A well-known proverb says, "All roads lead to Rome." The Roman Empire was crisscrossed by 48,500 miles of roads—a distance equal to twice the circumference of the earth! As you will see in the following excerpt, this vast network of highways was one of the keys to Rome's success.

from The Roads to the Spiceries

from Roman Roads

by VICTOR W. VON HAGEN

rajan, the greatest builder of roads Rome ever had, improved the existing roads all over Hither Asia.1 . He called over two legions:2 the Legio III Cyrenaica guarded the north, the Legio VIII Hispania, drawn from his own Spain, guarded the south.

They kept the Pax Romana, or Roman Peace. They taught the people how to build roads and how to put up bridges. They erected guard stations and signal towers. Over the land came something the people had not known for centuries—security. With security came growth and freedom, trade and movement. Desert posts, forts, and checkpoints were put up to control the unruly tribesmen; swift Roman

HISTORY

GEOGRAPHY



▲ Emperor Trajan.

You Need to Know...

Early Romans were content to eat a lot of porridge and plain roast pork. Later, as Rome's wealth increased, its rich citizens wanted the more exotic goods that traders could bring from afar. Many of these luxury items, such as spices, were found in the Middle East, but goods were often lost along trade routes because of robbers or bad roads. To help improve trade, the first Roman road in Turkey was built in 129 B.C. Emperor Trajan (trā'jən), who ruled from A.D. 98 to 117, expanded the Roman highway system to the farthest corners of the empire. Roman roads were an engineering marvel made of hard-packed gravel, concrete, or flagstones. Traces of them can still be seen today.

1. Hither Asia: Roman name for the Middle East, including the area now known as

2. legions: divisions of the Roman army, each including 3,000 to 6,000 foot soldiers and 100 to 200 cavalry.

unruly (un-roo'lē): difficult to manage; undisciplined.

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justice was meted³ out to those who broke the Pax Romana. In that atmosphere, the arts of peace, of which road building was one, flourished.

Romans on the March

Rome ruled the ancient world with its army, which was organized around the *legion*. A legion contained about 6,000 cavalry and infantry troops. Legions' numbers and nicknames reflected who created them and where the groups served. Legions' nicknames also could boast of soldiers' courage. Fighters could call attention to their skill and endurance with names such as VI *Ferrata fidelis constans*, which we today might call "iron-sides." Legions used two infantry weapons that packed quite a punch: a seven-foot javelin, or spear, for throwing and thrusting and a twenty-inch sword with a heavy blade for cutting and thrusting. Only the fiercest foe stood a chance against the mighty legions of ancient Rome.

The great Via Traiana, ordered, built, and most of it personally financed by Trajan, ran the whole length of the desert land from Damascus to Agaba, the port of the Red Sea route. It extended for four hundred. miles, and to the north ran parallel to the river Jordan and the Dead Sea. Trajan appointed a well-known builder of roads, Claudius Severus, to be his legate and overseer4 of the southern sections of the road. At the Wadi Musa, the road fol-

lowed a deep canyon to the famous city of Petra. Petra belonged once to the Nabataean⁵ kingdom. It is these people who began the famous rock city; its buildings, of the most beautiful classical style, were <u>hewn</u> out of the varicolored limestone.

The Romans took over Petra in A.D. 106 to protect the caravans that went through these canyons. Whoever controlled Petra controlled the caravan route. Petra was redesigned on Roman lines; streets, fountains, theaters, all went up in the usual fashion. The ancient buildings of the Nabataeans they left alone.

Seventy Roman miles from Petra, the Via Traiana entered the port of Aqaba. There are no archaeological

hewn (hyoon): shaped with a tool such as an ax.

3. meted (mēt'id): given out or distributed.

 legate and overseer: A legate is an official ambassador, in this case a Roman province's governor or deputy. An overseer is a supervisor.

^{5.} Wadi Musa... Petra... Nabataean: Petra, a city named for the Greek word for "rock," was a thriving trade center in the kingdom of Nabatea (nab'ə•tē'ə), an area located between Syria and Arabia. Wadi Musa, the Valley of Moses, runs through the ancient city.

remains here, only memory and bits of history. Aqaba provided the shortest route to the Middle East; caravans of ships sailed from Bombay into the Arabian Sea, avoiding the pirates if they could at the narrows of the Gulf of Aden. Then, with the trade winds, they sailed north on the Red Sea to the port of Aqaba. It was the roadhead for the desert caravans.

The Romans had a passion for pepper. It gave food a bounce. It was light and easily transportable. Loaded onto camels, it was brought four hundred miles over Trajan's Way, put on ships at the ports of Lebanon and then sent to Ostia, the port of Rome. The filling of the pepper barns beside the Tiber⁶ was one of the primary functions of

6. Tiber: river in central Italy that flows through Rome to the Mediterranean Sea. NORTH SEA ATLANTIC OCEAN GERMANIA Asia Minor ARTHIAN **EMPIRE** Ctesiphon MEDITERRANE Trade goods: Spices Olive 0 Glassware reoSystems Global Corp Metals Arabian Leather Peninsula Grains 800 Miles Trade Meat 400 800 Kilometers

▲ Map of the Roman Empire at its height, A.D. 117. Trade thrived throughout the empire as a result of an improved system of roads. • What trade goods were produced along trade routes in Syria and the Red Sea area?

trade. So important was pepper that when the Goths⁷ appeared before the gates of Rome in A.D. 408 they demanded three thousand pounds of pepper before they would treat⁸ with the Romans.

Cinnamon, "the gift of kings," arrived at Aqaba curled up in long, pencil-shaped sticks. Cloves, called "little nails" because the head of a clove looked like a Roman nail, made its way from Ceylon. Nutmeg and its covering, mace, came from Malaya. Gingerroot, which grew in the wild parts of India, was easily packed and could withstand the many days of the long haul. These spices were best for trade; cheap at the source, they were dear at the market.

SIDELIGHT

"In the 1960s, Peter Throckmorton excavated the wreck of a ship near the Italian coast that dated from the time of the Roman Empire. Throckmorton's research yielded much valuable and detailed information about shipbuilding in Roman times. It showed how the Roman shipbuilders used various types of wood, such as pine, cypress, and cedar. The research also yielded information about the shapes of the nails used in ship construction. Finally, Throckmorton showed how the bottoms of the ships were covered with large sheets of lead. This was done to protect the hull of the ship from damage by marine animals.

But perhaps the strangest and most interesting aspect of this wreck was the nature of its cargo. When the ship went down, it was carrying a load of coffins, obviously meant for the rich and important citizens of the Empire. The coffins had been carved out of marble, and they had been brought by sea all the way from Asia Minor in the east. We may sometimes think of these ancient ships as puny little wooden craft, and it is true that in comparison with our giant tankers, aircraft carriers, and ocean liners, the old wooden ships were small indeed. Still, they were not exactly rowboats. The marble coffins aboard this single wooden ship weighed more than 150 tons!"

—"A Cargo of Coffins" by Elisha Linder and Avner Raban from *Introducing Underwater Archaeology*

^{7.} Goths (gäths): members of a Germanic people who invaded the Roman Empire beginning in the third century A.D.

^{8.} treat: negotiate with; reach a settlement with.

Spices were light and easily transportable. Pliny, the great Roman naturalist, who was so curious about nature that he walked too near Vesuvius during its eruption and died of asphyxia, ⁹ said about the spice trade: "They sold at the market of Rome for a hundred times their original price."

"Bring us slaves and bring us ivory," was the demand of the rich in Rome. Both arrived at Aqaba. The whole ancient world, not alone Rome, dealt in slavery; conquered peoples, people who could not pay their debts, people who sold themselves into slavery, and others uprooted from their homes, all were brought into the slave markets.

And ivory—Romans had a passion for it. Judges sat on seats plaited¹⁰ with ivory. The seats and the benches of the Roman Senate were of ivory. One Roman emperor had his horses eat from ivory mangers. Ivory was delicate in color with the feel of a water lily. It was never cold nor dead. It grew more beautiful with age. It was strong and elastic and could be easily and deeply cut. Roman jewelers loved to inlay¹¹ ivory with gold or turquoise.

Pearls came from the coasts of India, carried by traders and guarded by soldiers. Pearls relate themselves to flesh, and Roman women were proud when their skin gave the pearls sheen and sweetness. The best pearls came from Ceylon.

"I swear before the gods," said a returning trader, "that the bottom of the sea seems to be covered with them. There is no place in the world where more pearls are found."

And with pearls from India came diamonds. These were found in the gravel of river beds. That "invincible stone," they said of it because it could not be cut. The Romans called it by its Greek name *adamas*, meaning invulnerable. Kings who went to war placed them on their breastplates near to their hearts so that they would not be killed. The diamond was thought to be frozen water.



A Roman coin.

sheen (shēn): glistening appearance; shininess.

invulnerable (in-vul'nər-ə-bel): unable to be injured; not open to attack

^{9.} Vesuvius . . . asphyxia: Vesuvius (ve•soo 'vē•as), a volcano located on the Bay of Naples in southern Italy, erupted in A.D. 79 and destroyed the city of Pompeii. Asphyxia (as•fik'sē•a) is loss of consciousness caused by lack of oxygen, which occurs if someone inhales toxic gases.

^{10.} plaited (plāt'id): woven or braided.

^{11.} inlay: to set into a surface to create a design.

Lucius Trebonius Was Here

On March 25, 2 B.c., a Roman tourist carved L. Trebonius Oricula hic fui on a wall of the Egyptian Temple of Isis: "I, Lucius Trebonius Oricula, was here." This Roman tourist was taking advantage of the peaceful years of the Roman Empire to see the sights of Egypt. By using the well-built Roman roads and hopping on freight ships crossing the Mediterranean Sea, Roman travelers visited historic sites just as we do today. The Pyramids of Gîza, then as now, were a popular destination. Tourists also went to see where the Greeks fought the Trojan War and where Alexander the Great once lived. They could even buy souvenirs. In the city of Antioch, merchants sold many copies of a famous statue of Tyche, the city's goddess of fortune.

cultivated (kul'tə-vāt'id): grew or

Emeralds came from India as well as from Egypt. And there were all the rainbow jewels destined for Rome: jade and jasper, agate and onyx, beryl and sapphire, "the most like heaven in fair weather and clear, most apt to fit the fingers of kings."

All these products of trade were luxury items. They were light and easily transportable; cheap at the source, and worth a fortune in Rome.

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There were other trade items: linen and cotton, bananas and sugar cane. The banana, which is really a grass, was first developed in India. Only the traders knew of it and ate it. Bananas were bulky to ship, the passage to Rome too long to have them arrive eatable. Sugar cane was known to the Romans, but honey was the sweetener. Linens and cottons were, of course, known; mummies had been wrapped in linen, [which] could be woven almost as thin as silk.

The Indians cultivated cotton trees, and this cotton was known as "tree wool." In the Nile they grew a bush cotton, the long-staple cotton beloved by the weavers of cloth. They made gauzy¹² tissues of cotton of a thinness like a veil of mist, "there is a cloth a yard wide and twenty yards long that can be passed through a finger ring."

At the port of Aqaba, merchants had offices where the imports were received and duties¹³ paid. The merchants waited to load the camel caravans until there was a large enough shipment—caravans numbered as many as five hundred camels. If the cargo was very precious, a company

^{12.} gauzy (gô'zē): light; thin; easily seen through.

^{13.} duties: taxes

of the Roman legion, commanded by a centurion,14 was sent along to protect it. The camel made the caravan possible.

It is said that the first camel the Romans saw was in 46 B.C., when Julius Caesar, 15 at the Battle of Thapsus, in North Africa, captured twenty-seven of them as part of his war booty.16 But as Romans had been in Hither Asia since 200 B.C., it seems certain that they knew of this

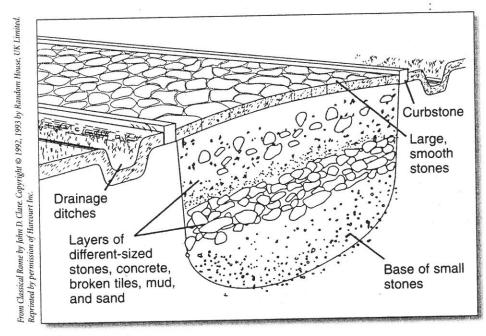
strange beast before.

But they seem never to have been curious about it. It is never seen on the early monuments of Egypt, it did not come from Africa until late in history. Camels were used during the wars of the Persians and Greeks and "the reason," said a Greek, "of putting the camels face to face with the horses of the enemy is that horses fear camels and can endure neither the sight nor the smell of them."

14. centurion (sen-toror'ē-ən): officer who commanded a centuria, a military unit made up of 100 men.

15. Julius Caesar (jool'yəs se'zər): Gaius Julius Caesar (c. 100–44 B.C.), Roman general, statesman, and dictator.

16. booty: goods taken from the enemy during war.



▲ Cross section of a Roman road.



A Relief sculpture showing Roman soldiers dressed for battle.

The camel came from Asia. There are two kinds: a two-humped camel, the Bactrian, which provides a natural saddle between the humps, and a single-humped camel, the dromedary. The name camel comes from the Arabic jamal. Wild camels are unknown. They live with man. Alive or dead, they contain in their bodies almost all that a desert traveler must have. Their milk is drunk, their dung¹⁷ is used for firewood, their flesh can be eaten. The hair of the camel is soft and can be woven into cloth or into tough weavings for the Arabs' "black tents." They can carry a load of five hundred pounds twenty-five miles a day. They can live ten days without drinking water. Their nostrils have trap doors to keep out wind-blown sand. Their feet are like spongy foot pads and will not sink deeply into the sand. They can outrun a horse

and can carry eight times more than a man can carry and four times that of a mule. Camels live in the desert where temperatures rise to 140 degrees, or they can survive in snowbound lands as cold as the arctic. The camel can be hitched to a wagon or to a plow. Cared for, they live long lives, but without man they cannot survive.

The important caravan routes had of course to be protected. This forced Rome to push back its frontiers to make all else secure.

East of Syria, farther east than Mesopotamia, was the vast land of the Persians, ruled then by the Parthians. Trajan pushed the Roman Empire into the lands of Parthia and brought Rome to the Persian Gulf. Trajan had set up his headquarters at ancient Antioch.18 It was known as "the third city of the world" and was a favorite city of

17. dung: animal manure; excrement.

^{18.} Antioch (an'tē-äk): ancient city that was a center for early Christianity; located in present-day Turkey.

the Roman emperors. Its climate was happy and it was an important center for trade.

The legions under Trajan fought to carry the empire to the greatest limits it had ever reached. And as soon as the campaign ended, public works began. "I will," said Trajan, "use the olive wood of my sword to make war breed peace." Trajan did it by building roads and thus creating trade.

Reading Check

- 1. Under Trajan, what work did the Roman legions do in Hither Asia during Rome's time of peace?
- 2. How long was the road called the Via Traiana? What type of terrain did it pass through?
- 3. Why was Petra an important city? How did Petra change after the city was taken over by the Romans?
- 4. Why were spices such popular trade goods? What spices were transported to Rome to be sold?
- 5. Why were camels used in trade caravans?



MEET THE Writer

Victor Wolfgang von Hagen (1908-), author, explorer, and naturalist, is a former director of the American Geographical Society. He led expeditions along Roman roads in Europe and North Africa from 1961 until 1970. He also conducted the first complete study of the Great Tortoise of the Galápagos Islands and has been recognized for his work in helping preserve plant and animal life.