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Bible Archeology and Geography

Jack P. Lewis

History and geography are inseparably connected, for history is the story of how man met the challenges of his environment. Each region of the biblical world presents that challenge in distinctive ways.

A circle with a 1,500-mile radius drawn from Jerusalem would take in every people associated with the OT. The region comprises a north-south expanse comparable to that from Montreal to Nicaragua and an east-west expanse comparable to that from New York to Amarillo, Texas. The area is bounded by five seas: the Black Sea, the Caspian, the Persian Gulf, the Red Sea, and the Mediterranean. Its rivers are the Nile, the Jordan, the Litany, the Orontes, the Abana, the Tigris, and the Euphrates.

THE FERTILE CRESCENT

The Fertile Crescent is a term coined by James Breasted to designate that tillable area which has one tip at the Persian Gulf and the other in the Nile valley. Available water resources made food production possible in an area otherwise surrounded by desert regions—deserts that begin at the Atlantic, cross Arabia, and continue to the Gobi Desert of Mongolia. Water determined not only the location

of settlements but also the trade routes from one center to another. One did not take the more direct route from Babylon to Jerusalem across the desert. He went up the Euphrates, crossed to what is now Aleppo, and then came down from the north via Damascus. Or he went to Mari, to Tadmor, and to Damascus.

Palestine is the land bridge between the Mesopotamian and the Nile valleys where early civilizations developed; it is also a halfway point between the Hittites in the north and the Arabians in the south. Palestine's history is determined by her position. No independent political or economic development could take place; the struggle of neighboring powers engulfed her.

MESOPOTAMIA

Mesopotamia, the name given by Polybius and Strabo to that portion of the Fertile Crescent formed by the Tigris and Euphrates valleys, designates the area that is the scene of the earliest sections of the OT, the land in which the dominating powers of Assyria and Babylon arose, and the locale of at least the early part of the Jewish exile (2 Kings 15:29; 17:6). "By the waters of Babylon . . .," the poet said (Ps. 137). This area, all of which lies north of 30 degrees north latitude—the latitude of New Orleans—influenced Israel more than did Egypt, from the time of the monarchy to the time of Alexander the Great.

In the OT a northern sector of this Euphrates area is called Aram-Naharaim (Aram of the two rivers—Gen. 24:10; Judg. 3:8ff.), but the Greek translators used Mesopotamia for it and thereby contributed a word to our religious vocabulary. The total region today is controlled by Turkey, Syria, and Iraq, but its major portion is in Iraq. With the area open to invasion, marauding tribes descended from the mountains and took over the fields. Periodic migrations from the desert into the cultivated areas took place, but eventually the newcomers were assimilated.

The Euphrates, the longest river in western Asia, is 1,800 miles from its source to the sea. At first its descent is sharp,

but in the last 1,200 miles it falls only 10 inches per mile. Formed from two tributaries, one which begins in the Armenian highlands at a lake 8,625 feet above the sea in the vicinity north-northwest of Ezerum and the other which begins at 11,500 feet elevation northwest of Diadin, the Euphrates takes life where the two join 115 miles above Samasat (ancient Samasata). Flowing first in a southwesterly direction until it cuts through the Taurus Mountains, the river reaches the Syrian plain at Samasat at an elevation of only 1,500 feet. Continuing to a point within 100 miles of the Mediterranean, and at one place 450 miles separated from the Tigris, it has descended to only 628 feet above the sea when it swings around to the southeast to empty finally into the Persian Gulf. Along the way it flows past Jerabulus, which was Carchemish, where Nebuchadnezzar II defeated Pharaoh Necho in 605 B.C. (2 Kings 24:7; Jer. 46:2ff.). Further along its western banks are the sites of Dura Europas and Mari. From Samasat to Hit is 720 miles of treeless country. At Hit the river is thirty to thirty-five feet deep and 250 yards wide and flows at four miles per hour. In this upper region the irrigable land is not more than a thousand yards wide and the surrounding area is arid. Below Hit no tributaries join the river in its 550-mile flow to the Persian Gulf. Much of the water is dissipated through evaporation. The river winds past ancient Babylon and eventually joins the Tigris at Qurna, sixty miles above Bosra, to form the Shatt-el-Arab. This last stream is 1,000 yards wide and from three to five fathoms deep. One estimate is that the two rivers (Tigris and Euphrates) lose 90 percent of their water between Qurna and Amra by dissipation into canals and lagoons. After flowing past Bosra, the Shatt-el-Arab empties into the Gulf. It is thought that in antiquity the course of the river in the lower regions may have been different and may have passed Sippar, Kish, Nippur, Erech, and Ur.

The Euphrates served as a boundary between the Assyrians and the Hittites, divided the eastern and western satrapies of the Persian Empire, later was at various times the eastern boundary of the Roman Empire, and still later

was a border against the Mongols. But it was also an avenue of commerce and its banks have many sites of antiquity representing its long history.

Designated in the Bible as "the river" (Num. 22:5; Deut. 11:24) and as "the great river" (Josh. 1:4), the Euphrates is one of the four streams issuing out of Eden (Gen. 2:10-14). It is the northern boundary of the land promised Israel (Gen. 15:18; Deut. 1:7; Josh. 1:4), and it was reached by Israel during the Hebrew monarchy (2 Sam. 8:3; 10:16; 1 Kings 4:24).

The Tigris, 1,150 miles long, another of the rivers flowing out of Eden (KJV *Hiddekel*, Gen. 2:14), was the scene of one of Daniel's visions (Dan. 10:4). Beginning in Armenia (Turkey) northwest of Diarbekr, this more eastern of the two rivers leaves the mountains 250 miles from the Euphrates and flows southward past Mosul. The Tigris flows more water and is more constant than the Euphrates. Near Mosul was the location of Khorsabad, city of Sargon; and across the river from Mosul on the left bank was ancient Nineveh. Twenty miles further was Kalah (Nimrud). The Tigris is then joined on the left by the Greater Zab. This fertile triangle formed by these two rivers is known as the Assyrian Triangle. Below this junction on the west bank is Kalaat Sherqat, the site of ancient Assur. By the time the Tigris reaches Baghdad the two rivers are only twenty miles apart. The upper Tigris is navigable only to native rafts floating on inflated skins, which in flood times can cover the downstream distance from Mosul to Baghdad in three or four days. There is no upstream traffic. In the upper alluvial area the Tigris lies lower than the Euphrates so that irrigation canals run off the Euphrates and empty into the Tigris.

The climate of Mesopotamia has not significantly changed since the beginning of Sumerian times (5000 B.C.), but the soil has changed as a result of layers of sediment from the rivers and the drift of sand from the desert, which may vary from twelve to twenty-three feet in thickness. Herodotus speaks of harvests of 200 to 300-fold around Babylon in the Persian period; however, the land is not so productive

today. There is a rainy season, and the rainfall is about 8 inches annually, which may be compared with 60 inches in the state of Georgia. While temperatures may drop below freezing at night in the winter, normal summer temperature is 108 degrees Fahrenheit in the shade and 120 to 140 degrees in the sun.

The rivers were capricious and often changed their courses, leaving flourishing cities to decay and abandonment. However, there has also been a salinization of the soil both from the water of the rivers and from surface groundwater. The danger of salinization is mentioned in very early texts and thereafter periodically through history. In northern areas where the water table was lower, the danger was, of course, less; but Sumerian civilization developed in the south and may well have declined under the impact of salinization.

The irrigable land of ancient Mesopotamia was more extensive than that of Egypt. In the middle Euphrates, water for irrigation was either drawn in a skin from the river and dumped into aqueducts or was raised by great water wheels. The lower valley was fertile under irrigation, but the ancient canals were continuously silting and had to be replaced with new canals. While some of the ancient canals can be traced out, not one-hundredth of the old system is now in working order.

When the rains coincided with the melting snows of the Taurus and Zagros mountains, catastrophic floods resulted, giving rise to flood stories. The Sumerian flood story has Zuisudra as its hero, but later stories named Utrahasis and Utnapishtim. The river reaches its maximum in May and its minimum at the end of November, which is exactly the opposite season for these points of the Nile. In the hot summer when most needed for irrigation, the rivers are low. The spring and summer may bring severe dust storms, removing the top of the desert and depositing it on the cultivable land. Beek argued that Woolley's alleged "silt layer" at Ur was really a dust storm deposit. It is through control of the rivers that the modern state of Iraq exists.

It has often been pointed out that climate affected religion in antiquity. The hostile environment in Mesopotamia

fostered belief in gods who were as capricious and unreasonable as were the rivers.

Theories differ on the question of the receding of the coast line of the Persian Gulf. Older students assumed that the gulf once came inland almost as far as Ur and Eridu. Some ancient texts mention Eridu as a port city, but at the present time other students argue that the shore once extended further into the gulf than it does now and suggest that river traffic could be sufficient to explain the allusions to Eridu as being on the sea.

Wheat and barley grew well in ancient Mesopotamia. The total habitable area of Assyria was about 5,000 square miles. It was her need of grain from Babylon that led her to attempt to control Babylon. Her need for trade explains her westward expansion, which brought her into conflict with Egypt.

The north had stone for building, and asphalt used for joining brick and for making floors watertight could be mined at Kirkuk and Hit. Oil, so valuable today, played no role in the ancient world. The mountains in Kurdistan were still covered with trees, and the date palm of the delta goes back to at least the third millennium. Today the Mesopotamian delta has more than 18 million date palms of 350 varieties and is a center of the world's date production.

Mesopotamia is divided into regions. The lower alluvial region is Sumer (the land of Shinar in the Bible, Gen. 11:1ff.); further north is Akkad. Even as late as the Persian period Cyrus denominated himself "King of Sumer and Akkad." The Sumerian area was stoneless; buildings were made of sun-dried brick. It furnished the earliest known writing. Later the area became the heartland of Babylon.

Still further to the north is the land that became Assyria. As we have seen, its chief cities were on the Tigris River. Assyria extended itself over Babylon and then in the west eventually reached to Upper Egypt. Assyria's heartland had a more moderate climate than Sumer did.

West of Assyria between the Euphrates, the Balikh, and the Habor rivers, the Hurrian kingdom of Mitanni developed in the period between the sixteenth and fourteenth centuries. Mitanni is not mentioned in the Bible, but the

Horites, its peoples, are. Beyond Mitanni was the Hittite Empire extending into what is today Turkey.

Data are insufficient to permit the definite location of the Garden of Eden, though it is obvious that it is placed in the Tigris-Euphrates valleys. The two other rivers, Pishon and Gihon (Gen. 2:10-14), are unlocated. The beginning of music (Gen. 4:21) and of metalwork (Gen. 4:22), trades known to us from Sumerian civilization, is mentioned.

The temple towers called *ziggurats* such as that at Ur show the form of construction which has mud brick laid in asphalt with burned brick casing on the exterior, similar to that described for the tower of Babel (Gen. 11:1ff.). Remains of about thirty-five of these structures are known from various Mesopotamian sites.

The ark of Noah is said to have landed in the mountains of Ararat (Gen. 8:4), doubtless the area designated Urartu by the Assyrians. From a very early time a volcanic peak without a crater, now in Turkey near the Russian border, has been designated Mount Ararat. There is no historical record of an eruption of the volcano which formed Ararat. The mountain, covered with volcanic stone, rises 16,946 feet in a gradient of 45 to 60 percent. Its snow line is at about 14,000 thousand feet, but it is scalable, and numerous individuals reach its summit each year. The claims of sightings of remains of the ark which have been made through the centuries are numerous; however, they have no real claim to credibility.

Ur of the Chaldees, from which Abraham and his family migrated (Gen. 11:31; 15:7; Neh. 9:7; Acts 7:2), is most commonly identified with the site in the lower Euphrates valley 120 miles south of Babylon and 150 miles north of the Persian Gulf. Here J. E. Taylor found a dedicatory inscription of Nabonidus in the *ziggurat* designating the place as Ur of the Sumerians. Leonard Woolley's excavations at Ur show it to have been a center of moon worship and to have had a highly developed culture before patriarchal times. While now located fifteen miles from the Euphrates and out in the desert, Ur is thought to have once been on the river and to have had an estimated population of 250,000 people.

A migration from Ur to Haran would represent a journey of about six hundred miles. Cyrus Gordon has attempted to locate Ur in the upper Euphrates rather than in the lower region, but the effort is not convincing.

Haran is located in the Balikh valley of the middle Euphrates region between the Tigris and the Euphrates. In Abraham's day it was also a center of moon cult just as Ur was. The Mari tablets tell that the Benjamites signed a treaty with the king of Haran in the temple of Sin at Haran. The Terah family migration coming from Ur in reality took them from one shrine center to another. Today the main routes of travel have passed Haran by, and it is a quiet Turkish village off the beaten paths of civilization. Its houses—in a treeless plain—are of the mud-beehive type, many examples of which are in northern Syria. Haran is best reached in a side trip from the Turkish city of Urfa (called Edessa in late antiquity). In Abraham's day, Haran was at the intersection of major trade routes—that from Aleppo to Nineveh and that from Babylon to Asia Minor. Although excavations carried out there by D. D. Rice in 1951, 1952, and 1956 revealed the temple of Sin beneath the Islamic mosque-fortress, for all practical purposes Haran is still an unexcavated site. The large mosque is thought to be not more than a thousand years old. No tablets of Terah's day have been found at Haran, nor are there other specific traces of the patriarchs there.

It was at Haran that God made promises to Abraham (Gen. 12:1-3), and many years later the servant of Abraham came back to Aram-Naharaim to seek a wife for Isaac. Still later Jacob came there to serve Laban in exchange for his daughters Rachel and Leah. It is called the land of Aram in the Bible (Num. 23:7; Deut. 23:4; Judges 3:8; Hos. 12:12).

ARAM

We here use the name Aram for that part of the biblical world now controlled by Lebanon and Syria. Like Palestine this region has four areas: the coastal plain, the mountains, the Rift Valley, and the highlands. It extends from the

Amanus Mountains to the Ladder of Tyre, about 260 miles north to south, and 140 miles from the sea to Palmyra.

The Mediterranean coast from Turkey to Sinai extends 400 miles but in Lebanon is never more than four miles wide and is broken into short strips by promontories. Often the mountains rise almost out of the sea, and at Nahr al-Kalb (Dog River), just north of modern Beirut, they reach the sea, forming an effective barrier to passage. The plain is well-watered by the runoff from the adjoining highlands and is very fertile. The plain in places such as around Tyre has the heavy, red soil that makes for excellent cultivation. It is not extensive enough, however, to support a large population, making trade essential to existence. Major caravan routes did not connect Galilee with this area. Israel made no effort to conquer it even in the golden age of David and Solomon, and neither did Aram attempt to dominate Israel. Rather, the two allied with each other.

Extending from the Amanus Mountains on the north to the border of Israel on the south are the Lebanon Mountains, which limit communication with the interior. The major break in the mountains at Nahr el-Kebir forms the division between Lebanon and Syria; but below this point there are no passes, and traffic must go over the mountains. Peaks extend up to 11,824 feet and are snow-covered six months of the year, giving the name Lebanon (from a Semitic root meaning white) to the area. The mountains receive a great deal of rainfall. Within Lebanon they stretch 105 miles southward to a point just north of Tyre. Once forested with the famous cedars of Lebanon, the mountains are now largely bare. Only a few cedars remain in a protected grove. Hills and ravines make communication between one part of the country and the other difficult, and isolated groups find it easy to maintain their identities.

The Biqa', called "the valley of Lebanon" in the Bible (Josh. 11:17; 12:7), lying between the two mountain ranges, is in the area of Hamath 1,015 feet above the sea. The valley, however, rises to 3,770 feet elevation at Baalbek and varies in width from six to ten miles. Near Baalbek the Asi River begins and drains northward into Syria. The Litany

River begins not far away, drains southward and then turns abruptly westward to empty into the sea between Tyre and Sidon. At the plain of Ijon (1 Kings 15:20) the valley has descended to only 1,600 feet elevation. The Biqua' contains the most favorable soil in Lebanon for cultivation.

The Anti-Lebanon range rises south of Homs and extends southward to Mount Hermon and beyond. Hermon, also called Siron (Deut. 3:9; Ps. 29:6), rises to 9,383 feet and is at times visible as far south as Frank Mountain near Bethlehem. Though covered with snow in the winter and though snow patches remain in the summer, it has no true glaciers. The melting snows feed springs on all sides of the mountain and give life to the Jordan and to the Litany.

Precipitation, falling between November and March, decreases in Lebanon as one goes from north to south and from west to east. Beirut has about 31.9 inches of rain a year, but in the mountains the figure may rise to 59.7 inches. In the Biqua', however, it decreases to 24.8; and at Damascus, beyond the next range of mountains, rainfall is only 10 inches. The contrast between spring, when everything is green, and summer, when vegetation has burned, is everywhere striking.

The fig, the olive, and the vine are native to Lebanon, but it was the cedars (mentioned both in inscriptions and in the OT) which attracted ancient kings to the region (2 Kings 14:9; Ps. 29:5; Zech. 11:1-2). About four hundred of the cedars, the tallest of which is about eighty feet, remain in a grove above Bisharri.

The Lebanese area faced the sea with many anchorages along its coast, but it had a sparseness of farm land from which to feed its population. These factors made the Phoenicians a seafaring people, and it is in this role that the cities of the Lebanese coast are of interest to the Bible reader.

Byblos, despite the fact that it is not mentioned in the Bible, bequeathed its name to history in the word "Bible," for the town was named from the word the Greeks used for papyrus. The story of Wen Amon in the eleventh century tells of an Egyptian who came there to trade papyrus for

cedar to make a ceremonial barge.

Letters from King Zimreda of Sidon are in the Amarna collection. Sidon later felt the power of the Assyrians and still later that of the Babylonians and the Persians. A great mound of murex shells there tells of Sidon's significance in the purple industry. Sidon (the KJV also uses the spelling Zidon) is mentioned as a place from which Laish (taken by the Danites) was isolated because of the mountains (Judg. 18:7, 28). Today called Saida, the city is about twenty-five miles north of Tyre. It is mentioned as a boundary point as early as the blessing of Jacob (Gen. 49:13). Sidon's gods were among those served by the Israelites (Judg. 10:6), and Solomon had a Sidonian wife (1 Kings 11:33). Elijah spent a part of the drought at Zarephath (modern Serafand), a city belonging to Sidon, where a widow provided for him (1 Kings 17:9). Sidon is often mentioned in the oracles of the prophets, which include references to its mercantile position (Isa. 23:2-4; see also Jer. 25:22; 27:3; 47:4; Ezek. 27:8; 28:21, 22; Joel 3:4; Zech. 9:2). The Sidonians were among those furnishing cedars for temple reconstruction at the time of Zerubbabel's return from exile (Ezra 3:7).

Tyre is particularly important because of Hiram's relationship with Solomon. The city was situated on a small island and its harbor was protected by a breakwater built by Hiram. The island is connected with the mainland by an isthmus first formed by Alexander the Great but now covered with sand. Tyre is mentioned in the Amarna letters and in the Keret epic from Ugarit. Wen Amon visited it about 1100 B.C. Hiram furnished materials to David for the building of his house (2 Sam. 5:11; 1 Chron. 14:1) and then to Solomon for the temple (1 Kings 5:1; 1 Chron. 22:4; 2 Chron. 2:3-18). Tyre's king fought along with Ahab against Shalmaneser III at Qarqar in 853 B.C. Ahab married Jezebel, daughter of Ethbaal, king of Tyre and priest of Ashtart. The prophets saw the wealth and pride of Tyre as sure evidence of its approaching doom (Isa. 23:1-18; Jer. 25:22; 27:3; 47:4; Ezek. 26:2-28:18; Joel 3:4-8; Amos 1:9-10; Zech. 9:2-4). Nebuchadnezzar II besieged Tyre thirteen years before it

yielded. It later came under the domination of Persia and still exported cedars and other products at the time of the reconstruction of the Jewish temple. Roman provincial administration tended to combine the entire Levant (the East) into one province, Syria. In the NT period Herod the Great did building at Tyre, Sidon, Byblos, Beirut, Tripolis, and Damascus.

Syria is first important in the OT because of the roads that cross it. One road crossed the desert from the Euphrates to Palmyra (Tadmor), proceeded to Damascus, then southward across the Jordan to Megiddo and to Egypt. Roads that hugged the line of springs at the base of the Anti-Lebanon Mountains converged on Damascus. Every road to Phoenicia had to pass through the valley of the Barada River. One could cross in this way into the Lebanese valley and follow the Orontes northward with one branch going off into the Syrian gates into Asia Minor but with the main road swinging eastward below the Taurus Mountains to the Euphrates where that river comes nearest the Mediterranean. The road then continued to the Tigris River and down to the Persian Gulf.

It is surprising that the Syrian cities are not mentioned in the migration of Abraham, for he must have passed through them. His servant Eliezer came from Damascus. The Orontes River waters northern Syria, flows past what became Antioch, and then empties into the sea. Aleppo, not on the river and not mentioned in the Bible, is older than the patriarchs. Located at the crossroads in northern Syria, it has been occupied by all the nations who passed this way. Today it is a city of about half a million.

Neither is Ebla (Tell Mardikh), lying forty-four miles south of Aleppo, mentioned in biblical narratives. This site, covering one hundred forty acres and estimated to have once had a population of 260,000, has since 1975 yielded more than 16,500 cuneiform tablets dating about 2300 B.C. and written in Sumerian and in a language now called Eblaite (or "Paleo-Canaanite"), which reveal a civilization in upper Syria that was previously undreamed of. The Ebla tablets are the earliest known West Semitic texts. Ebla traded with Anatolia,

Palestine, and western Iran. In the tablets geographical names like Canaan, Hazor, Megiddo, Dor, Joppa, Lachish, Gaza, Salim (Jerusalem?), Sodom, and Gomorrah occur. Names of Canaanite deities like Dagon, El, Asherah, and Kemosh have been identified. Preliminary reports assert that personal names like Eber, Abraham, Ishmael, Esau, David, Michael, and Micaiah are paralleled though there is no reason to connect any Eblaite figure with a biblical one. The Ebla materials offer exciting possibilities in the study of OT backgrounds.

Also in the north of Syria, near where Latakya is now, was Ugarit. Ugarit is not mentioned in the Bible, but excavations of the 1930s indicate that this place had a thriving civilization in the second millennium B.C. Ugaritic tablets reveal a city rich in trade with a religious system comparable to that denounced by the Hebrew prophets. Babylonian, Hurrian, Hittite, Aegean, and Egyptian cultures all mingled there.

Much further south the Barada (Abana) flows east from the Anti-Lebanons to water Damascus in what otherwise would be desert. Damascus, at 2,264 feet elevation, is seventy miles from the sea and 160 miles northeast of Jerusalem. The city turns from the sea to dominate the trade routes of the steppe and desert. Roads leading from Arabia, Mesopotamia, Egypt, and Asia Minor converge on her. While the site is indefensible, Damascus usually allied with her neighbors. The Barada makes the area an oasis before the river breaks up into about five streams and is absorbed in the desert eighteen miles east of Damascus. The Pharpar (2 Kings 5:12; possibly the Nahr al-A'waj) also flows eastward on the south of Damascus. Mohammed is said to have remarked on his refusal to enter the oasis that one can only go to Paradise once and that he did not wish to do so here on earth.

Damascus has never been the center of an extensive empire, though it has made continual efforts in this direction. It was a rival to Samaria and Jerusalem during the divided kingdom period, at which time an Aramaean kingdom was reigned over by the series Ben Hadad I and II,

Hadadezer, Ben Hadad III, Hazael, and Rezin. Eventually Damascus was overrun in 733 by Assyria. Today it has a population of one and a half million.

The "way of the sea," which connected Egypt with Mesopotamia, passed through Damascus and connected it with Palestine. There were constant trade contacts between the two regions. Hamath and Riblah, major cities of Syria, were located in the areas drained by the Orontes. Other Aramaean states besides Damascus were formed in North Syria: Aram Maacah, Aram Bethrehob, and Zobah.

PERSIA

Since Persia had no chronicler of its own, no native Herodotus or Xenophon to tell its story, it has remained comparatively unknown. Our information derives from the Jews and the Greeks who were the enemies of the Persians. Archeological excavation of the past generation, however, has brought Iranian cultural history to light through pottery and cuneiform inscriptions on clay and stone. Of relevance to the Bible chiefly in the exilic and postexilic ages, Persia is mentioned in the Bible in a number of late passages (2 Chron. 36:20; Esth. 1:3; Ezek. 27:10; 38:5; Dan. 8:20; 10:1, 13, 20; 11:2).

Persia proper, as distinguished from the total empire it came to control, lies east of the Tigris-Euphrates valley in the area today ruled by Iran. Located between the Persian Gulf, the Caspian Sea, and the Indus basin, Persia covers an area twice the size of Texas. On the west lie the Zagros Mountains, which have a width of 125 miles and extend northeast to southeast for 620 miles. Peaks of the range extend up to 5,570 feet. The Elburz range, stretching along the shores of the Caspian Sea with peaks up to nineteen thousand feet, forms a northern barrier, and the Makoran range on the east separates the area from Pakistan.

Called by one writer "the driest place on earth," two-thirds of the area is desert. Rainfall around Teheran ranges between 9 and 11 inches, falling only in the winter season (November to March). Between the mountains is the Iranian

plateau, averaging three thousand feet in elevation. The plateau has some oases, but is chiefly cultivatable only in the areas that can be irrigated with water from the mountains. The melting snows of winter bring water. Elaborate underground channels necessary to avoid evaporation in the high temperatures are maintained today, as they doubtless have been since the beginning of history. Harvest is finished by the end of April. The hot summers with temperatures over the 100-degree mark were noted by the Greek historians, who tell of the barley popping when spread out to dry (Strabo 15. 3. 10).

Within the mountains are long, narrow valleys furnishing excellent pastureland. As temperatures rise in the lower valleys, herdsmen find it necessary to move their herds to upper pastures, making for a nomadic life.

Though bordered by the Caspian Sea, the Persian Gulf, and the Gulf of Oman, ancient Persia was landlocked. Unlike the Greeks, whose life came from the sea, the Persians were not a seafaring people. Commerce was overland and the significant cities lay on the trade routes. Persia was the land bridge between Mesopotamia and areas that lie further east. Limited on the north by the Caucasus Mountains, Achaemenid Persia really faced west. Here she came into conflict with the Greeks, but Athens and Sparta successfully resisted Darius and Xerxes. Darius was defeated at Marathon in 490 B.C., and Xerxes lost the naval battle off Salamis in 480. A hundred years later fortunes had reversed; Alexander swept over the East and attempted to fuse two cultures by marriages. However, the union was short lived and Rome eventually became Alexander's true heir; yet Rome never extended to Persia.

In earlier times, Elam, located on what is today the Iranian plateau, had Ecbatana as its capital (Herodotus 1. 98-100). It sat astride the most prominent trade route from east to west. Elam, as a descendant of Shem, already appears in the table of nations in Genesis 10:22; and Chedorlaomer, one of Elam's kings, participated in the raid that took Lot captive (Gen. 14:1ff.). Some of the prophets have oracles against or mention Elam (Isa. 21:2; 22:6; Jer. 25:25; 49:34-39; Ezek. 32:24; Dan. 8:2). But, in general, the world of the OT

was the scene of the struggle of the powers of Mesopotamia with Egypt until the exilic age when the Medes and the Persians burst onto the scene.

The Medes are first mentioned in history by Shalmaneser III in 853 B.C. in a list of his enemies. They occupied the northern part of what is now Iran. Among the other places of exile of the northern tribes are "the cities of the Medes" (2 Kings 17:6). Isaiah 21:2 lists Media among threatening forces in his oracles. The Medes captured Assur in 614 and then joined with the Scythians and the Babylonians in the overthrow of Nineveh in 612. They then moved into the northern parts of the defeated empire as the Babylonians did into the southern part. By expanding into Asia Minor they limited Babylon on the north. During this period Persia, lying east of Babylon, was only one of the vassal states of Media. Jeremiah points to the Medes as the eventual destroyers of Babylon (Jer. 51:11).

It was the Achaemenid kings, however, who built and for two centuries maintained in one family the Persian Empire—an empire extending from the Indus River on the east to the Aegean on the west, and from the Oxus to the Nile. Isaiah 43-45 comments on Cyrus' lightninglike rise to power. Though king of Anshan (which seems to be southern Elam and especially the area around and including Susa), Cyrus set himself to overthrow Astyages, ruler of the Medes. After his troops had mutinied, Astyages himself was captured in 549 B.C., and Cyrus proceeded to Ecbatana, Astyages' capital. The new state built by Cyrus consisted of Medes and Persians; Ecbatana was now maintained as a summer residence. Cyrus describes himself as "King of Anshan; King of Persia; King of Babylon." Cyrus pushed rapidly westward. Sardis was captured in 546, Babylon in 539, and then Cyrus' successors extended themselves into Egypt in 525. Within a thirty-year span the Achaemenids had built an empire larger than any the world had seen west of China—an empire to last until the conquests of Alexander the Great in 330 B.C.

Darius I molded these diverse regions into an organized empire with roads and an efficient post system

(Herodotus 5. 52-54; Esth. 3:13). Horses were kept at each station so that a courier could have a fresh mount and set off immediately for the next station. The "King of Kings" ruled over twenty satrapies whose names Herodotus preserves (3. 89f.); Judah belonged to that region called "across the river." The world had never before known rulers of such wealth and power. The law of the Medes and Persians, not subject to the whims of rulers, kindled the imagination of the Middle East. Darius was the first of the Achaemenids to subscribe to the ideals of Zoroastrianism, but Cyrus had earlier proved tolerant, allowing the Jews and other subject peoples to rebuild their temples and to worship in their own way. Zoroastrianism's ideals of the continuous struggle between good and evil, light and darkness, was not out of harmony with such policies. The Persians allowed each country to have its own language, customs, and system of laws. The trilingual royal inscriptions represent the languages spoken by the people, but Aramaic was the language of commerce used all the way from India to the Mediterranean. Gold and silver coins called *darics* were used for exchange in the empire.

The Persians solved the problem of ruling their diverse territory and of its extremes of climate by moving their capital three times a year. In the winter it was Susa on the Euphrates side of the Zagros Mountains, in the spring it was at Persepolis, and in the summer at Ecbatana, where the increased elevation could make life bearable. Rages (Ray in the suburbs of Teheran) was not a capital but has some interest to biblical students because of its role in the book of Tobit. Of these four cities only Ecbatana and Susa are actually mentioned in the canonical books of the Bible.

Scenes from Esther (1:2; 2:5) and Nehemiah (1:1) are from Shushan (Susa), the ancient capital of Susiana (now Khuristan). Susa was 150 miles north of the Persian Gulf and was on the Mesopotamian side of the Zagros Mountains rather than on the Iranian plateau itself. The Susa plain is a bay of the Mesopotamian lowland extending far into the Zagros. Only a hundred miles from Sumer, it is really a province of Sumer, but unlike the Mesopotamian region it

does not grow dates as lower Mesopotamia does; hence, though on the west of the mountains, it adheres to the plateau. Susa had roads both to Ecbatana 190 miles away and to Persepolis, 585 miles away. Its situation offered good communication with Mesopotamia and with Asia Minor. The Achaemenids built a Royal Road from Susa to Sardis.

Susa is much older than Darius; excavations reveal habitation back to 4000 B.C., but by 521 Darius had taken up residence there (Herodotus 3. 129). Buildings were made of sun-dried or of kiln-fired bricks. The palace surpassed that of Ecbatana in splendor. Darius has left behind an inscription describing the building of his palace out of materials brought from many countries. The royal buildings were destroyed by fire during the reign of Artaxerxes I (465-425 B.C.), but the site was continuously occupied until the time of the Islamic conquest. Excavations were begun in the nineteenth century on the four tells which mark the remains of Susa. Jacques de Morgan, R. de Moccquenem, and R. Girshman have all worked there. Recently a statue of Darius has been unearthed. The village of Shush, near the old site, claims to have the tomb of Daniel the prophet, venerated by the Shi'ite Muslims.

The river Ulai (Dan. 8:2, 16) has been identified with the Karun. At an earlier time the Karun had a branch that ran about two miles east of Susa. The stream is estimated to have been nine hundred feet wide and twelve to twenty feet deep. Alexander the Great is said to have sailed on it from Susa to the Persian Gulf.

The Behistun rock is a massive memorial carved on the side of a 3,800-foot peak near the village of Bisitun, from which the rock takes its name. Here alongside the main east-west road, Darius I in 516 B.C. (the year the temple in Jerusalem was restored) carved a panel 300 feet above the plain in which he depicts himself in life size treading on the neck of Gaumata, who had opposed his rise to power. Behind Gaumata is a procession of other rebel leaders roped together. An inscription in old Persian, Elamite, and Akkadian, done in cuneiform characters, tells of Darius' rise to power. The inscription was visible through the centuries, but it was not

until 1835 that H. C. Rawlinson succeeded in copying it and in deciphering cuneiform. This accomplishment opened to the Western world the secrets locked in that script.

Ecbatana (today Hamadan) the ancient capital of Elam, was located on the main trade route that connected Mesopotamia and the Iranian plateau just where that route enters the plateau. It was also located on the road that came north from the Persian Gulf leading on to the Caspian Sea or to Armenia. Ecbatana was made a summer residence by Cyrus, and there in the archives during the reign of Darius I (Ezra 6:2) was found a copy of his decrees concerning the rebuilding of the temple in Jerusalem. Ecbatana was also the home of Sarah in the story of Tobit (Tobit 3:7), and the book of Judith (1:1-4) describes its fortifications. Hamadan is located on top of the ancient remains so that extensive archeological work has not been carried out, but native digging has brought to light many Achaemenid objects.

Arrian (*Anabasis* 3. 19-20) locates Rages eleven days' forced march for Alexander's army from Ecbatana. Rages, a road center, was located south of the Alburz Mountains which border the Caspian Sea. Occupied as early as 5000 B.C., Rages has left ruins which are now about five miles southeast of Teheran in an area called Ray. Tobit, who is presented as a Jewish exile in Nineveh, had once lived in Rages and had left ten talents of silver with Gabael. In the course of the story of how Tobias and Azarias journeyed to recover the money, Rages is mentioned six times (Tobit 1:14; 4:1, 20; 5:5; 6:12; 9:2).

No Western writer before Alexander the Great mentions Persepolis. Even Ctesias, the Greek physician who lived at the court of Artaxerxes II (405-358 B.C.), seems never to have heard of it. It also goes unmentioned in the Bible. Cyrus had built his capital at Pasargadae in a plain of 5,000 feet elevation. A monumental gate found there had the inscription: "I am Cyrus the king of the Achaemenid." Of his great audience hall, only a single pillar forty feet tall remains standing. Less than a mile south of it is the tomb of Cyrus. The Iranian archeological authorities have excavated the Pasargadae area since 1949.

Somewhat farther south and at a lower elevation, fifty miles from modern Shiraz, Cambyses founded Persepolis. But it was Darius (521–485 B.C.) who was its builder, and the construction was continued by Xerxes. Never really an administrative center, Persepolis was built for the glory of the Achaemenid kings. Here at the great Nowruz festival the king received the delegates and their tribute from all over the empire. They are depicted on the monumental staircase. Eventually Persepolis was burned by Alexander the Great and was never reoccupied; hence, it is quite well preserved.

Travelers such as Pietro delle Valle (ca. A.D. 1622) visited and described Persepolis, but the place remained comparatively unknown until it was finally excavated, first by the Oriental Institute of the University of Chicago, 1931–1934 and 1939 and then by the Iranians. A monumental staircase leads up to a gate-building opening onto a gigantic terrace which is 1,500 by 1,000 feet. On the platform stood the hall of 100 columns, and there Xerxes had his palace and harem, which are identified by an inscription that designates the builder. Also there is the audience hall of Darius and Xerxes. In the hillside near Persepolis are the tombs of the later Achaemenid kings. Unparalleled in the world, Persepolis reveals some of the greatness of those who built a world empire and then let the Jewish exiles return home.

THE HITTITE LAND

The Hittites are treated in the Bible as inhabitants of Palestine. Heth himself is listed as a descendant of Canaan (Gen. 10:15). Along with others, Hittites regularly appear in lists of Canaanite inhabitants (Gen. 15:19-21; Josh. 3:10). Ezekiel charges that the mother of Jerusalem was a Hittite (Ezek. 16:3). Abraham bought the cave of Machpelah from Ephron the Hittite (Gen. 23:1ff.); Esau married Hittite women (Gen. 26:34; 36:2); Uriah was a Hittite (2 Sam. 11:3); Solomon had Hittite princesses (1 Kings 11:1) and traded with the Hittites (1 Kings 10:28-29; 2 Chron. 1:17); and even at later times Hittite kings could be presumed to participate

in Palestinian wars (2 Kings 7:6).

The name Hittite was used loosely in antiquity. Assyrian inscriptions sometimes refer to the west as Khatti, that is, the Hittite Land. Sargon's records call the people of Ashdod Hittites. However, in this section of our study we use the term Hittite Land to designate an area that is in modern Turkey—an area that lies off the main scene of OT history. In antiquity no one power dominated the whole of Turkey. Many peoples reacted against each other. The table of nations (Gen. 10) lists the figures Lud, Meshech, Tubal, and Togarmah, whom OT scholars conjecturally assign to the Hittite area, but the Hittite empire had disappeared before the kingdom of Israel arose. Extrabiblical sources do not suggest for it an influence south of Kadesh on the Orontes.

At the height of its power between 1700–1200 B.C. the Hittite Empire extended from Mitanni on the east to the sea on the west, and from Palestine on the south to the Black Sea on the north. Its capital was Hattusha (Boghazköy), which has within this century been excavated; its thousands of recovered tablets have been deciphered with startling results. The Hittite land is cut off from the Fertile Crescent by the Taurus Mountains, part of a system that stretches in an easterly direction from Spain to China. Peaks extend up to more than ten thousand feet, are snow-capped, and form an effective barrier limiting commerce to certain passages. One such pass is the "Syrian Gates" which connects Antakya with Iskenderun in Turkey today. Here beside the modern highway which seeks a gentler slope can be seen remains of an earlier road that did dozens of U-turns as it zigzagged up the mountain.

Semites did not advance beyond the Taurus, but the peoples beyond that barrier often invaded the Fertile Crescent. The Hittites conquered Babylon about 1600 B.C. but were unable to maintain domination in this region, and the kingdom of Mitanni grew up as a buffer between the Hittites and Assyria. Egyptians and Hittites struggled for domination of Palestine, but effective campaigns of Thutmoses III at Megiddo in 1468 B.C. and of Rameses II at Kadesh on the Orontes in 1300 B.C. brought a stale-

mate. Rameses II and Hattusilis made a treaty of non-aggression in 1284—the first known in history. Both Egyptian and Hittite copies of this treaty have been preserved; the border between the two powers is set to the south of Kadesh in middle Syria. Eventually the Hittite Empire crumbled under the impact of the invasions of the Sea Peoples.

After the fall of Hattusha we have no records for Asia Minor proper, but Syria was ruled for a time by both Aramaean and Hittite kings. Over the years, influences from these areas may well have been felt in Palestine in the ways the Bible suggests.

Solomon's trade extended to the Hittites. On the basis of cuneiform evidence it is thought that Kue, where he acquired his horses (1 Kings 10:28; 2 Chron. 1:16-17), some of which he used for his chariots and some of which he sold, is to be located in the plain that in Roman times became Cilicia but now is in Turkey south of the Taurus range.

EGYPT

One of the earliest cultures to develop, Egyptian civilization was already 3,000 years old when Greece came into being. The life of Egypt has always been the Nile River. An ancient oracle of the god Amun said, "Egypt is the land watered by the Nile in its course; and those who dwell below the city of Elephantine and drink that river's water are Egyptians." Herodotus called Egypt "the gift of the Nile"; while an Arab general in the eighth century said of it, "All its wealth comes from the blessed river that moves through it with the dignity of a Caliph."

On the Nile today one can see the boats called *feluccas* sailing just as they are represented in the pictures in the early tombs. They float downriver with the current but go upriver with the aid of the wind. The Nile, extending 4,145 miles, is probably the world's longest river, followed by the Amazon with 4,000 miles. The Mississippi-Missouri was once taken to be the longest, but the U.S. army engineers now give its length as 3,891 miles. With some tributaries originating

6,000 feet above sea level, the Nile wanders from its source at Lake Victoria to the Mediterranean at Rosetta for 4,145 miles while covering an airline distance of 2,450 miles. It drains a vast area of northeast Africa.

Unlike the rivers in North America, the Nile flows northward. It is fed by rains in the interior of Africa where rainfall averages 50 inches a year; then the river is formed by the junction of the White Nile and the Blue Nile at Khartoum, 1,897 miles from the Mediterranean. Khartoum is 1,300 feet above sea level. The Nile is joined by its last tributary at Atbara, 200 miles below Khartoum, and then it traverses a course of 1,600 miles (40 percent of its total length) without a tributary. Below Khartoum there are six cataracts, only one of which is in Egypt proper. Within Egypt the Nile flows its course of 930 miles. Though formerly the river was navigable from the Mediterranean up to the second cataract, now the new high dam blocks navigation at Aswan. Before reaching Aswan from the south, the Nile flows through granite mountains which confine it to its bed, and then it reaches its last cataract at Aswan (Syene of the Bible; Ezek. 29:10; 30:6). However it is customary to number the cataracts from the Mediterranean so that the Aswan cataract is called the first one. It was at this point that the ancient site of Yeb (Elephantine) was located. Here, 550 miles from the Mediterranean, the Aswan dam with locks for navigation was built in 1902 in order to impound water for irrigation purposes. More recently the high dam has been constructed with Russian aid. Not only is the Nile a source of water for irrigation but, as the main traffic artery of Egypt, doubtless has discouraged the development of good road systems.

At Cairo the river is split by an island so that near the hotels it does not appear in its full width. It is actually between 550 and 990 yards wide. Twelve miles below Cairo the Nile divides into the Rosetta and Damietta branches, each of which is 146 miles long. The depth of either branch is about twenty-three feet when at full flood. The triangle formed by the watered areas of these streams makes up the Delta, a region 125 miles north to south and 115 miles wide.

At one time there were seven branches of the Nile in the Delta, but now there are networks of canals.

The rains in the mountains of Abyssinia cause an annual overflow which in turn brings rich soil from the highlands of Abyssinia and spreads it over Egypt. Unlike rivers in America that are at low water in the summer, the Nile rises in June and reaches its peak in August. The flood lasts about four months and near the beginning of October the river is back in its normal banks. At Cairo the difference between the lowest and highest water levels is twenty-six feet. Inscriptions record flood levels as early as the fourth millennium B.C. Pliny wrote, "at twelve cubits, hunger; at thirteen, sufficiency; at fourteen, joy; at fifteen, security; at sixteen, abundance." Since a minimum flood could mean drought and famine, likely the flood made the difference between the fat years and the lean years of the Bible. "To rise and sink like the Nile of Egypt" was a proverbial phrase used in Palestine (Amos 8:8; 9:5). Today the flow is regulated by dams and a series of canals, but these are not an unmixed blessing. The dams prevent the nourishing silting that once came with the floods, so that the land grows less productive. In Egypt agriculture is entirely dependent on irrigation for the average rainfall at Cairo is only 1 to 2 inches a year and at Alexandria only 8 inches. The uniformity of the Egyptian's world left its mark on his beliefs.

Egypt lies entirely south of 30 degrees north latitude (the latitude of New Orleans). It was the unification of the two regions, upper and lower Egypt, with their symbols of the lotus and the papyrus, that gave life to Egypt. The Nile valley is rarely wider than twelve miles and is bordered by steep cliffs. Ninety-nine percent of the population lives in the valley, which is only 3.5 percent of the land area of modern Egypt. The rest is desert. Egypt was never invaded from the east, west, or south, but was vulnerable from Canaan across the Sinai peninsula.

Memphis, the first capital of Egypt after the unification of upper and lower Egypt, was built by Menes (or Narmar) about 3100 B.C. Called Noph in the Hebrew Bible from its Egyptian name Men-nefer, Memphis was the capital in the

Second Dynasty when Djoser built the step pyramid nearby at Saqqara. During the Hyksos period (1750–1570 B.C.) before Avaris in the Delta was chosen, Memphis served these rulers as their center. Ptah, who was the oldest of the gods and the creator of mankind, had a temple at Memphis (Herodotus 2. 99). His symbol was the Apis Bull.

Exposed as it is, Memphis was frequently sacked by invaders such as Esarhaddon of Assyria and by the Persians. It declined after the founding of Alexandria but continued into the Christian period. Theodosius (A.D. 379–395) ordered its temples destroyed, and finally the general of Caliph Omar completed the demolition. Stones from Memphis went into the building of Old Cairo. In the OT both the prophets Jeremiah (Jer. 46:19) and Ezekiel (Ezek. 30:13) threatened Memphis with destruction.

Flinders Petrie and the staff of the University of Pennsylvania Museum have excavated monuments of this city whose name to the prophet Hosea (9:6) symbolized Egypt itself. At the site of the village Meit Rahina, about thirteen miles south of Cairo, is to be seen the alabaster sphinx of Ramses II of the Nineteenth Dynasty (ca. 1293–1225 B.C.). Two colossal statues of Ramses II were found here. One has been re-erected in the central square of the train station of Cairo. The other, lying prone on the site, has been enclosed in a specially constructed building.

Thebes, called “No” in the OT, was the chief city of upper Egypt and was its capital from the time of the expulsion of the Hyksos (ca. 1575 B.C.) to the Assyrian invasion under Ashurbanipal (ca. 661 B.C.). A Theban prince of the Eleventh Dynasty was the first to take the title “King of Upper and Lower Egypt”; and Kamose, a Theban, freed Middle Egypt from Hyksos domination. Homer speaks of “hundred-gated Thebes from which valiant men issue forth on missions of conquest.” A center of worship of the god Amun, Thebes is called “No-Amon” in Nahum 3:8. It is threatened by the prophets Ezekiel (30:14-16) and Jeremiah (46:25).

The site of Thebes, 450 miles south of Cairo, is today surrounded by the ruins of temples and burial complexes,

many of which have been visible throughout the centuries. The modern city of Luxor with its 30,000 population occupies only a part of the ancient site. On the east side of the Nile are Karnak and Luxor, while on the west side are the valley of the Kings, the valley of Queens, Deir el-Bahri of Queen Hatshepsut, the Qurneh temple of Seti I, the Ramesseum of Ramses II, and Medinet Habu of Ramses III. The Egyptians built their homes, since decayed, out of clay. They built their temples of limestone from the desert and of granite from Aswan. These have defied time and are most impressive.

Heliopolis, that is, "On" (Gen. 41:45, 50; 46:20; Jer. 43:13), was located nineteen miles north of ancient Memphis. It is now Tell Hisn, northeast of Cairo near the village of Metiryeh. As its name suggests, it was sacred to the Egyptian sun god, Re. Strabo (17.1.27) claims the city was laid waste by Cambyses.

The pyramids were already old when Abraham came to Egypt, but no records inform us of places he visited. The sojourn of the Israelites was in a district called Goshen (Gen. 45:10; 46:28ff.; 47:1ff., 11; Exod. 8:22; 9:29). While this name does not occur in Egyptian sources, it is thought to lie in the northeastern Delta. It was an intermediate meeting place for Joseph and his father (Gen. 46:28) when the latter came to Egypt. It likely was north of and included the Wadi Tumilat, a fertile area which connects the Nile with the Bitter Lakes. It is irrigated by a canal from the Nile. Raamses, built by the Israelites (Exod. 1:11) is possibly the location of San el-Hagar; Pithom may be Tell el-Ratabeh; and Succoth, Tell el-Maskhutah. The identifications are disputed. The buildings at Tell el-Maskhutah, built partly of bricks with straw and partly without straw, are now thought to be fortifications instead of store chambers as formerly thought. We have no specific evidence in secular history of the Israelite sojourn in Egypt.

SINAI

The Sinai peninsula, lying between the Gulf of Suez and

the Gulf of Aqaba, is a triangle with sides of 190 miles and 130 miles and a base of 150 miles. The Wadi-el-'Arish (the brook of Egypt), which drains a large segment of northern Sinai, is the natural boundary between Palestine and Sinai. From Kantara on the Suez Canal to Raphia is only 117 miles. Thutmoses III took his army from Sile in Egypt to Gaza in ten days, and later Titus did the same in five days.

Covered with sand dunes in the north and with mountains and deep canyons in the south, Sinai is a land of transit. Egyptians mined turquoise and copper in its mountains and called it the "land of mines." Even today it has supplies of manganese and oil. No doubt Bedouin have sparsely roamed its wastes from an early time, as they do today. Sinai's position made it a place one had to cross to get from Egypt to Palestine.

While there are lists of Israel's camping places (Num. 33 and Deut. 1), none of these has been definitely located. At the dividing point between Egypt and Sinai, the Red Sea comes to within 100 miles of the Mediterranean. Part of this distance is taken up by the Bitter Lakes. No markers tell where the Israelites crossed the sea, and the matter is disputed.

Some scholars have questioned that Mount Sinai is in the peninsula at all. In North Arabia there is a mountain called Jebel Hanab where the volcano of Jebel el-Badr was active in historic times. The Bedouin regard it as sacred and do not let their flocks approach it (cf. Exod. 19:23). Some have suggested that Horeb should be in this region. It would better fit with the position of Midian (of whom Jethro was a priest) which at some times is related to the mountainous area of Saudi Arabia. However, these arguments are inconclusive.

Because of the terrain, there are a limited number of possibilities of moving through Sinai. Israeli scholars tend to identify the Reed Sea (identified with the Red Sea as early as the Septuagint version) with Lake Sirbonis; they argue that the Israelites crossed the sand bar extending out into the Mediterranean and that Mount Sinai is Jebel Hallal, located about twenty-five miles west of Kadesh Barnea. However, prominent ways of crossing Sinai would include the "way of the land of the Philistines" running from what is now

Kantara to Gaza. This way was well guarded by the Egyptians and was forbidden the Israelites (Exod. 13:17). Further south is the "way of Shur," which connected the area of modern Ismalia with Beersheba. Though Hagar used this road (Gen. 16:7), the Egyptians also had fortifications here. Still further south is the "way of Mt. Seir" (Deut. 1:2), which likely corresponds to the present Pilgrim's road leading from Suez to Eilat. Finally, there is the desert road which uses the wadis in the south of the peninsula and passes near Jebel Musa, the traditional site of Mt. Sinai or Horeb (Exod. 3:1; 17:6). There are no perennial streams in Sinai, but the dry wadi beds can become a torrent when there has been a rain in the mountains. Surrounded entirely by desert, fed by no river, the Red Sea about Sinai has a temperature above 70 degrees Fahrenheit even in January.

While the claims of 7,370-foot Jebel Musa as the site of the giving of the law are solely traditional, dating back to the pilgrimage of Silvia in A.D. 388, this southern location would seem to fit the requirements of Elijah's forty-day journey from Beersheba (1 Kings 19:3-8). Tradition has identified Marah (Num. 33:8; Exod. 15:22-23) with Ain Hawrah; Elim (Exod. 15:27; Num. 33:9) with Wadi Gharandel; and Rephidim (Exod. 17:1) with the Feiran Oasis, one of the largest oases in Sinai. The Er-Raha plain has been thought a possible place for the Israelite camp during their stay at Sinai, and Edward Robinson considered Ras Safsafa at its end to be Mount Sinai. But more widely accepted is Jebel Musa, a mountain block about two miles long, one mile wide, and rising to one predominant summit. At its base Justinian built St. Catherine's monastery in the sixth century and it is still a place of pilgrimage.

Kadesh, whence the spies were sent out, where Miriam died, and where Israel must have spent a long time, is only eleven days march from Sinai (Deut. 1:2). It has been conjecturally identified with an oasis area about fifty miles southwest of Beersheba where there are four prominent springs: Ein Qadeis, Ein Qoseimah, Ein Muweilah, and Ein Qudeirat. The last of these flows forty cubic meters an hour and is the richest spring in northern Sinai.

Israel's long stay in the wilderness was a punishment for her lack of faith. While there are areas in which the tamarisk tree grows in limited quantities, and though the insect that infests it secretes a white sugarlike substance that some have identified with manna, there is not enough to support any group of people. This theory has to assume that living on manna is legendary. Some have noted that quail migrate across the peninsula at certain seasons and could have been captured by the Israelites. But these efforts should not diminish the marvel of the wilderness experience. In an area of such meager water and food resources, a body of people would have to be miraculously sustained to survive.

PALESTINE

Palestine takes its name from the Philistines, who were late invaders on its scene and who occupied only a portion of its area. The early Egyptians called it "the land of the sand dwellers," but another early name is Canaan (Gen. 11:31). This name is first attested in the tablets from Alalakh. It may be connected with "trade" or "commerce," since the root word indicates a trader or merchant (Job 41:6; Prov. 31:24; Zech. 14:21). Another theory is that Canaan meant "land of the purple." The Greeks then called it Phoenicia from the Greek word meaning "purple," hence Canaanite and Phoenician mean the same thing. Reference is, of course, to the purple dye that was produced along the Phoenician coast.

The Palestinian landscape makes the main lines of communication to run north and south, either along the sea coast, along the backbone mountain ridge, through the Jordan valley, or through Transjordan. The backbone mountain ridge is broken at the Jezreel valley. Armies could pass through the coastal plain without bothering the mountain; consequently, the mountains and the Jordan valley developed civilizations influenced by, yet isolated from, Egypt and Mesopotamia.

Covering about ten thousand square miles, small when

compared with the United States, Palestine lies between 31 and 35.15 degrees north latitude and is about the size of the state of Vermont. From Dan to Eilat is 250 miles; from Dan to Beersheba only 150; from Akko to the Sea of Galilee is twenty-eight miles; and from Gaza to the Dead Sea is forty-five miles. Samaria and Jerusalem were only thirty-five airline miles apart. None of the world's greatest cities lie within Palestine's borders. Jerusalem lies at 31.45 degrees north latitude, roughly comparable to that of Savannah, Georgia, and Jackson, Mississippi. Palestine's climate, though varied, is in general to be compared with that of southern California.

Despite its small size, the land is divided into distinct areas so that one can hardly go ten miles without being in a new landscape. Beginning at the sea, one has ascended to 2,500 feet when he reaches Jerusalem twenty-five miles away. At Jericho he has descended to 1,200 feet below sea level though he is only seventeen miles from Jerusalem, and at Amman, twenty-five miles further, he has ascended to 3,000 feet above the sea; but in the whole journey he has covered only seventy-two airline miles. From Hebron to the mountains of Moab is only thirty-six miles airline.

The Jordan with its deep gorge tended to divide the countries on either bank. In fact, Palestine's broken landscape made it a land of separate tribes: Canaanites, Perizzites, Ammonites, Kenizzites, Hittites, etc. The Tell el-Amarna letters reflect an area divided into innumerable city states. In such a broken land a revolution can occur without affecting those only a few miles away. Laish was only fifty-five miles from Sidon and only forty miles from Damascus, yet it was isolated from them (Judg. 18:7). Palestine has five distinct areas: the coastal plain, the central mountain range, the Rift Valley, the Transjordan region, and the Negeb to the south. The climate varies according to these regions.

Except for limited areas Palestine was too hilly for irrigation and was entirely dependent upon rainfall. The rain came from the west off the sea; the east wind brought dryness and oppressiveness. The area with rain sufficient for cultivation on the eastern Mediterranean coast is seldom

more than one hundred miles wide. Moses described it as "a land of hills and valleys, which drinks water by the rain from heaven, a land which the Lord your God cares for; the eyes of the Lord your God are always upon it, from the beginning of the year to the end of the year" (Deut. 11:11-12).

The modern consensus is that there has been no appreciable decrease in rainfall in the past 6,000 years. The lowering of the water table is due to overcultivation, to deforestation, and to the destruction of vegetation by man and his flocks.

Rain is the most uncertain factor in Palestine. The line between the desert and the tillable land moves back and forth depending on the year. Drought is frequent and Jeremiah describes one with graphic pathos (Jer. 14:2-6). Though Jerusalem has 24 to 26 inches of rain a year—the same annual rainfall as London—it comes in four months of the year. South of Hebron rain drops to 12 inches, Jericho has only 4 inches a year, the Dead Sea only 2 inches, and Elath less than half an inch. There is the hot dry summer from May to September when no rain falls. The cooler air of the night makes for morning mist in the hills that quickly disappears (Hos. 6:4; 13:3; Job 7:9). Wind blows off the sea in the afternoon and can be used to blow away the chaff in threshing (Ps. 1:4). There is heavy dew, which helps plants survive in the summer drought (cf. Judg. 6:36-40; Ps. 133:3).

There is a transitional period for six weeks both in the fall and in the spring when the wind must blow either from the east or the south (cf. Isa. 27:8; Jer. 4:11), bringing great discomfort and often damage to plants if it is spring.

Then the rain comes from November to March. At first it is spotty (cf. Amos 4:7-8). The "early rain" is from November to February, slacking off into the "latter rain"—showers—in March and April (cf. Deut. 11:14; Joel 2:23). There are about fifty rainy days a year, then "the winter is past, the rain is over and gone" (Song of Sol. 2:11). Thunder is common (cf. Ps. 29), and hail (Isa. 28:2; Hag. 2:17) may fall. Snow is not unusual in the mountains in the winter and may stay around four or five days. An 18-inch snowfall at Jerusalem in 1967 was particularly damaging to trees and

power lines. Water must be stored in the rainy season in cisterns unless a city happens to be near one of the continuously flowing springs (cf. Jer. 2:13). Plants bloom in February and March; then after March the summer burn sets in.

The rocks of Palestine are flint, limestone, chalk, basalt, and sandstone. Building stone and clay of different sorts for pottery-making are abundant. The current barrenness of the hills is due to erosion. Though naturally a forest region that had to be cleared (Josh. 17:18), the trees were cut, the land grazed over, and ruin resulted. Earthquakes are most frequent in the Jordan valley. One destroyed the Qumran community in 31 B.C., and that of 1927 at Jericho was severe.

Israel colonized only where wheat, olives, and grapes grew. Wheat and barley furnished bread, olives grew in abundance furnishing oil, and grapes furnished wine (Isa. 5:1-7; 2 Chron. 2:15). Grapes, figs, and carobs furnished sugar. Walnuts, pomegranates, dates, melons, leeks, and garlic were grown. The almond grew and blossomed white in the spring (Jer. 1:11-12). Again in the words of Moses:

A land of brooks of water, of fountains and springs, flowing forth in valleys and hills, a land of wheat and barley, of vines and fig trees and pomegranates, a land of olive trees and honey, a land in which you will eat bread without scarcity, in which you will lack nothing, a land whose stones are iron, and out of whose hills you can dig copper. And you shall eat and be full, and you shall bless the Lord your God for the good land he has given you.

Deuteronomy 8:7-10

In contrast with these crops, the orange groves, the prickly pear, the fields of tomatoes, and the eucalyptus trees along the roads today are not native to the land.

The coastal plain. Now rich, fertile, farming country, the coastal plain was never occupied by the Israelite people in OT times. One has called attention to the fact that the boundaries between the Arabs and the Israelis in 1948-1967 roughly corresponded to that between the Philistines, whose chariots

of iron could maneuver in the plain, and the Israelites, who held the hills. The sand dunes along the sea often made the plain unsuitable for passage, clogged the rivers, and made swamps. The "way of the sea" (Isa. 9:1 [in Hebrew 8:20]), which crossed into the plain at Megiddo, hugged the hills to avoid these problems. Later the Romans bridged the streams and the road could go nearer the coast. The coastal plain, warmed by the sea, has frost only once in about twenty years.

North of Mount Carmel is the Zebulun valley, through which the Qishon empties into the sea. Continuing to the north is the Acco valley, which terminates at Rosh Ha-Niqra (the Ladder of Tyre) where the valley is two and three-fifths miles wide. Rosh Ha-Niqra is the division point between Lebanon and Israel. Twelve miles long and five wide, this plain has over 28 inches of rain a year and has abundant springs. Its soil is the deep red soil that makes for excellent cultivation. It was the area claimed by the tribe of Asher, but the plain was marshy and the settlements were back along the mountain. Acco was not taken by the Israelites at the conquest (Judg. 1:31). Acco was the port of this region, but now the port has shifted across the bay and Haifa, the third largest city of Israel, thrives on its commerce. Haifa is not a biblical city.

Carmel juts out into the sea, leaving a pass only 200 yards wide along the coast which was easily defended. The steep slopes of Carmel make an effective barrier, but the view from the summit is breathtaking. Here was the scene of Elijah's conflict with the prophets of Baal (1 Kings 18:20ff.). Caves in the mountain were occupied by men back to the Stone Age. Just below Carmel, the valley opens into a narrow plain twenty miles long and up to a mile and a half wide. On this shore was Dor, one of the ports of the OT period mentioned in the adventures of Wen Amon. The plain has deep, red soil.

The Sharon plain begins at Mount Carmel and extends thirty-four miles to the Yarkon River. In the north the plain is about two miles wide, but it widens to twelve miles at Joppa; further south the coastal plain widens to thirty miles in the Philistine area. It has rolling hills that rise up to three hundred feet. Known in poetic appeals to its fertility in the OT, the plain grew the flower called the rose of Sharon, which is thought to

be a narcissus variety. Parts of the plain were once forested. The Sharon has 20 to 24 inches of rainfall a year and practically no frost. Perennial streams flowed through it, though today their water is otherwise utilized. The Sharon is the only part of the coastal plain the Israelites effectively possessed. The OT refers to it six times.

The Judean coast extending from the Yarkon River to the Nahal Lachish has sand dunes stretching inland five miles in the south, but further inland there is red sand and then the heavy red soil. In the north the Ras el 'Ain spring furnishes abundant water, giving life to the Yarkon River, which empties into the sea north of Tel Aviv. The twenty-mile long Yarkon is a perennial stream. The ancient town of Joppa, older than the Israelite conquest, lay in this area of the coastal plain.

The Philistine plain extends for about forty-seven miles down to the River of Egypt (the Wadi-el-'Arish), which is the natural boundary between Palestine and Sinai. This Wadi is 210 miles south of the mouth of the Litany and 117 miles below Rosh Ha-Niqra. The rolling hills of Philistia extend to an elevation of 250 feet. From the sand dunes to the foothills is a strip five to ten miles wide.

Into this area came the major Philistine migration after the "Sea Peoples" had been blocked by Ramses III in Egypt about 1170 B.C. They established city states, with Gaza, Ashkelon, Ashdod, Ekron, and Gath the chief centers. The "way of the sea" traversed this region, and these cities dominated this road, one of the oldest in the world. On it the armies of Egypt and of Mesopotamia passed and repassed. Philistia was open to diseases from Egypt (Deut. 7:15). The prophets speak of Philistia with pity as a prospective victim of the invasion forces that also brought Israel down—in fact, the whole area is open to invasion (cf. 2 Kings 19:9). It was good for growing grain; its streams carry water only after the winter rains, but rain averages 14 to 20 inches and there are also wells. Around Gaza there are abundant springs, making for beautiful orchards. Gaza lies three miles inland but it was the terminus for trade routes from South Arabia. Of the Philistine cities, only Ashkelon is on the sea.

Unlike Greece, where the people by nature are destined to travel the sea, Palestine is on a lee shore with prevailing winds from the southwest. There are no good anchorages south of Mount Carmel, and the sea current is northward parallel to the coast. These factors helped determine that its people are not seafarers. A symbol of raging against the Lord (Isa. 17:12, 13), the sea is a barrier (Num. 34:6), and Jonah is the only OT character who is said to have taken a journey on it. Invaders did not come from the sea until after they had already captured the land. None of the Mediterranean islands are visible from Israel, but the OT does mention Cyprus, Rhodes, Crete, and a few others. Josephus said of the Jews, "Well, ours is not a maritime country, neither commerce nor intercourse which it promotes with the outside world has any attraction for us. We devote ourselves to the cultivation of the productive country with which we are blessed" (*Against Apion* 1. 12).

The mountains. The mountain area of Palestine may be considered in the regions of Galilee, Samaria, and Judea as one proceeds from north to south. These regions are the central focal point of biblical interest.

Galilee (meaning "circle") is about fifty-five miles from north to south and twenty-five to thirty miles east to west. It was in some periods surrounded by heathen (cf. Isa. 9:1 [8:23, MT]). The Jezreel valley (called Esdraelon by the Greeks) is drained in the west by the Kishon River, which overflowed and mired down Sisera's chariots (Judg. 5:21). It flows through a narrow pass, crosses the plain of Acco, and empties into the Mediterranean. A swamp through which the "way of the sea" crossed on a basalt ridge, today the valley of Jezreel, with the swamps drained, is among the best farm land of the country. In this valley Megiddo guarded the pass through the Carmel range. Ahab's palace was at Jezreel, and it was here that the tragedy of Naboth took place (1 Kings 21:1; cf. 2 Kings 9:30; 10:11). The largest valley in Israel, Jezreel is bordered on the south by the Carmel, the Samaria, and the Gilboa mountains. The plain of Jezreel was the scene of such major OT events as Gideon's exploits (Judg. 6:33; 7:1) and Saul's defeat by the

Philistines (1 Sam. 28:3ff.). In each case Israel was on the slopes of Mount Gilboa to the south, and Midian and the Philistines, respectively, to the north on the slopes of Moreh. The valley divides around the Hill of Moreh, and in the northern wing of the valley Mount Tabor rises in isolation to 1,500 feet above the valley, making it a distinctive part of the landscape. It was here that Barak gathered his forces (Judg. 4:6). Reaching a watershed elevation of only about 230 feet at Jenin, the Jezreel valley slopes off to Bethshan at 200 feet below sea level and then on to the Jordan valley, making one of the natural east-west thoroughfares of the country.

Upper Galilee, surrounded by hills that extend up to four thousand feet, belonged to Naphtali. Though well-wooded and fertile, this area was off the center of the OT story. Lower Galilee, made up of valleys and hills which range up to one thousand eight hundred feet, was the possession of Zebulun and Asher. The valleys are oriented in an east-west direction, and passage parallel to the ridges is relatively easy. Israel at first experienced difficulty in taking the area from the Canaanites, leaving the northernmost tribes cut off from the rest of the tribes (Judg. 1:27); hence there were battles here in the days of Deborah (Judg. 4-5), again after the Philistine victory at Aphek (1 Sam. 4:1ff.), and later at the time of Saul (1 Sam. 29:1; 31:1ff.).

Mount Carmel extends from the sea in a southeasterly direction for thirteen miles to the Samaria mountains. Rising sharply to 2,000 feet, it made an effective barrier, and its four passes are of great strategic importance. They are at Yokneam, Megiddo, Taanak, and Jenin (Engannim; cf. 2 Kings 9:27, "ascent of Gur"). Thutmoses III reported, "The capture of Megiddo is as the capture of a thousand towns." Solomon fortified it (1 Kings 9:15), and Josiah died there in a vain attempt to block Pharaoh Necho (2 Kings 23:29). The pass at Jenin opens into the Dothan valley and then leads into the heartland of Samaria.

The Joseph tribes—Ephraim and Manasseh—had the mountainous strip for about forty-five miles south from the Jezreel valley. It was a region more accessible from the coastal plain than was the territory of Judah and hence more

often invaded. Its mountains have more abundant vegetation than Judah. The cities of Manasseh were Shechem, Tirzah, Samaria, and Dothan.

Tirzah, seven miles east of Shechem, served as the capital of Israel from Jeroboam I to Omri. However, one of the natural east-west crossings of the country ascends the mountains from the Damiya bridge area (near biblical Adam) up the Wadi Fari'a past Tirzah, passes between Mount Ebal and Mount Gerizim and then descends to the sea by a gentle slope. Hence Tirzah was vulnerable to Israel's enemy, Aram.

The most famous of all the mountains of Samaria are Mount Gerizim (2,840 ft.) and Mount Ebal (3,080 ft.), between which lay Shechem, in the narrow pass that is oriented east and west (Deut. 27:12-13). Abraham first came to Shechem when he entered the country (Gen. 12:6); later Joshua brought Israel there for the reading of the law (Josh. 8:30-35).

Ephraim's mountains are about twenty miles wide and reach from Geba almost to Shechem. Its cities were Bethel and Shiloh. Bethel is only ten miles north of Jerusalem. Ephraim had the heart of the country, and its name could designate the entire northern kingdom (Isa. 11:13; Hos. 6:4). The mountain ridge has been compared with the skeleton of a fish with a central ridge from which other ridges reach out from northeast to southeast. Passage is possible along the watershed on the backbone ridge, but a few miles on either side one would be going continuously uphill and downhill over high ridges and down into deep valleys.

In Benjamite territory between Bethel on the north and Jerusalem on the south were some of the most important cities like Gibeah, Michmash, Mizpah, Anathoth, and Ramah. The area is approachable from the Jordan valley through a wadi and also from the sea through the valley of Ajalon. Here from the west the ascent of Beth-horon gave easy access to the highlands. There was no natural boundary between Judah and Benjamin; hence, the limits were not exactly defined. However there was a shift in agriculture from olive culture to vine culture. From Bethel to Beersheba is only fifty-five miles.

The territory of Judah was only twenty to thirty miles

wide. Its eastern part is on the lee of the mountains, receives little rain, is treeless, and is made up of gorges and canyons. Tending to be wilderness, it is called Jeshimon (Num. 21:20, KJV; 1 Sam. 23:24) or the wilderness of Judah (Josh. 15:61). It was suitable as a refuge of fugitives but also offered defense from invasion from this direction. The desert extends almost to the watershed road on the mountains.

Hebron, the highest city in Judah at 3,300 feet elevation, controlled the road from the Shephelah (see below) to Engedi on the Dead Sea. Here at Hebron, Abraham received promises from God, and here he and Sarah were buried. David reigned from Hebron before he was accepted by Israel. David's ancestral home, Bethlehem, is fifteen miles farther north, but it only came to prominence through him and then later through the birth of Jesus.

Jerusalem came under Israelite domination only after David captured it from the Jebusites, but he made it the capital of his kingdom—doubtless a fortunate political choice since it lay on the border between the north and the south. Surrounded by higher mountains and built on a promontory, it was enclosed on the east by the Kidron valley and on the south by the valley of the sons of Hinnom. Its natural water supply was on the west slope of the Kidron. Enrogel was near the junction of the two valleys. Jerusalem has frost twenty to sixty nights a year; has snow in the winter occasionally measuring 18 inches; and has an average August temperature of 75.2 degrees.

The Shephelah. The west slope of the mountains of Judah is divided into two terraces, one below the other. The term Shephelah (lowland) designates these hills south of the Aijalon valley which form an intermediate zone separating the mountains from the Philistine plain. Furthermore, a north-south valley intervenes between the hills of the Shephelah and the mountain itself, making an effective moat. Since it was disputed territory between Israel and the Philistines, many of their encounters took place on the eastern border of the Shephelah. David eventually broke the Philistine power in the area.

From north to south through this region there are significant valleys. The valley of Aijalon is the site of Joshua's battle with the kings. It offers the best approach from the sea to Jerusalem. The valley of Sorek, in which are Zorah, Eshtaol, and Beth-shemesh, is the scene of the Samson stories and of those of the captivity of the ark. The valley of Elah is the scene of David's fight with Goliath.

A series of fortresses guarded this natural approach to Jerusalem: Debir, Lachish, Libnah, Azekah, Makkedah, Beth-shemesh, and Gezer. Joshua carried a campaign through the valley of Aijalon (Josh. 10:10-12) after he had conquered the first cities in the central mountain area. The Philistines invaded through the valley to Michmash in Saul's day. Gezer, one of its most prominent sites, was not taken at the time of Joshua (Judg. 1:29), but it was later taken by Pharaoh and given to Solomon's wife as a dowry (1 Kings 9:16-17).

The Rift Valley. The single most distinctive feature of the Palestinian landscape is the Rift Valley (often called the Ghor), through which the Jordan river flows. Resulting from a geological fault, the rift begins in southern Turkey, runs between the Lebanon and Anti-Lebanon mountains, crosses the length of Palestine, and continues into central Africa in the general region of Nairobi, Kenya. In the Lebanon area where the valley is well above sea level, it is called the *Biqā'*. With an abundance of water, it is an excellent farming region for grains and fruits. Within it lie such sites as Hamath and Baalbek. At the south of Lebanon the rift is blocked by a basalt dam and the Litany River, which drains it, turns abruptly westward to empty into the sea. The basalt also formed an effective barrier to north-south travel in antiquity and today is the boundary between Israel and Lebanon.

Guarded on the north in ancient times by Abel beth-maacah and by Dan, the rift has flowing through it the three streams fed by the melting snows of Mt. Hermon, making up the sources of the Jordan River. Beginning on the east side there is the Banias River surfacing in abundant springs from a cave. For the ancients, the springs made Banias (Caesarea Philippi) a spot sacred to the god Pan.

After flowing for about two miles, the water thunders over a fall into a deep canyon as it continues its way toward Galilee. A second stream, the Leddan, breaks out in springs at Tell Dan, flows four miles, and then joins the Banias. A third is the Hasbani, which flows off from the west side of Mt. Hermon and then after twenty-four miles joins the other two just south of their confluence. A fourth river, the Bareighit, not rising from Mt. Hermon, drains the west side of the valley and empties into the Hasbani just before that stream joins the Jordan.

In ancient times these streams, after flowing seven miles, formed the swamps of Lake Huleh. The lake was 230 feet above sea level and about two by three miles in size with a depth of six to sixteen feet. The Huleh basin is about nine by three miles, roughly triangular with the base on the north. Its swamps grew the papyrus plants, valuable in antiquity for making writing material. The state of Israel has now drained the Huleh valley and turned it into exceedingly prosperous fishponds and farms. However, it is rumored that Israel, confronted with the progressive salinization of Lake Galilee, is making plans to reconstitute the lake as a filtering place for water of the Jordan system.

Leaving Lake Huleh, the river flows two miles to what is now known as the Daughters of Jacob bridge—the only practical crossing of the river above Galilee. An unidentified tell at the river's edge remains from some ancient guard post on the trunk way from Damascus to Egypt, over which traffic moved from the dawn of history. Farther back in the valley stood Hazor, one of the most impressive sites in all of Palestine, a place conquered by Joshua (Josh. 11:10ff.) to give Israel control of the northern area. Ten miles below Lake Huleh, after dropping rapidly through a basalt gorge out into a delta of about one mile width, the Jordan enters the Sea of Galilee.

Lake Galilee, also called Chinnereth and Tiberias, is thirteen miles long and eight miles wide in a pear shape. It is 690 feet below sea level and about 160 feet deep. There are many underground streams flowing into it. The area of Tiberias had hot mineral springs. While the lake abounds

with fish, some of the springs are saline, making the water unsuited for continuous irrigation. The state of Israel has sealed off some of these by channeling them into aqueducts running along the side of the lake. The water of the lake, varying from green to blue, at times is mirror calm, but at other times pitches up in white caps. The lake is shut in on all sides by hills which rise above sea level. The plain of Gennesaret lies on its northwest shore. Today Galilee, though a tourist haven, has a rustic atmosphere and is bounded only by Tiberias and by the kibbutz farming communities. But in NT times nine towns lined its shores—places like Capernaum, Chorazin, Bethsaida (Julias), Magdala, Tiberias, Dalmanutha, and Greek cities of Gerasa and Gadara.

The airline distance from Lake Galilee to the Dead Sea is sixty-five miles, but the Jordan twists to three times that length in its descent. The average fall is nine feet to the mile. About twenty-five miles south of Galilee the rift narrows and then varies from three to fourteen miles in width. South of its narrow point the valley becomes much drier and is divided into three levels. There is the Ghor, then the badlands that are deeply eroded and unsuited for any use, and finally the Zor (or thicket), which is also called "the pride of the Jordan." This last area is about 150 feet below the Ghor level and from 200 yards to one mile wide. The area floods at times (Josh. 3:15). The lions once found there have long since disappeared.

These regions make the Rift Valley a natural boundary between peoples. The Ghor contains many antiquity sites. Nelson Glueck reported seventy for which no ancient name is known. The river itself varies from 90 to 100 feet in average width and from three to ten feet in average depth. There are at least six fords where the river can be waded. The water is a muddy brown.

Five miles after the Jordan leaves Galilee, it is joined on the east by the Yarmuk, which drains the Golan Heights and forms the modern boundary between Jordan and Syria. Unmentioned in the Bible, the Yarmuk has cut a deep canyon and flows an equal quantity of water with the Jordan

to the point at which they join. Fifteen miles north of the Dead Sea, the Jabbok (Nahr-es-Zerqa), which rises near Amman and flows for fifty miles with a drop of fifty feet to the mile, joins the Jordan. Its valley has many tells not mentioned in the Bible. It formed the boundary of Amman, and it was the site of Jacob's wrestling with the angel (Gen.32:22-29). From its western side the River Jordan is fed by the Wadi Fari'a, which flows down from springs in the area of ancient Tirzah. This wadi's valley furnishes one of the east-west passages through the country. It joins the Jordan in the area of Damiya (Adam).

The exact site of the crossing of the Jordan by the Israelites at the conquest is unknown. Adam, at which the waters of the Jordan were cut off, is at Damiya.

Near Jericho the Jordan valley widens out to about fourteen miles. Jericho is an oasis formed by the abundant waters of Elisha's fountain, which breaks out at the foot of the tell of the ancient city. There are also other springs in the area such as Ain Duk, and from at least Roman times water has been brought down from the mountain in aqueducts in the Wadi Qelt. These waters are all absorbed in Jericho's gardens rather than actually feeding the Jordan. The water, together with Jericho's semitropical climate, makes the area especially delightful for growing palm trees, melons, vegetables, and citrus fruits.

The Dead Sea (called the Salt Sea in the OT—Gen. 14:3; Num. 34:3, 12; Deut. 3:17; Josh. 3:16; 12:3; 15:2, 5; 18:19—and not mentioned in the NT) is 104 miles south of Banias, where the Jordan begins. It is fifty-three miles long and ten miles wide. The surface of the sea is 1,242 feet below sea level and the water at the northeast end is 1,320 feet deep, making this rift the lowest spot on earth. The sea has no outlet. The water is a bluish green and contains 30 percent solids—five times that of regular sea water. The sea is a great deposit of chlorides of magnesium, sodium, calcium, and potassium, and there are also magnesium bromides. The crystallized minerals along the shore form lovely patterns on rocks and sticks. The sea has been a source of salt from an early time; the Bible speaks of "Salt

City" (Josh. 15:62). The countries of Jordan and Israel are now exploiting this mineral treasure. While there is no life in the sea, animal and vegetable life are to be found on its shores. The hills rise to two thousand five hundred feet above the water on the west bank and to three thousand on the east. Rainfall in this area averages 2 inches a year.

While passage is not possible along the east shore of the sea, there are hot springs at Cholorae, to which Herod the Great came for bathing during his illness. The rivers Arnon (Mojib) and Zered (Zerqa) enter the sea from the east. Part way down the sea the Lisan peninsula extends nine miles into the sea, reaching to within two miles of the west shore. Here the water has a depth of fifteen feet, but in ancient times one could wade across. The Lisan itself is watered by five streams and becomes a broad, fertile plain on the east. Just to the east, Paul Lapp excavated Bab edh-Dhra', which contains an Early Bronze Age cemetery.

There are several sites on the west shore. Ein Feshka, near the north end, had a settlement in the seventh and eighth centuries B.C. The Qumran community flourished about two miles north of this spring in the first century B.C. Farther down the west shore, the oasis of Engedi (1 Sam. 23:29; Song of Sol. 1:14) breaks the barren monotony. Then ten miles farther south, back from the shore on an isolated peak, is the fortress of Masada. Near the southern end of the sea there is a salt mountain 650 feet high and more than five miles in length. This formation is popularly called "Lot's wife" in memory of the biblical story (cf. Gen. 19:26). At the south end of the sea there is a salt plain extending eight miles, upon which the sea encroaches in times of flooding.

From the Dead Sea southward the rift is known as the Arabah. After thirty miles the floor rises to the sea level, and then at Jebel er-Rishe it reaches 630 feet above the sea. From that point on, the rift is at times no more than six miles wide. The Arabah finally terminates at Aqaba-Eilat, 100 miles south of the Dead Sea. Ezion Geber was the name of the port in Solomon's time. It is on the gulf which is one of the arms of the Red Sea.

Transjordan. The area east of the Jordan was traversed from Damascus to Aqaba by the "King's Highway" (Num. 21:22), which was used by the four invading kings in Abraham's day (Gen. 14). Later it was used by the Israelites at the time of their wilderness journey (Num. 21:27-30) and a list of towns along it is given. The highway descended from the plateau through the Wadi 'IYātim to Aqaba, whence in antiquity one could continue to Egypt.

This plateau area east of Jordan, homeland of the tribes of Reuben, Gad, and the half-tribe of Manasseh, is cut into regions by deep canyons made by the rivers that drain its highlands into the Jordan or the Dead Sea. However, more influential than the canyons were the boundaries determining how men made their living. Wheat was grown in Bashan, vines in Gilead, and sheep in Ammon and Moab. Edom relied on trade and on her copper mines.

The area averages two thousand feet in elevation and slopes off in the east from the tillable land to the desert. On the north the eastern region is the Hauron; the central, the Bashan; and the western part is the Golan Heights overlooking the Sea of Galilee. This district, beginning at the foot of Hermon, is thirty-five miles from north to south on the west and fifty miles on the east. Because of its rising elevation it receives rain to push the desert back eighty miles east of the Rift Valley—125 miles from the Mediterranean. Annual rainfall varies from 12 to 24 inches and is usually adequate for farming, but years of plenty are sometimes followed by years of drought. Aphek (Fiq) and Edrei (Der'a) are in this region. The Bashan was open to Syrian attack on the north, but it is bounded on the south by the Yarmuk River. The Yarmuk, while named in Pliny's *Natural History*, is not mentioned in the Bible; but it flows as much water as the Jordan at their confluence. The area's basalt rocks give evidence of earlier volcanic action. Its rich soil was once wooded and its cattle and its oak trees draw attention in the Bible (Amos 4:1; Isa. 2:13; Ps. 22:12). The description is particularly suitable for upper Golan. Though rainfall is limited, it grows rich crops of grain in the southern area.

Gilead is the area between the Yarmuk and the Jabbok

ivers, a distance of thirty-five miles, and a width of settlement of thirty to forty miles from the river Jordan. It is made up of high ridges which average two thousand feet above the sea, with some of its peaks reaching up to three thousand feet, in contrast to the Jordan, which is 800 feet below sea level in this area. Gilead, Succoth, Penuel, Jabesh-gilead and Ramoth-gilead were its cities. Rainfall in this region averages 28 to 32 inches. The area was forested (Jer. 22:6-7) and balm from its trees was famous (Jer. 8:22; 46:11). The area was always in close contact with western Palestine; in the conquest it was assigned to the tribes of Gad and Manasseh.

South of the Jabbok the country becomes a treeless plain, which was the area of the kingdom of Sihon, the Ammonites, and Edom. The Moab plateau is twenty to thirty miles wide and eighty miles north and south. Its highest peak is 4,056 feet above sea level, while the Dead Sea, five miles away, is 1,300 feet below sea level. Deep canyons like that of the Wadi Mojib (Nahal Arnon), whose canyon is 1,700 feet deep and two miles broad at the top, cut through the plateau. The area receives more rain than the Judean hills, and in the Book of Ruth Bethlehemites migrated there in times of famine. The area is particularly suitable for sheep (2 Kings 3:4-5).

In this area lay the cities of Kir-hareseth (Kerak, a chief military stronghold), Aroer, Dhibon, Madeba, and Heshbon, and nearby is the traditional Mount Nebo (cf. Deut. 32:49), 3,631 feet in elevation, overlooking the lower Jordan valley and the north end of the Dead Sea. There is no clear boundary between the areas of Moab and Ammon. Tophel, Dibon, Heshbon, and Madeba have almost the names they had in Bible times.

Within the upper basin of the Jabbok was Rabbath Ammon, now the city of Amman with over two hundred thousand population. The Jabbok, rising sixty miles east of the Jordan, descends to below sea level seven miles from the Jordan, while the plateau to the north and south is 2,000 feet above the sea. This river was the site of Jacob's struggles with the angel.

The area of Edom extends from the Wadi Hesi (Brook

Zered, Num. 21:12), 100 miles to the Gulf of Aqaba. This area is about twenty miles wide and slopes off into the desert. In the south, peaks slightly exceed five thousand feet. Reddish granite (Edom, that is, "red," may be connected with the color of the stones of the area) alternates with a multitude of other hues. In the Bible the area is also called Mount Seir. In the central area lay Petra, whose inhabitants cut its stone cliffs into buildings. This Edomite stronghold is likely Sela (Obad. 3). While the south is devoid of rainfall, in the north the western slopes receive 16 to 20 inches of precipitation, often in the form of snow in the winter, making farming possible. The area had copper workings at Feinon (Punon, cf. Num. 33:42-43); it was once wooded, but the Turks deforested it to get fuel for the railroad in World War I. Its cities included Teman (Tawilan) in the south and Bozrah (Buseira) in the north.

Through this region passed the King's Highway (Num. 20:17; 21:22). The people made their living by some farming but chiefly by mining copper, trade, and taxes on the caravans that used their road.

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