

The Discovery of the Sin Cities of Sodom and Gomorrah, Part 1 of 2

By Dr. Bryant G. Wood

The names Sodom and Gomorrah are by-words in our modern society. An especially wicked place is described as a “Sodom and Gomorrah.” Pastors are sometimes said to be preaching “fire and brimstone.” And we have the legal term *sodomy* for unnatural sex acts. These allusions, of course, stem from the Biblical account of events that occurred in the days of Abraham in Genesis 19.

But did these places ever exist and will they ever be found? Most scholars think not. In his *Anchor Bible Dictionary* article on Sodom and Gomorrah, M.J. Mulder concluded that they were,

Two legendary cities from prehistoric Israel in the neighborhood of the Dead Sea...it is highly uncertain, if not improbable, that the vanished cities of the Pentapolis will ever be recovered (1992: 99, 102).

In their textbook on the history of Israel and Judah, Miller and Hayes state:

The Sodom and Gomorrah story reflects yet another motif pattern known from extrabiblical literature, that of divine beings who visit a city to test the hospitality of its people and eventually destroy the inhospitable city. One can compare in this regard the Greek myth of Baucis and Philemon. The presence of such traditional motifs in the biblical narratives raises the possibility that at least some of these narratives are purely products of the storyteller’s art, which of course raises serious questions about their usefulness for historical reconstruction (1986:60).

Looking for the Sites

Sodom and Gomorrah were two of five cities referred to in Scripture as the Cities of the Plain. From references to the “plain of the Jordan” (Gn 13:10), “the Valley of Siddim (the Salt Sea)” (Gn 14:3) and Abraham looking *down* to see the Cities of the Plain from the area of Hebron (Gn 19:28), it is clear that the cities were located in the vicinity of the Dead Sea. Since the mountains come close to the shore on both the east and west, the cities must have been located either north or south of the Dead Sea. Various commentators over the centuries have suggested locations both north and south (Mulder 1992: 101–102). The reference to “bitumen pits” in Genesis 14:10, however, tips the scale in favor of a southern location (Howard 1984). Bitumen (a natural petroleum product similar to asphalt) was commonly found in the shallow southern basin of the Dead Sea in antiquity (Bilkadi 1984; 1994; Clapp 1936a: 901–902; 1936b: 341–42).

One popular theory, repeated yet today, is that the Cities of the Plain were located in the plain south of the Dead Sea and later covered by the waters of the southern basin, never to be seen again. The level of the Dead Sea has receded substantially in recent years, causing the southern basin to dry up.ⁱ Extensive exploration and activity in the area has produced no evidence to indicate that there were ancient sites there (Rast 1987a: 193).

It wasn’t until 1973 that solid archaeological evidence for locating the Cities of the Plain was found. At that time an archaeological survey of the area southeast of the Dead Sea was conducted by Walter Rast and Thomas Schaub in conjunction with their work at Bab

edh-Dhra, an Early Bronze (ca. 3300–2000 BC) site on the east side of the Lisan peninsula.ⁱⁱ Rast and Schaub discovered four additional sites south of Bab edh-Dhra, which they suggested might be related to the Cities of the Plain of the Old Testament (Rast and Schaub 1974). Subsequent excavations at Numeira, 13 km (8 mi) south of Bab edh-Dhra, have verified its close affinity with Bab edh-Dhra. Follow-up work at the other three sites, Safi, Feifa and Khanazir, however, has not been as rewarding.

Explorations at Safi, Feifa and Khanazir

When Rast and Schaub visited Es-Safi in 1973 they discovered a large Early Bronze Age cemetery. To the east of the cemetery they observed wall remains and Early Bronze sherds indicative of a settlement site (1974: 911). Unfortunately, in the years following their survey, homes have been constructed on the site and “subsequent visits have been unable to confirm the presence of a [n Early Bronze Age] town site” (Schaub 1992: 895).

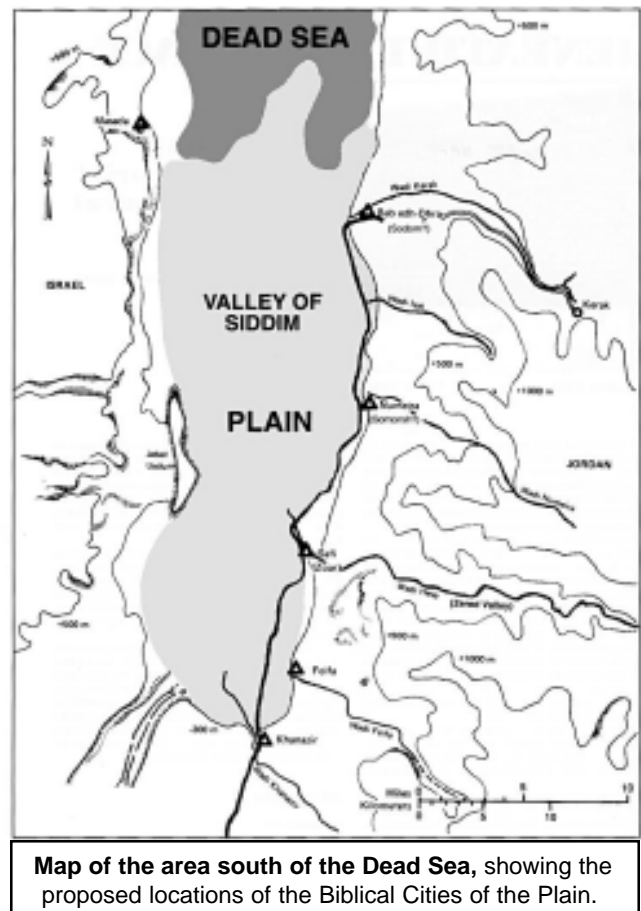
Less than a month of excavation was carried out at Feifa and Khanazir, 16 December 1989–13 January 1990. An enormous Early Bronze Age cemetery was found at Feifa by Rast and Schaub in 1973, as well as a fortified enclosure (1974: 11–12). Upon excavation, the enclosure turned out to be an Iron Age II (eighth century BC) fortress constructed over part of the Early Bronze Age cemetery (de Vries 1991: 262; MacDonald 1997: 65). At Khanazir, walls observed by Rast and Schaub in 1973 (1974: 12–14) were in reality rectangular structures marking Early Bronze IV shaft tombs (deVries 1991: 262; Rast 1992: 560; MacDonald 1997: 65; Schaub 1997b: 62).

Even though the locations of three of the Cities of the Plain remain elusive, evidence is strong that the two most important—Sodom and Gomorrah—have been found.

Identifying the Sites

Bab edh-Dhra and Numeira are the only known inhabited towns in the region of the Dead Sea between ca. 3000 and 900 BC. Moreover, Bab edh-Dhra is the largest site from the pre-Hellenistic period in the area (Rast 1987b: 45). The conclusion that these sites are associated with the Cities of the Plain is inescapable (Rast 1987a: 190–94; 1992: 561).

In determining which archaeological site should be identified with which Biblical place name, we begin with Zoar. Because Lot fled to Zoar to escape the catastrophe (Gn 19:21–23), the town was spared from God’s judgment. From later references to Zoar in the prophecies against Moab (Is 15:5; Jer 48:34), we know that the town continued to exist. It is further mentioned in various ancient references from the Hellenistic period to the Middle Ages (Schaub 1997b: 63; Astour 1992; Howard 1988b).ⁱⁱⁱ The most important source for locating the site is the Madaba map, a mosaic map on the floor of a church in Madaba,



Map of the area south of the Dead Sea, showing the proposed locations of the Biblical Cities of the Plain.

Jordan, depicting Palestine in the sixth century. Zoar is shown on the southeast shore of the Dead Sea, just south of the Zared River (Wadi Hesa) (Donner 1992: 42, No. 18). This places ancient Zoar in the vicinity of modern Safi, although its exact location is not known at present (Schaub 1997b: 63–64).

The Bible tells us that Lot and his daughters lived in a cave in the mountains near Zoar (Gn 19:30). At the edge of the mountains just to the east of Zoar, the Madaba Map depicts the sanctuary of St. Lot, a church built in memory of Lot. H. Donner and E.A. Knauf discovered the ruins of the church in 1983 (Donner 1992: 42), and it has since been excavated (Politis 1999). Built in front of a cave thought to be where Lot and his daughters lived, the church is located 7 km (4 mi) northeast of Safi on the north bank of the Wadi Hesa. The earliest evidence of occupation at the site is from the Early Bronze Age.

Since the other four cities are always mentioned in pairs—Sodom and Gomorrah, Admah and Zeboiim—it is logical to presume that Sodom would have been located near



Church of St. Lot, near Safi, Jordan. In the center is the main apse of the church and to the left is the entrance to the cave believed to be where Lot and his daughters lived after they fled the destruction of Sodom (Gn 19:30).

Gomorrah and Admah near Zeboiim. Thus Bab edh-Dhra and Numeira should be identified with one of these pairs, but which one?

Turning to the site to the north of Safi, Numeira, we can make a linguistic connection with one of the Cities of the Plain. Many times ancient names are preserved in modern Arabic place names. The consonants of the name Gomorrah are C (*ayin*) M R and the consonants of Numeira are N M R. The ancient and modern names match, except for the first letter. Initial laryngeals like the *ayin* in C^{MR} were commonly lost or transformed in the process of time, or when they came over into other languages or dialects. In this case, it is possible that nasalization took place, so the *ayin* in Hebrew C^{MR} became the N in Arabic NMR (Shea 1988: 17).

Jericho has been called the lowest city in the world, being at an elevation of 220 m (720 ft) below sea level. Bab edh-Dhra is at about the same elevation. The title of the world's lowest city, however, must now go to Numeira since it is situated at 280–290 m (920–950 ft) below sea level.

The site to the north of Numeira, Bab edh-Dhra, would then be Sodom. Since Bab edh-Dhra is the largest ancient ruin in the region it stands to reason that it should be identified as Sodom, the most famous of the Cities of the Plain. It was occupied throughout the Early Bronze Age for a period of over 1,000 years.

The Evidence

General

Geological studies have shown that the level of the Dead Sea was at a low point during the Early Bronze Age (Neev and Emery 1995: 62) and thus the shallow basin, or “plain” south of the Dead Sea would have been dry land and probably cultivated. ^{iv} The location of the Early Bronze Age sites along the eastern edge of the plain fits the Biblical description of the cities as being *of* the plain. “Cities of the Plain” is in the construct state in the Hebrew, which means that the word “cities” has a close association with the word “plain.” The cities were not *in* the plain, or



Bab edh-Dhra town site and cemeteries. Although the northern wall was lost due to erosion, it is estimated that the size of the fortified area was 9–10 acres. There was occupation to the east, south and west of the city walls as well. The main burial area throughout the more than 1,000-year history of the town was Cemetery A to the southwest.



Bab edh-Dhra—view east along the south wall. Note the proximity of the mountains of Moab in the background. The angels told Lot, “Flee to the mountains or you will be swept away!” (Gn 19:17).

on the plain. If that were the case, a different construction would have been used. Rather, the cities were “of” the plain—they had a close association, or connection, with the plain. They were doubtless dependent upon the plain for their livelihood.

Paleobotany

The first description of the Cities of the Plain in the Bible is in the account of Lot separating from Abraham in Genesis 13:10–13. There, the plain is described as being “well watered” as far as Zoar (Gn 13:10). The Hebrew words translated “well watered” are *kullah*, an intensive form of the verb meaning, “to be complete,” and *mašqeh*, from the verb meaning, “to give to drink” or “irrigate.” The meaning of *kullah mašqeh*, then, is to be completely and totally irrigated. Paleobotanical studies have shown that there was a rich diversity of crops grown at Bab edh-Dhra and Numeira. Most common were barley, wheat, grapes, figs, lentils and flax. Less common were chickpeas, peas, broad beans, dates and olives (McCreery 1980:52). Several of these crops could only have been grown with the use of irrigation:

There is little doubt that agriculture was an important component of the economic base of the EB cities in the region and that irrigation was a key element of the agricultural industry (McCreery 1981: 168; cf. p. 167, 1980: 52).

It appears that each of the five Cities of the Plain controlled the water from the principal streams that flowed into the plain from the east.

Fortifications

When the two angels came to Sodom to warn Lot of the impending doom, they found him sitting in the city gate (Gn 19:1). This indicates that Sodom was fortified. Bab edh-Dhra, which means “gate of the arm,” had imposing fortifications. The city wall, enclosing an area of 9–10 acres, was a massive 7 m (23 ft) wide and made of stones and mud bricks (Schaub 1993: 134). Evidence for settlement was found outside the walls as well. The total population at the time Bab edh-Dhra met its end was between 600 and 1,200 (Rast 1987b: 47; 1992: 560; Schaub 1993: 134). Within the walls were a sanctuary on a high spot at the southwest end of the city, domestic and industrial areas, and a gateway on the northeast side.

The gateway was comprised of two flanking towers with massive stone and timber foundations. They were ca. 4 m (13 ft) wide and 10 m (33 ft) long, with a 3–4 m (10–13 ft) passageway between. When Lot saw the angels, “he got up to meet them and bowed down



City gate at Bab edh-Dhra.
 Located on the northeast side of the site, this is the gate that was in use at the end of the life of the city. The angels met Lot in the city gate (Gn 19:1–3). The arrow shows the direction of entry.

with his face to the ground” (Gn 19:1). He then invited them to his home. Houses at Bab edh-Dhra were of the typical Early Bronze Age “broad room” style. They were rectangular, being about 5 m (16 ft) long and 2–3 m (7–10 ft) wide with an entrance in one of the long sides (Rast 1987b: 46).

At Numeira, a town smaller than Bab edh-Dhra, the city wall was found to be about 4 m (13 ft) wide. Inside were houses very much like those at Bab edh-Dhra. It appears that the residents of Numeira buried their dead in the enormous cemetery at Bab edh-Dhra since no cemetery was discovered at Numeira. Supporting this hypothesis is the fact that pottery from Numeira was found in burials at Bab edh-Dhra (Rast 1987b: 47).

Two Destructions

The Bible tells of not one, but two, traumatic events that occurred in the final days of Sodom and Gomorrah. Genesis 14 describes an attack against the Cities of the Plain by a coalition

of four Mesopotamian kings. The battle was joined in the Valley of Siddim, probably at the northern end of the plain. Following their rout of the army of the Cities of the Plain,

The four kings seized all the goods of Sodom and Gomorrah and all their food; then they went away. They also carried off Abram’s nephew Lot and his possessions, since he was living in Sodom (Gn 14:11).

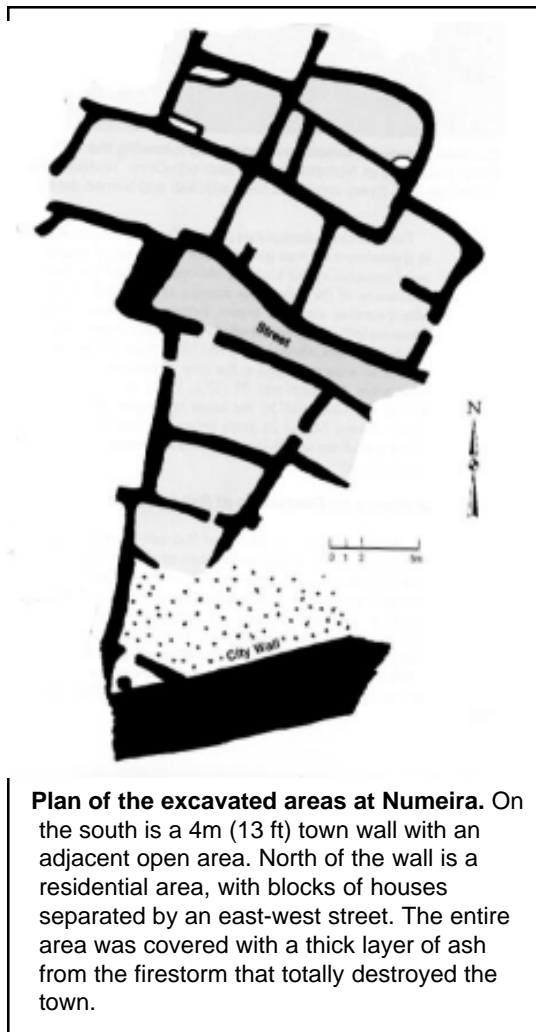
Then, in Genesis 19, we have the record of the final destruction when, because of their sin,

The Lord rained down burning sulfur on Sodom and Gomorrah—from the Lord out of the heavens. Thus He overthrew those cities and the entire plain, including all those living in the cities—and also the vegetation of the land. (Gn 19:24–25).

From the chronological data given in Genesis, it is possible to approximate the time span between the sacking of Sodom and Gomorrah by the kings of Mesopotamia and the final destruction of the cities. The account of the attack of the Mesopotamian coalition comes between the time when Abraham left Haran when he was 75 (12:4) and the conception of Ishmael when Abraham was 85 (16:3). Since Sodom and Gomorrah were destroyed at the time of the conception of Isaac when Abraham was 99 (17:1, 21:5), the sacking of Sodom and Gomorrah by the kings of Mesopotamia took place between 14 and 24 years before the final holocaust. There is evidence at both Bab edh-Dhra and Numeira for two destructions.^v



The author at the west gate of Bab edh-Dhra, view east. The main gate was located here throughout most of the history of the city, giving easy access to the agricultural fields in the plain below. About 25 years before the final destruction, however, Bab edh-Dhra suffered a destruction that caused the citizens to purposely block up the west gate and construct a new gate on the northeast. This can be linked to the attack of the coalition of Mesopotamian kings described in Genesis 14.



Plan of the excavated areas at Numeira. On the south is a 4m (13 ft) town wall with an adjacent open area. North of the wall is a residential area, with blocks of houses separated by an east-west street. The entire area was covered with a thick layer of ash from the firestorm that totally destroyed the town.

Evidence for Destruction at Bab edh-Dhra

Throughout most of the life of Bab edh-Dhra the main entrance to the city was located on the west side, giving access to the plain below. Within the last 100 years of occupation, the west wall and gate area underwent a major destruction (Schaub and Rast 1984: 46; Rast 1987b: 47; Schaub 1997a: 249). This resulted in the citizens intentionally blocking up the west gate and constructing a new gate in the northeast (Schaub and Rast 1984: 46; Schaub 1993: 134). The new gate was founded on a meter of burned destruction debris resulting from the calamity (Rast and Schaub 1980: 28; Rast 1981a: 20).

Shortly thereafter, at the close of the Early Bronze III period, the fortified city at Bab edh-Dhra met a final fiery end. Even though the site is badly eroded, enough evidence remained in several areas to show the severity of the disaster. The northeast gate was destroyed by fire as indicated by charcoal, broken and fallen bricks, and areas of ash (Rast 1981: 21). There was a massive pile-up of mud brick in the west end suggesting heavy destruction in this part of the city (Rast 1981: 31). At this time the city wall fell and the mud brick superstructure of the sanctuary collapsed, apparently after burning (Rast 1992: 560). The many

stone and boulder fields within the city came from walls that were disrupted and transported down slope (Donahue 1980: 51; 1985: 136).

Following the destruction, there was occupation at Bab edh-Dhra in the Early Bronze IV period, but almost exclusively outside the destroyed Early Bronze III fortified town. Following this brief period of extramural settlement, the site was permanently abandoned.

Evidence for Destruction at Numeira

At Numeira, a better-preserved site than Bab edh-Dhra, the evidence is even more dramatic. Unlike Bab edh-Dhra, the remnants of the town did not suffer erosional damage. Also in contrast to Bab edh-Dhra, Numeira was occupied for less than 100 years (Rast 1981: 42; Rast and Schaub 1980: 43).

On the east side of Numeira is a large tower 7.4 m (24 ft) wide and at least 10.0 m (33 ft) long (Coogan 1984: 80). It was built over an earlier domestic phase that suffered a heavy burning.

This earliest phase of occupation was destroyed by fire; the walls and rooms that collapsed over the ashy destruction debris consisted of considerable mud brick detritus, many large wooden beams, and carbonized grasses and reeds still tied by the ropes that had held them together as thatch. On the occupational surface of Room V (NE 10/2 Locus 5) was the skeleton of a mature male who had perished in the destruction of this earliest phase (Coogan 1984: 79).



Excavation area at Numeira as it appeared following the 1977 season. Occupied for less than a century, the remains were better preserved at Numeira than at Bab edh-Dhra. Textiles, string, rope, seeds, and even a cluster of grapes survived amazingly well. Every room was filled with ash and burned debris from the dreadful holocaust that overtook the city.

Similar evidence was found in Room 4 just inside the southern wall. Some 20–30 cm (8–12 in) below the final phase was an earlier phase with fragments of human bones (Rast and Schaub 1980: 44).

As with Bab edh-Dhra, Numeira was violently destroyed at the end of the Early Bronze III period. The type of pottery lying on the floors of the houses confirms that it met its end at the same time as Bab edh-Dhra (Rast and Schaub 1980: 45). A thick layer of burnt debris was found in almost every area excavated (Rast 1981: 41; 1987b: 47). Michael Coogan, one of the excavators of Numeira, described what the archaeologists encountered:

Under the topsoil (desert pavement) and a naturally deposited windblown sandy soil, the entire area was covered by the ashy debris of the final destruction of the town, up to 0.40 m in depth. This

ash contained fragments of wooden beams that had supported the roofs of the dwellings and lay immediately over the latest occupational layer within each room, sealing the material beneath it. Not infrequently there was mud brick detritus over the ash, which had resulted from the collapse of the mud brick superstructures after the final conflagration (1984: 76).

On the inner side of the tower more startling evidence was found for the tragedy that overcame Numeira.

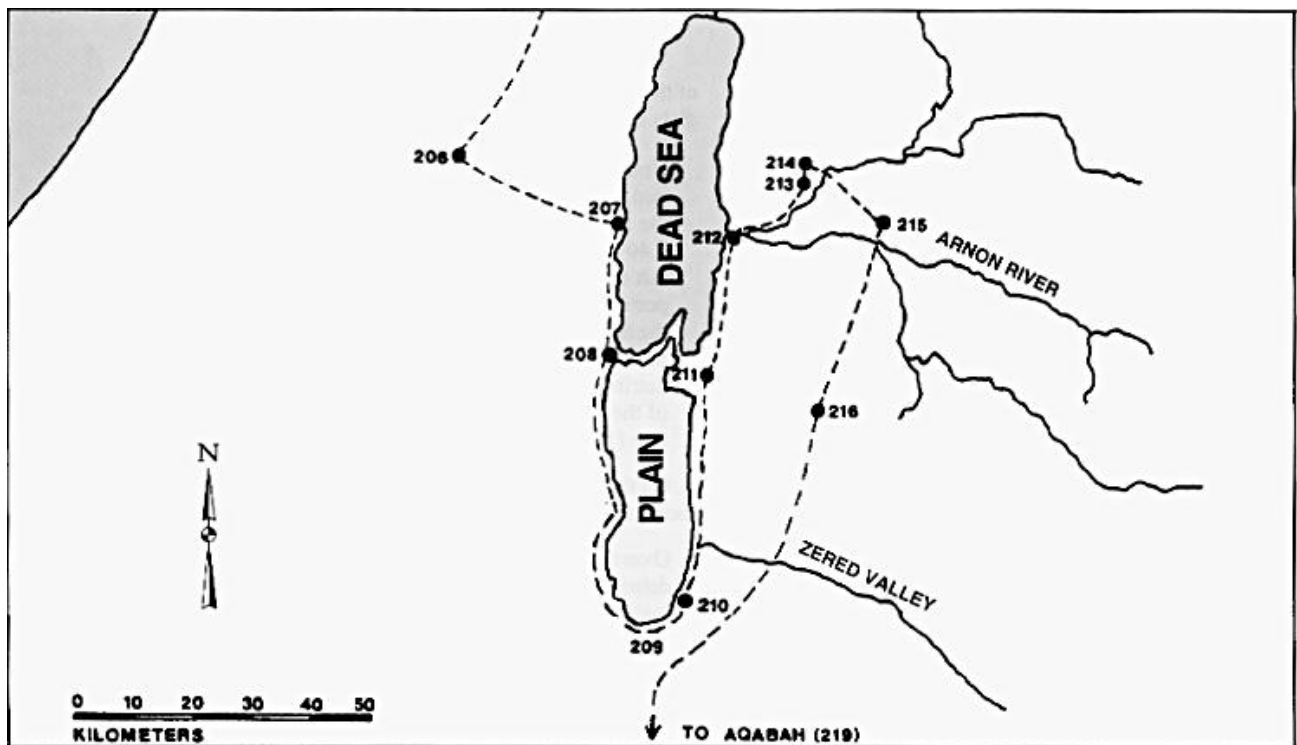
Over the final layer was a thick (0.50–0.10 m) layer of ashy debris, in which were found the skeletons of two mature males who perished in the final destruction of the town; over this was mud brick detritus and rock fall (Coogan 1984: 80).

In Room 4 just inside the southern wall were fragments of human bones above and on the final surface (Rast and Schaub 1980: 44). Numeira met a tragic end and was never again occupied.

It is possible to estimate the time span between the earlier destruction and the final destruction at Numeira. The area adjacent to the inner (west) face of the tower was used as an outdoor activity area. More than 20 alternating layers of chaff and carbonized material were found between the earlier domestic phase and the final destruction layer. The nature of the layers suggests seasonal activity (Coogan 1984: 80). Thus, we can estimate the time span between the two destructions as being a little more than 20 years, which agrees with the Biblical time frame (14 to 24 years) between the events of Genesis 14 and 19 (Shea 1988: 18–19).

Trade With Syria

In 1975 a great archive of clay tablets dating to 2400–2350 BC was discovered at Tell Mardikh, ancient Ebla, in northern Syria (Archi 1997). One of the tablets is a geographic atlas listing 289 place names. An analysis of two segments of the list by William Shea indicates that they are sites located in Palestine, possibly places visited by merchants from Ebla (Shea 1983). The second segment, sites 188–219, traces a route from Syria south through the central hill country of Cisjordan, along the western shore of the Dead Sea, south of the Dead Sea Plain and then north along the east side of the Plain and Dead Sea.



Route traced by the Ebla Geographic Atlas. Site 210 is Admah and site 211 Sodom—the only known occurrence of names of the Cities of the Plain outside the Bible.

In the area corresponding to the east side of the Dead Sea Plain there are two places named—Number 210, Admah, and Number 211, Sodom. If Shea's readings are correct, this would be the only confirmed mention of the Cities of the Plain outside the Bible. But why were not the other three cities, Gomorrah, Zoar, and Zeboiim, mentioned? The excavations at Numeira perhaps can shed some light on that question. These excavations revealed that Numeira (=Gomorrah) was in existence for only a short period of time, less than 100 years. It appears that the Ebla Atlas was composed prior to the founding of Numeira. The same may true of Zoar and Zeboiim.

There has been some corroborating evidence from Bab edh-Dhra for this proposed contact.

Among the cultural items that reflect foreign contact...the majority—including architectural features, cylinder seal impressions, jewelry, some forms of pottery, and a carved bull's head—show Syrian, if not Mesopotamian, influence (Schaub 1993: 135).

Notes:

- i. Large pools of water can be observed in the former area of the southern basin, but these are artificial ponds associated with thriving potash industries operated by Israel and Jordan. Water from the Dead Sea is directed to the pools (salt pans) where it is evaporated, allowing valuable salts to be harvested.
- ii. The Lisan peninsula divides the main, northern, body of the Dead Sea from the shallow southern basin.
- iii. We find such references only for Zoar. There are no later references to the other Cities of the Plain, Sodom, Gomorrah, Admah or Zeboiim, as living communities.
- iv. The "Valley of Siddim (the Salt Sea)" in Genesis 14:3, 8 and 10 is undoubtedly the shallow basin south of the Lisan Peninsula that, in later times when the level of the Dead Sea was higher, became an extension of the Dead Sea. The valley had many pits of *hemor* or bitumen. This

asphalt-like petroleum product was commonly found in the southern basin of the Dead Sea throughout antiquity. The name “Siddim” derives from the verb *saded* which means, “to harrow.” Wherever the verb is used in the Old Testament, it is in an agricultural context (Jb 39:10; Is 28:24; Hos 10:11) (Howard 1988a).

- v. It is possible that these two events, the attack of the coalition of Mesopotamian kings described in Genesis 14 and the destruction of the Cities of the Plain described in Genesis 19, were significant contributing factors in the demise of the Early Bronze III culture in Canaan.

Bibliography

Bilkadi, Z.

1984 Bitumen—A History. *Aramco World* November–December: 2–9.

1994 Bulls From the Sea. *Aramco World* July–August: 20–31.

Clapp, F.G.

1936a Geology and Bitumens of the Dead Sea Area. *Bulletin of Petroleum Geologists* 20: 881–909.

1936b The Site of Sodom and Gomorrah. *American Journal of Archaeology* 40: 323–44.

Coogan, M.D.

1984 Numeira 1981. *Bulletin of the American Schools of Oriental Research* 255: 75–81.

Donahue, J.

1980 Geology. Pp. 47–52 in Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan, eds. W.E. Rast and R.T. Schaub. *Bulletin of the American Schools of Oriental Research* 240: 21–61.

1985 Hydrologic and Topographic Change During and After Early Bronze Occupation at Bab edh-Dhra. Pp. 131–40 in *Studies in the History and Archaeology of Jordan* 2, ed. A. Hadidi. Amman: Department of Antiquities.

Donner, H.

1992 *The Mosaic Map of Madaba*. Kampen, Netherlands: Kok Pharaos.

Howard, D.M., Jr.

1984 Sodom and Gomorrah Revisited. *Journal of the Evangelical Theological Society* 27: 385–400.

1988a Siddim, Valley of. Pp. 499–500 in *The International Standard Bible Encyclopedia* 4, ed. G.W. Bromily. Grand Rapids MI: Eerdmans.

1988b Zoar. P. 1203 in *The International Standard Bible Encyclopedia* 4, ed. G.W. Bromily. Grand Rapids MI: Eerdmans.

MacDonald, B.

1997 Southern Ghors and Northeast' Arabah. Pp 64–66 in *The Oxford Encyclopedia of Archaeology in the Near East* 5, ed. E.M. Meyers. New York: Oxford University Press.

McCreery, D.W.

1980 Paleobotany. Pp. 52–53 in Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan, eds. W.E. Rast and R.T. Schaub. *Bulletin of the American Schools of Oriental Research* 240: 21–61.

1981 Flotation of the Bab edh-Dhra and Numeira Plant Remains. Pp. 165–69 in *The Southeastern Dead Sea Plain Expedition: An Interim Report of the 1977 Season*, ed. W.E. Rast and R.T. Schaub. Annual of the American Schools of Oriental Research 46, ed. J.A. Callaway. Cambridge MA: American Schools of Oriental Research.

Miller, J.M., and Hayes, J.H.

1986 *A History of Ancient Israel and Judah*. Philadelphia: Westminster.

Mulder, M.J.

1992 Sodom and Gomorrah. Pp. 99–103 in *The Anchor Bible Dictionary* 6, ed. D.N. Freedman. New York: Doubleday.

Neev, D., and Emery, K.O.

1995 *The Destruction of Sodom, Gomorrah, and Jericho: Geological, Climatological, and Archaeological Background*. New York: Oxford University Press.

Politis, Konstantinos D.

1999 Of Agios Lot at Deir' Ain' Abata, Jordan. *Bible and Spade* 12: 87–89.

Rast, W.E.

1981 Settlement at Numeira. Pp. 35–44 in *The Southeastern Dead Sea Plain Expedition: An Interim Report of the 1977 Season*, ed. W.E. Rast and R.T. Schaub. Annual of the American Schools of Oriental Research 46, ed. J.A. Callaway. Cambridge MA: American Schools of Oriental Research.

1987a Bab edh-Dhra and the Origin of the Sodom Saga. Pp. 185–201 in *Archaeology and Biblical Interpretation*, ed. L.G. Perdue, L.E. Tombs and G.L. Johnson. Atlanta: John Knox.

1987b Bronze Age Cities Along the Dead Sea. *Archaeology* 40: 42–49.

1992 Bab edh-Dhra'. Pp. 559–61 in *The Anchor Bible Dictionary* 1, ed. D.N. Freedman. New York: Doubleday.

Rast, W.E., and Schaub, R.T.

1974 Survey of the Southeastern Plain of the Dead Sea, 1973. *Annual of the Department of Antiquities of Jordan* 19: 5–53, 175–85.

1980 Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan. *Bulletin of the American Schools of Oriental Research* 240: 21–61.

Schaub, R.T.

1992 Safi. Pp. 895–96 in *The Anchor Bible Dictionary* 5, ed. D.N. Freedman. New York: Doubleday.

1993 Bab edh-Dhra'. Pp. 130–36 in *The New Encyclopedia of Archaeological Excavations in the Holy Land* 1, ed. E. Stern. New York: Simon & Schuster.

1997a Bab edh-Dhra'. Pp. 248–51 in *The Oxford Encyclopedia of Archaeology in the Near East* 1, ed. E.M. Meyers. New York: Oxford University Press.

1997b Southeast Dead Sea Plain. Pp. 62–64 in *The Oxford Encyclopedia of Archaeology in the Near East* 5, ed. E.M. Meyers. New York: Oxford University Press.

Schaub, R.T., and Rast, W.E.

1984 Preliminary Report of the 1981 Expedition to the Dead Sea Plain, Jordan. *Bulletin of the American Schools of Oriental Research* 254: 35–60.

Shea, W.S.

1988 Numeira. *Archaeology and Biblical Research* 1: 12–23.

deVries, B.

1991 Archaeology in Jordan. *American Journal of Archaeology* 95: 253–80.