern sight-seers and explorers who have left accounts of their voyages. The southern boundary of Egypt proper was at Syene (Aswan), although Roman rule did extend over the Twelve-mile-land in Aethiopia. At Syene, however, rapids in the river rendered navigation so uncertain that these southern reaches of the Nile may safely be excluded as part of the trade route. It is known that goods did reach Egypt from Aethiopia through the inland route, but such Aethiopian goods as hippopotamus tusks and precious stones could be more easily sent north
by way of the Red Sea waters to the east. In Strabo's time three Roman cohorts were stationed at Syene to check forays on the part of southern tribes, who had been accustomed to making destructive raids on the Thebaid until the Romans took drastic action and made these raids unprofitable. Egypt was not an easy country to approach for hostile purposes, and, having sufficient resources within itself, had not for many years been roused through greed or necessity to engage in aggression and so provoke enmity. Syene, then, marks the southern terminus of the trade route.

Until the Nile reaches Edfu, 60 miles north, a sandstone barrier compresses it into a quick-rushing stream; at Silsileh, the river is only 260 feet wide, and the rapids are so narrow, that men once believed that at this point was the source of the Nile. Beyond Silsileh begins the widening of the valley, the dropping of silt that has been carried over 1000 miles, and the heavy labour of the Fellahin.

Most frequently seen in these waters were the large baris, used for heavy loads, and the same high-stermed, high-prowed, square-rigged craft that sail the Nile to-day. It was quite usual also to find canoes, hollowed from single tree trunks, and, since wood was scarce, shallows made of papyrus and pactsons fashioned from reeds and rushes. Strabo sailed to Philae in a boat made of reeds and suffered no
little anxiety throughout the voyage because of the flimsy 17
basket-like quality of his conveyance! Even earthenware 18
boats are spoken of by Strabo, and Juveval. The brilliantly 19
coloured phaseli, in shape like a bean-pod, belonged to this
class, and carried the Egyptians around their farms down on
the Delta.

The Delta canals formed a perfect means of
communication between one mouth of the Nile and the next,
in fact a connection between any two points it might be
necessary to link in this territory in the interests of the
business man. To reach these canals it was necessary to sail
over 500 miles from the cataracts, but this was a journey
upon a road whose excellence even the Romans could not equal.
Upon it there was such ease of movement that land traffic
in the north-south direction was considered unusual. The
Roman passion for road-building had to be satisfied with the
construction and repair of the few cross-country routes
that were the "tributaries" of the river.

Sea-borne commerce between east and west was
by no means restricted to the Red Sea - Nile route, but
could and did take the path provided by the Persian Gulf and
the Euphrates River. For that reason, the Egyptians, for
the sake of maintaining the importance of their own trade
route, had to attempt to divert trade from the other, older
highway. It was necessary to improve in every possible
manner the means of reaching the Nile from the Red Sea. Once upon the Nile, goods were sure of at least temporary safety, but when still on the Red Sea, where strong winds blow from the north for nine months in every twelve and where the waters are studded with reefs, a cargo was never out of danger. To minimize the dangers of the Red Sea, ports were built as far south as possible on the east coast of Egypt, and roads were laid to connect them to the Nile. Two of the towns thus founded were Berenice and Myos Hormos, 200 miles to the north. Founded by Ptolemy Philadelphus they were intended to attract some of the trade that normally went via Aelana to Petra, and, in addition, to promote trade with Arabia Felix. The southern port was at some disadvantage for, although it had a fine natural harbour, there were shoals in the entrance and violent winds in the neighborhood. Moreover, it was five days farther from Coptos on the Nile, than was Myos Hormos. This latter port gradually eclipsed the other to become the important trading centre for the Arabian and East Indian trade, although, in Strabo's time, "all the Indian, Arabian and such Aethiopian merchandise as is imported by the Arabian Gulf" still passed along the road from Berenice to Coptos. Pliny describes eight watering-stations (hydreumata) built along this road to lessen the tortures of a 257 mile desert journey.

Coptos, once on the Nile's edge, but now a mile from the river, was the town of greatest importance in the Coptite
nome in the Upper Thebaid, and remained so to the end of the
Roman Empire, in spite of its near destruction at the hands
of Diocletian (296 A.D.). The charges levied here against
travellers and merchandise coming from Berenice and Myos
Hormos can still be seen on a stele found at Coptos which
gives a complete list of prices. A few of them quoted here:

- steersmen from the Red Sea -- 10 drachmae;
- boatswains -- -- -- -- -- -- 10 drachmae;
- seamen -- -- -- -- -- -- -- 5 drachmae;
- camel tickets -- -- -- -- -- 1 obol;
- a ship's mast -- -- -- -- -- 20 drachmae.

At Antinoe, many miles north of Coptos, another
road left the river, and, after crossing the desert, ran
down the east coast between the Mons Porphyrites and the
sea. This was evidently constructed to take trade away from
Coptos in favor of Antinous' city, but, as far as is known,
Hadrian's scheme to perpetuate the memory of his favorite
was not outstandingly successful. The fact that this route
entailed a longer land journey may possibly have been the
cause.

Further north, the proximity of the Nile to the
Red Sea, and the spreading arms of the Delta, made possible
the laying of canals in lieu of roads. These water highways
came naturally to form not part of the Red Sea - Nile
route, but a valuable addition to roads that crossed
Arabia Petraea and Palestine. It is true that Ptolemy
Philadelphus constructed the port of Arsinoe at the end of the River of Ptolemaeus to receive goods departing on, or coming up, the Heroopolite Gulf, but treacherous winds and currents dimmed the prosperity of the ancient Suez, and made its reason for existence only a minor one. The canal of which the terminus was Arsinoe, had had many hands in its making. When repaired and modernized by Trajan, it was already over 1400 years old if we credit the statement that it was begun in the reign of Seti I. One might compare its construction with the cutting of the canal at Corinth, which likewise suffered from the superstitions and fears of its builders. At any rate, the reasons for the delay in its completion were absurd if we exclude that which prevented the Pharaoh Necho from completing the work. It is recorded that priests told him, "Thou art creating this work for a barbarian", and, because he might well have been smoothing the path for invaders from the east, his desertion of the task can be understood. Darius I of Persia carried the canal as far as the Bitter Lakes, where he planted a stele as proof of its existence, and proceeded to fill it up again. His engineers had unfortunately neglected to begin the channel far enough south on the Nile, and they feared that Red Sea waters would flood the fields and ruin them. The Romans, on the other hand, were not accustomed to being bested by man or nature in any type of construction. In the reign of Trajan the opening of the canal at Bubastis was deserted for a
better site at Babylon opposite Memphis, and the channel, which now ended at Clysmon, was widened to 100 feet. Thus it was capable of taking ships of the largest size. At this period the canal was known as Trajan's River or the Emperor's River (*Augustus amnis*).

Roads branching westward from the Nile ventured across the desert only far enough to reach the oases; beyond there was no south-western contact with Africa. Along the north coast lay a road joining Alexandria to Cyrene in Libya, this highway being the only really important western "tributary" of the Nile.

Horses or donkeys were the sole transport animals used on Egypt's desert roads until some date early in the reign of the Ptolemies. Camels made their appearance as the most common draft animal only in the Roman period, and apparently proved of no great advantage except when it was necessary to move heavy burdens. A camel can exist on desert vegetation because its teeth are so long that thistles will not prick its mouth, while a horse must have its fodder packed along. Yet, as many writers have pointed out, the viciousness and stupidity of the camel detract greatly from its usefulness. Consequently its presence in Roman Egypt did not mean a notable change for the better in transportation. Another disadvantage from the Roman point of view was the inability of the camel to run on a paved road, and this was one of the reasons for the maintenance of the hard-beaten
sand track in Egypt. The speed of a camel cannot be fairly judged in such a climate. When it is recalled that the 257 mile journey between Coptos and Berenice required not less than 11 days and usually 12, it may be concluded that merchants sought stamina rather than speed in their animals. Unlike the inexperienced Aelius Gallus, they knew what hardships to expect from a desert, and how to use it with the least disadvantage to themselves.

Thus far nothing has been said of Alexandria, which Alexandrians were pleased to consider the raison d'être of all roads, canals, rivers, towns and peoples in Egypt. It is said that when birds pecked up the flour in which Alexander was tracing its streets and squares, a wise man prophesied wealth and glory for the infant city. His interpretation of the omen pleased not only Alexander but seemingly the gods as well, for no prophecy ever proved more amazingly true.

It is a curious fact that previous generations of Egyptians had not recognized the advantages of this particular location. On the northern side lay the Mediterranean, giving access to all the western world; on the south stretched the waters of Lake Mareotis and Egypt's natural highway, the Nile. It is said that Augustus once contemplated building a port as rival to Alexandria, but on recognizing the superior opportunities offered by this
site, gave up his idea and did all in his power to foster Alexandria's trade instead of harming it.

The position of the great Egyptian city has often been compared with that of Syrian Antioch, since both acted as receiving-houses for eastern imports, one at the end of the Red Sea - Nile route, the other at the "end" of the Euphrates River. However, Antioch, lay inland, and had only a poor Mediterranean harbour to serve it, whereas Alexandria, standing right at the Mediterranean's edge, was well equipped to receive vessels of any type or size. With the construction of a 7 furlong mole, called the Heptastadion, between the island of Pharos and the village of Rhacotis, Alexander had formed a double harbour similar to those at Syracuse, Sinope, and Cyzicus. Neither part of the double harbour, it must be admitted, afforded an easy entrance, but this did not detract from the general excellence of the port. On the eastern side, where the island and the promontory called the Lochias approached each other so closely that only a narrow lane was left between them, safety of navigation was ensured by a lighthouse that provided a conspicuous mark against a low and rocky coast. This, the famous lighthouse of Alexandria, was 400 feet high, and required 12 years for completion.

Alexandria's third harbour on Lake Mareotis, however, enjoyed the greatest reputation. Here the bulk of the raw material imported from the East, silk, cotton,
ivory, hides, drugs, spices, and a host of other products was conveyed to the city by a number of canals that linked the Nile to the lake. This wealth of imported goods gave to the third Alexandrian harbour a prominence not gained by the other two.

In spite of the great influx of goods into Alexandria, the exports exceeded imports by an appreciable margin. A letter that has commonly been assigned to Hadrian, but whose real origin is obscure, describes the city as a regular hive of workers who turned out a continuous stream of paper, glass, linen, woolen goods, ointments, and luxury goods. Thus, as a city of factories Alexandria formed an exception to the general rule that the wealthy cities of the world all won their prosperity from transit trade. Corinth, Ephesus, Rhodes, Delos, Cyzicus and Antioch had indeed risen to prominence because of the trade that was carried on through them, but neither Alexandria, Tyre, nor Pergamum had won its wealth solely or particularly because it was situated on a traffic stream.

Before dismissing Alexandria from the discussion, it is proposed to make a few statements on the ships that sailed between its harbours and Rome. Proof of the good size of these merchant ships can be found in a notice respecting the cargo of the transport vessel which brought the obelisk of the Porta del Popolo to Rome. This document
lists, in addition to 1200 passengers and 200 sailors, a cargo of 400,000 Roman bushels (96,475 imperial bushels) of wheat, glass, pepper, linen and paper. The care expended in transporting the vital wheat to Rome was such that even the mad Emperor Caligula considered building harbours of refuge by the Sicilian Straits to secure safety for grain ships during stormy weather. These ships had the finest construction, the greatest protection and the most highly skilled sailors it was possible to procure, and no ports were linked as securely as were Alexandria, Puteoli and Ostia.

If a ship left Alexandria in the early summer, it could sail along the coast of Africa directly to Cyrene, then northwest to Rome. However, this direct route was possible only until mid-July. At this time the Etesian winds blowing from the northwest necessitated either slow sailing by night or an easterly course. This course was followed by the ill-fated ship of Adramyttium that was carrying St. Paul and Josephus toward Italy, and which sailed first to Myra in Lycia, apparently far off the natural route to Rome. With the approach of winter, a ship would lie at anchor in the most convenient port, probably in Crete or Malta and there await spring, with the result that it would take perhaps five months to reach its destination. To sail between November 10 and March 10 was regarded as
foolish. There were no compasses, few lighthouses, and an abundance of uncharted reefs. The ship of Adramyttium struck such a reef in broad daylight, when the sailors attempted to bring their vessel into shore. The mid-winter sailing of Philo and his companions from Alexandria to Italy, at the time of Caligula's threatened erection of his statue in the temple at Jerusalem, took place only because horror at the outrage caused the frantic Jews to disregard the hardships of the sea.

The swiftest known voyage between Rome and Alexandria required nine days, but such speed was exceptional and doubtless made possible by the temporary blowing of the Etesians. C. Balbillus' six day voyage from the straits of Sicily to Alexandria was most unusual. As a rule, eighteen to twenty days was the normal time, and forty days in winter, if the ship did not lie in harbour at some intermediate point. As an illustration of the time taken to reach the Fayum from Rome, the murder of Pertinax on March 28, (193 A.D.) was not known in the Fayum until after May 19, since an official document drawn up on the latter date included his name. Another document of approximately one hundred years earlier reveals that Nerva's death on January 27, (98 A.D.) did not become known in the Fayum for almost three months, for this receipt is dated the thirtieth of Pharmouthi, in the second year of Nerva.
SUMMARY

1:- The greatest traffic lane in Egypt was the Nile. Alexandria, Egypt's first city, was also the foremost market of the world.

2:- The quantity of grain Egypt could produce, as well as the incompetence of its later rulers, brought the country into Roman hands.

3:- Traffic along the Nile halted on the south at Syene. Aethiopian goods could be carried overland, but were brought north more easily by the Red Sea.

4:- Nile boats were of varied and unusual types. For heavy loads the baris was used.

5:- Canals took the place of roads on the Delta.

6:- The Egyptians improved in every possible manner the connections between the Nile and the Red Sea, in order to induce traffic to leave the Persian Gulf-Euphrates route for their own Red Sea - Nile route.

7:- The River of Ptolemaeus (Trajan's River) was of minor importance due to the fact that its eastern terminus was at the head of the treacherous Red Sea waters.

8:- Camels were common as transport animals only in the Roman period and were of no great advantage to merchants.

9:- Alexandria's site was unparalleled in its advantages. Of the city's three fine harbours, that on Lake Mareotis was the most thriving.
Articles manufactured in Alexandria for export included paper, glass, woolen goods, linen and ointments. The Egyptian city was an exception to the rule that all the wealthy cities of the world had won their prosperity from transport trade.

Vessels sailing between Alexandria and Rome were extremely large for their time. Grain ships were particularly well-built, well-manned, and well-guarded.

The season for sailing the Mediterranean was from March 10 to November 10. Until mid-July, ships might sail westward to Italy from Alexandria; after that time they followed a course which brought them first to Asia Minor, and then to Italy. The normal time for a summer voyage was 18 - 20 days; for a winter voyage, 40 days were required.
NOTES TO CHAPTER VI

1: Od., 4, 561.
2: Strabo, 17, 1, 13.
   Mommsen, op.cit., p. 252.
5: Mommsen, op.cit., p. 252.
6: Ibid., p. 259.
7: Charlesworth, Trade Routes and Commerce of the Roman Empire, p. 17.
9: Cary and Warmington, The Ancient Explorers, p. 174
10: Ibid., p. 165.
12: Strabo, 17, 1, 12.
13: Ibid., 17, 1, 53.
16: Skeel, Travel in the First Century, p. 106.
17: Strabo, 17, 1, 50.
19: Sat., 15,126.
21: Charlesworth, op.cit., p. 18.
23: The Ancient Explorers, p. 68.
25: The Ancient Explorers, p. 68.
26: Strabo, 16, 4, 5.
27: Charlesworth, op.cit., p. 21.
28: Strabo, 17, 1, 45.
30: Mommsen, op.cit., p. 251.
32: Milne, History of Egypt under Roman Rule, p. 66.
33: Charlesworth, op.cit., p. 20.
35: Charlesworth, op.cit., p. 21.
36: Ibid., p. 20.
38: Ludwig, op.cit., p. 444.
39: Ibid., p. 279.
41: Tarn, Hellenistic Civilization, p. 159.
43:-- Charlesworth, op.cit., p. 21.
46:-- Strabo, 17, 1, 7.
47:-- Dio, LI, 18, 1.
49:-- Strabo, 17, 1, 6.
50:-- Tarn, op.cit., p. 279.
51:-- Charlesworth, op.cit., p. 27.
52:-- Strabo, 17, 1, 7.
53:-- Henderson, The Life and Principate of the Emperor Hadrian, p. 228.
54:-- Tarn, op.cit., p. 220.
55:-- Mommsen, op.cit., p. 257.
56:-- Charlesworth, op.cit., p. 31.
58:-- Charlesworth, op.cit., p. 23.
63:-- Mommsen, op.cit., p. 171 ff.
64:-- Pliny, N.H., XIX, 3.
66:-- Charlesworth, op.cit., p. 23.
67:-- Milne, op.cit., p. 67.
68:-- Grenfell, Hunt and Hogarth, Fayum Towns and Their Papyri, p. 173.
CHAPTER VII

THE SEA ROUTES TO INDIA AND CEYLON

India, and the Far East generally, drained enormous quantities of gold out of the Empire in return for their goods. Therefore, it will not be amiss, as Pliny suggests, to investigate the trade routes in this quarter of the world, with particular reference, first of all, to the sea routes.

In the early years of the Empire, traffic between India and the West was still directed along the shores of Arabia and Persia. To sail a ship across the open seas between the Indian peninsula and Arabia was impossible, for men had not yet come to know the winds on those waters, winds that might well take their ships into the vast Indian Ocean rather than to the harbours of India and Arabia. Under these conditions, the petty potentates living on the coasts of Arabia and Persia, could tax to the limit ships passing along their territory and there was nothing a navigator might do to escape their demands.

It was by levying tolls on passing ships, that the Arab emporium of Adana won a great part of its wealth. So wealthy was the ancient Aden, in fact, that the term Arabia Felix as often referred to it, as to the whole southwest Arabian country. Goods from it were sent north regularly over the incense route by Iathrib (Medina) and Dedan (Al-Ula)
to Petra, throughout the third and second centuries B.C., and to the end of the rule of the Ptolemies, its right to direct merchandise was unquestioned. From the standpoint of the Roman trader, such a centre could not be allowed to remain, and indeed, it was captured and sacked early in the Empire. It cannot be said with absolute certainty under what Caesar its overthrow was accomplished, or whether the sacking of the city was due to the command of a Caesar, as the author of the Periplus states. Some suppose the word "Caesar" to be a misreading for Eleazar (Ili Azzu) or Charibael, both neighboring kings. Others defend the M. S. reading. Accordingly, no definite statement can be made concerning the time or the originator of its fall.

An early attempt to reach Adana by the Romans had taken place in the reign of Augustus, but it had failed in a particularly humiliating fashion for two reasons. The leader of the expedition, Aelius Gallus, went into the country with no idea how to face its hardships, in fact, apparently with no idea that such hardships existed. That any of his 11,000 men survived was nothing less than a miracle. In the second place, the chief minister of Obodas III of Petra, was chosen to guide the expedition. It has been insisted that no treachery was intended on the part of the minister Syaellus, but, on the other hand, it is not hard to see deliberate bungling in the fact that the Romans wasted months wandering
in the desert with an experienced and wily Nabataean at their head. Even less successful was the effort of the young prince Gaius to emulate Nearchus and explore southward from the Euphrates to Arabia Felix. Death put an end to his venture before he ever reached southern Arabia. However, these attempts revealed the interest Augustus felt in winning control of the eastern trade routes, if not for his own time, at least for a period in the not distant future.

Succeeding emperors were unfortunately less concerned with protecting the Roman route to India. If the sack of Adana is assigned to the reign of Claudius, and the occupation of Syagrus to that of Nero, there is nothing much to be said of any further steps taken on behalf of Roman interests in eastern waters. No move was made to subdue Arabia and to put an end to the continued rivalry of Muza, or even to check the increasing power of the Axomites (Aethiopians). Any progress made in the development or protection of the trade routes in this quarter was due largely to the enterprise of Greek sailors, and, as one authority points out, this development was bound to follow in the train of the Pax Romana, even without the personal concern of the emperors.

The greatest impetus to eastern trade was given by the discovery that the monsoons would take a ship directly across to India from the Arabian coast. Some time in the
reign of Tiberius or Claudius, a captain named Hippalus, like Columbus, grew weary of sailing in the usual waters and put to sea with a prayer in his mouth and the wind behind him. With 1335 miles between him and Cape Syagrus, his faith in the steady southwest winds was justified and he brought his ship to harbour at the mouth of the Indus. This was a splendid achievement but traders were not yet completely satisfied. Ships had still to sail down the coast of India to reach Muziris, and the other leading ports in the south of India, where the coveted eastern luxuries were to be found. Traders who followed the path taken by Hippalus, could, it is true, conclude their voyage at Barygaza, an important northern port, but there was a certain degree of danger involved in doing so. Not only was the Nerbudda River, on which Barygaza was located, difficult to find and enter, but the Rann and the Gulf of Cutch were formidable spots near which to navigate. A safer and more advantageous crossing was accomplished in Claudius' reign by first coasting to Cape Syagrus and then crossing the ocean to reach harbours in the vicinity of the modern Jaigarh or Rajapur. From here the trader could turn north or south as he wished, complete his trading, and return to the same point for his homeward journey. Later in the reign of Claudius, an unidentified freedman sailing around Arabia in a revenue ship, was surprised by a monsoon and made a
record sail to Taprobane (Ceylon), accomplishing in only fifteen days an unexpected and profitable voyage. This voyage gave new courage to the traders of later years, as is evidenced by the new method of approach adopted by a merchant who pioneered the direct voyage to Muziris. His plan was to have his helmsman pull constantly on the rudder and his sailors make a shift of the yard. As a result, and in accordance with his design, the ship followed a course like the arc of a circle, beginning at the Gulf of Aden and ending at Muziris. This course continued to be used by succeeding traders, but, as the harbour of Muziris was far from being satisfactory owing to the swarms of pirates in the vicinity and to the poor anchorage provided, more convenient points of disembarkation were chosen, such as Nelcynda, inside the Cochin Lagoon, or Barake on its outer edge.

Although traders could now follow a direct route to India, this did not destroy the coasting trade along the shores of Arabia and in the Persian Gulf. The author of the Periplus Maris Erythraei describes a voyage to India by such a route. Because he does so from his own experience, unlike many other ancient geographers, his account is of much importance. This work, which cannot be dated exactly, belongs to the reign of Domitian close to the year 80 A.D., and may be considered a companion piece to Pliny's description of the eastern trade routes.
Muza was the first port communicating directly with India, which the author of the Periplus visited on his way south in the Red Sea. The Arabian natives kept up their own fleet of ships and maintained a busy mart. Within the city craftsmen turned out knives, daggers, hatchets, and tools of various sorts for shipment to the southeastern coast of Africa. From the land came wine and wheat, and from the neighboring Sabaeen territory, the famed incense and spices. The name Muza, slightly transformed, is still used by a village bordering on the modern Mocha. A few miles south was Okelis, which Pliny said was the best place to embark for India, then Adana, which by Domitian's time was occupied by Romans and served only as a watering station and a refuge for sailors.

Out on the south coast of Arabia the author of the Periplus next touched at Kane, from which ships frequently made the voyage direct to India, taking on here their last supply of food and water. The coasting vessels went on along the shore of the frankincense country. Here an unhealthy atmosphere made living impossible for Europeans, convicts being brought to collect the incense that gave the country its fabulous wealth. After Kane, the ship came to Cape Syagrus (Ras Fartak) and Moscha, a port for the incense trade. Touching next at a few towns of minor importance, it then turned into the Persian Gulf to enter harbour at Gerrha and
Ommana, both of which were thriving towns, peopled by men of great wealth and enterprise.

At the north end of the Persian Gulf on the mouth of the Euphrates was Apologus, which by Domitian's time had assumed control of the trading carried on earlier by Teredon and by Charax Hyspaosinu. The latter was an important station in Strabo's time, but, at the close of the first century, deposits of mud laid down by the river, had separated it by twelve miles from the water. When the author of the Periplus visited Apologus he noted the large amounts of timber - ebony, teak, blackwood and sandalwood - shipped in from India. These woods, incidentally, had found a market in this country for hundreds of years. Imported timber was needed because the cypress was the only tree that could be made to grow well in the bogs about the mouth of the river. In return for the timber from Barygaza, Persian pearls, of a quality inferior to the Indian product, purple dyes from the Mediterranean, wine, dates, and slaves were sent back regularly in the large Indian vessels.

With the Persian Gulf left behind, the author next came into a port on the middle mouth of the Indus, whose name had been corrupted by the Greeks to Barbarikon. As Greek sailors always changed the names of Indian ports to suit their own tongue, they have prevented modern readers from identifying the town definitely with Naustathmos or
Alexander's Haven. It seems likely, however, that Naustathmos and Barbarikon are one and the same. Here ships dropped the goods meant for Minnagara, the capital of Sind, which lay a few miles inland, then proceeded to Barygaza.

At Barygaza a regular pilot service was made necessary by the peculiar nature of the harbour entrance. The tide in this part was apt to rush out and leave ships stranded helplessly on the many shoals, then suddenly sweep back and capsize them. When the coasting trade was at its height, the treacherous tide detracted little from the use of the port, but in the last half of the first century A.D., Barygaza was deserted more and more for the ports in the Tamil country, until its fame was gone. In its brilliant period great quantities of ivory, silk, cotton, rice, liquified butter (ghee), and pepper had been sent out to the west in return for tin and lead, unknown in India, as well as glass, Asiatic and Italian wine, slaves, and gold and silver coin. Roman money was always welcome in India where native specie was scarce and of a poor quality.

South of Barygaza was Muziris another great Indian city. As well as pearls of exquisite quality, it had for shipment beryls, sapphires, and diamonds, silk cloth, ivory, spikenard, and malabathrum. Malabathrum consisted of the leaves of a plant grown in the Himalaya Mountains and it was used in the compounding of an unguent mentioned by Horace.
Great sacks of pepper were also exported, but the main ports for the shipping of pepper were Barake and Nelcynda some miles to the south. Peoples of the West valued pepper so highly that it was selling for 15 denarii a pound in Pliny's time, and later formed a treasured part of Alaric's plunder when he and his West Goths attacked Rome. The centre of the pepper district was Kottonara (Kolattanadu) known in modern times as Tellicherry, from which the natives brought down the pepper in dugouts.

To bring a cargo to Rome from the Tamil coast required about sixteen weeks, if a ship sailed in December or January with the northeast monsoon to bring it up to the Gulf of Aden. Pliny would have this the Volturnus, or S.S.E. wind, but this is obviously an error on his part. Going out to India, sailors shipped from ports either on the Nabataean side or the Egyptian side of the Red Sea about mid-summer, before or just after the rising of the Dog Star. It then took them a month to get to Okelis, and, if the Hippalus wind was blowing, forty more days to reach Muziris or other points on the south coast. Forty days, it should be noted, is a conservative estimate, as it has been recorded by Pliny that it was possible to reach Ceylon from the coast of Arabia in only fifteen days. Lucian (150 A.D.) states that a man might travel from the Pillars of Hercules to India and back, three times within two Olympiads, sightseeing at all the interesting places on the way. He also thinks that the time
might come when a man would fly from Greece to India in a day.

While trade with the west coast of India was advancing rapidly in the first century, little was actually known of Ceylon. For a long time the Tamils held a monopoly of the trade with that island, thus preventing western sailors from carrying back their usual and often garbled reports to the geographers. Even Ptolemy had only a rough idea of the size of the land of the Lion People, because he had no other account upon which to base his ideas except that of Onesicritus, Alexander's pilot, who was addicted to romancing.

The most interesting tale concerning Ceylon is told by Pliny and later repeated by Cosmas Indicopleustes. It seems that when Annius Plocamus' freedman was blown to Ceylon by an unexpected wind, he arrived by a coincidence at the same time as a garrulous Persian. The latter was attempting to convince the Sinhalese monarch of the vast superiority of Persia, when the Roman silenced him effectively by producing a Roman aureus. The fine golden coin of the Roman, laid beside the rough silver one of the Persian, revealed better than any words Rome's position in the world of trade. Pliny's version lacks the Persian who appears in Cosmas' tale, but the story is a good one, no matter what the form. At the time of Cosmas' visit to Ceylon in the sixth century A.D., it was a great centre of trade, but in the Roman period, western peoples seem to have had little intercourse with its inhabitants.
Along the east coast of India, north of Cape Comorin (Kumari) was the Chola Kingdom in the territory now called Coromandel. Its main harbours were Csmara, Poduca (Pondicherry), and Scpatma. Here ships from the Tamil country, from the country about the Ganges, and even from the Malay Peninsula were frequently to be found. A number of Greeks, called Yavana by the natives, lived along this coast, some of them as artisans, others as merchants in the bazaars where a large proportion of the Roman exports to India was for sale.

Few western ships, however, penetrated beyond the Chola country. Most of the exploration farther east was carried on in the second century A.D., as can readily be seen from comparing the work of Ptolemy with the Periplus. This exploration was carried on by traders who were more concerned with finding new markets than with compiling scientific information. A curious feature of Ptolemy's conception of India, resulting from this fact, is that he imagines that the coasts, forming two sides of the Indian triangle, continue rather as one coast, running from west to east. Nevertheless, he has the distinction of being the first western writer (150 A.D.) to mention the Ganges Delta, of which the author of the Periplus knew nothing. Even more interesting is the fact that he knew of the existence of Java (Labadius) although his description of the island is really a description of Sumatra. Ptolemy concludes his remarks on India when he
reaches Kattigara. Its location is not known exactly, but it was probably on the Gulf of Tongking in Cochin China, perhaps at Hanoi, where at least one Roman coin has been found. Chinese records tell of Roman merchants in Siam, Annam and Tongking, but the sea trade with China was only just under way when it was ended, the result of civil wars and disasters in the Roman world.

Trade with India likewise suffered in the third century as can be seen from the lack of Roman coins of that period in this country. They were plentiful enough in the first two centuries to judge from hoards found in the southern pearl and spice regions, and in the northern cotton country, where more trade was directed after Nero's time. Luxury trade reached its height when Nero and his emulators were living in a grandiose fashion and were demanding the products of southern India and Arabia at a terrifying rate. Therefore, many Roman coins of this period have been found buried in the south. When Vespasian decided to curtail extravagance, trade moved to northern India. There it continued steadily for a century, then gradually declined until new life was injected into it in the Byzantine period.
SUMMARY

1:- Ships plying between India and the West were restricted, in the early years of the Empire, to following the shores of Arabia and Persia. Therefore middlemen waxed prosperous at the expense of both eastern and western traders passing along their shores.

2:- Steps taken in the acquisition of a Roman trade route to the east:
   a) under Augustus - attempts made to attack Aden, (Aelius Gallus and prince Gaius).
   b) under Claudius - sack of Aden.
   c) under Nero - occupation of Cape Syagrus.

3:- Development of route directly across the seas between the Gulf of Aden and India.
   a) Hippalus' voyage from Aden - Indus.
   b) under Claudius, voyage from Cape Syagrus-Jaigarh.
   c) later, voyage from Aden - Muziris. (Melcynda or Barsake better points at which to disembark).

4:- Continuance of coastal traffic between India and the West. Best description of a coastal voyage to India found in the Periplus Mari Erythraei.
5:-- Indian products: timber, cotton, silk, ivory, precious stones, rice, ghee, pepper, spices.

6:-- Time required for voyage between

Tamil coast and Rome - - - - - - 16 weeks.

(Rome to Alexandria - - - - - 3 weeks
(Alexandria to Red Sea Ports - 3 weeks
(Egyptian or Nabataean Ports -
    to Okelis - - - - - 4 weeks
(Gulf of Aden to Muziris - - 6 weeks

7:-- Little was known of Ceylon in the Roman period, since Tamils held a monopoly of trade with the island for many years.

8:-- Exploration of the eastern coast of India was carried on mainly in the second century A.D. Some western ships reached China, but sea trade with that country did not develop.

9:-- Decline of trade with India in the third century is mirrored by lack of third century Roman coins in the country. First and Second century Roman coins reveal that trade was directed first to southern India, the pearl and spice region, then to northern India, the cotton region.
NOTES TO CHAPTER VII

1:- 100,000,000 sesterces per year. This sum is calculated by Mommsen, Prov. II, p. 300, to represent £1,000,000. See also Mattingly, Roman Coins, p. 182.

2:- Pliny, N.H. XII, 18. (41).


4:- Mommsen, op. cit., pp. 293, 294.

5:- Ibid., p. 289.

6:- Tarn, Hellenistic Civilisation, p. 213.

7:- Periplus Maris Erythraei, 26. Not available to me.

8:- Rawlinson, Intercourse between India and the Western World, p. 112.

9:- Mommsen, op. cit., p. 294 n.1.

10:- Dio LIII, 29.


12:- Strabo, 15, 4, 23.

13:- Pliny, N.H. XII, 56.


15:- Ibid., p. 513.

16:- Ibid., p. 513.


18:- The Ancient Explorers, p. 75.

19:- Ibid., p. 76.


21:- The Ancient Explorers, p. 76.

22:- Pliny, N.H., VI, 25.

23:- Charlesworth, Trade Routes and Commerce of the Roman Empire, p. 67.

24:- The author of the Periplus was a Greek trader living in Egypt in the Flavian period. See Skeel, Travel in the First Century, p. 33.

25:- Rostovtzeff, op. cit., p. 93


27:- Rawlinson, op. cit., p. 94.

28:- Pliny, N.H., VI, 104.

29:- Rostovtzeff, op. cit., p. 93.

30:- Perip., 36.

31:- Strabo, 16, 3, 3.

32:- Perip., 35.

33:- Pliny, N.H. VI, 139.

34:- Ibid., VI, 139.

35:- Rawlinson, op. cit., p. 3.

36:- See chapter V, p. 62, where goods passing through Palmyra are mentioned.
37:- Charlesworth, op. cit., p. 68.
38:- Rawlinson, op. cit., p. 114.
39:- Ibid., p. 35.
40:- Perip., 45.
41:- Rawlinson, op. cit., p. 120.
42:- Charlesworth, op. cit., p. 68.
43:- Rawlinson, op. cit., pp. 166, 167.
44:- Perip., 44.
45:- cf. Pliny, N.E. IX, 106; 113-114; cf. 117.
46:- For Indian diamonds and other precious stones see
Pliny, N.H., XXXVII, 55-56; cf. Mart., 5. 11. 1; Juv.,
6, 156. For ivory, cf. Virgil, Georg., I, 57.
47:- This spikenard, used in making the famous ointment of
spikenard, is mentioned in St. Mark, 14, 3.
48:- Odes II, 7, 89. ... cum quo morantem saepe diem merce
fregi coronatus nitentis malobathro Syrio capillos?
Syrio - i.e. - brought from the ports of Syria.
49:- Rawlinson, op. cit., p. 120.
50:- Pliny, N.E., XII, 28.
51:- Gibbon, III, p. 272.
52:- Rawlinson, op. cit., p. 112.
53:- Ibid., p. 112.
54:- Ibid., p. 112 n. 2.
56:- Ibid., VI, 26.
57:- Ibid., VI, 24.
58:- Lucian, Hermod, 4.
59:- The Ancient Explorers, p. 79.
60:- Ptolemy lived about 150 A.D. His Guide to Geography is
mathematical rather than descriptive.
61:- Strabo, 15, 1, 28. This writer may as well be called
the master fabulist as the master pilot of Alexander.
62:- Pliny, N.H., VI, 22.
63:- Christian Topography, Bk XI, not available to me.
64:- Rawlinson, op. cit., p. 149.
65:- The Ancient Explorers, p. 79.
66:- Camara and other market-towns in Perip., 60.
67:- The Ancient Explorers, p. 79.
68:- cf. Ezekiel XXVII, 19 and Isaiah LXI, 19 where the
Greeks are called Yavana.
69:- The Ancient Explorers, p. 79.
70:- Rostovtzeff, op. cit., p. 531.
71:- See Kelpert, Atlas Antiquus, Tab. I for Ptolemy's map
of the ancient world.
72:- Rawlinson, op. cit., pp. 132-133. Virgil's reference
to the seven calm streams of the river may or may not
73:- Rawlinson, op. cit., p. 134-135.
74:- For Roman coins see The Ancient Explorers, p. 83.
75: - Charlesworth, op. cit., p. 72
76: - J.R.A.S. (1903) p. 591. Not available to me. See also
      Rostovtzeff, op. cit., p. 421.
77: - Charlesworth, op. cit., p. 61.
      232, 283.
80: - Rostovtzeff, op. cit., p. 421.
CHAPTER VIII

CONCLUSION

An account of the great lines of communication between Italy and the lands lying to the east has now been completed. Since the account has been restricted to essentials, it should have left with the reader certain definite impressions respecting each of the countries that has been studied. He should recall:

1: - that Greece was a poor country, but that it played its part as a connecting link between Italy and the East;

2: - that Asia Minor had a fine system of roads, and that it was a flourishing and productive land;

3: - that two silk roads developed at different periods joined Chine to Rome, and that the Romans were never introduced to the culture of the Chinese;

4: - that all the most important roads of the east ended in or passed through Syria;

5: - that in Egypt the Nile was the great highway and man-made roads were mere appendages of it;

6: - that the routes which brought the Indian luxuries to the West were developed gradually,
as western peoples learned about the winds on the southern waters.

The roads and routes constructed and developed by the Roman thus bound all manner of peoples together, made possible the intermingling of the most varied cultures, and raised the standard of living for every race through whose country they passed. Though perhaps too much credit is given to the Roman as a road-maker, it is yet true that without his genius to perfect and unify the road-system as a whole, communication between nations would have been much slower, much more laborious. The Roman, with his zest for road-building, brought into the world such far reaching changes for the better, that modern man is yet benefiting from them.
### ABBREVIATIONS

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<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>C.I.L.</td>
<td>Corpus Inscriptionum Latinarum</td>
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<tr>
<td>I.L.S.</td>
<td>Inscriptiones Latinae Selectae</td>
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<tr>
<td>J.R.A.S.</td>
<td>Journal of Roman Studies</td>
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<tr>
<td>N. H.</td>
<td>Naturalis Historia</td>
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<td>Aen.</td>
<td>Aeneid</td>
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<td>Georg.</td>
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<td>Hist. Anim.</td>
<td>Historia Animalium</td>
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<td>Mart.</td>
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<td>Tac.</td>
<td>Tacitus</td>
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ANCIENT SOURCES

1:-- INSCRIPTIONS

Corpus Inscriptionum Latinarum

I, 557.

III, 312, 318, 13626,
14149 - 19, 117, 199, 203, 208, 6715, 6722.
14184, 44, 48, 66, 60, 61.
14380, 14402.

Inscriptiones Latinae Selectae, Dessau,
628, 5846.

2:-- AUTHORS

Ammianus Marcellinus, Res Gestae.
Aristophanes, Ornithes.
Aristotle, Historia Animalium.
Arrian; Anabasis, Periplus.
Bible, The Holy.
Cicero, Letters, Verrine Orations.
Dio, Histories.
Herodotus, Histories.
Homer, Odyssey.
Josephus, Antiquitates Judicae.
Juvenal, Satires.
Lucian, Hermotimus (tr. H.W.Fowler and F.G.Fowler).
Martial, Epigrams.
Pausanias, *Description of Greece.*
Philiscus, fragments of the Comic works of.
Pliny the Elder, *Naturalis Historia.*
Pliny the Younger, *Letters.*
Plutarch, *The Lives of the Noble Grecians and Romans.*
Polybius, *Histories.*
Seneca, *Epistles.*
Strabo, Geography of, (tr. Hamilton and Falconer).
Tacitus, *Annals.*
Tibullus, *Elegies.*
Virgil, *Aeneid, Georgics.*
Vitruvius, *de Architectura.*
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