

## A LAND FLOWING WITH MILK AND HONEY

S. DOUGLAS WATERHOUSE

Ann Arbor, Michigan

It is today difficult to imagine the Holy Land as "a heritage most beauteous of all nations" (Jer 3: 19).<sup>1</sup> After viewing nature's more richly verdant landscapes, as are to be found, for example, within the temperate zones of Europe or North America, the heritage of ancient Israel seems poor indeed! Covered with degraded vegetation and brush, or consisting simply of bare rocks, denuded hillsides and exposed gullies, modern-day Palestine-Syria<sup>2</sup> seems far removed from what Bible writers designated as a Promised Land. This is particularly true during the dry summer months when it appears as if all vegetation has been obliterated. The hillcountry, with its conspicuously bare, limestone outcropping, then seemingly emerges as the bleak skeleton of a barren land. True, the dryness is only relative, but the ruins of proud cities which flourished hundreds and thousands of years ago are to be seen today where Bedouins of the desert live as nomadic tribes. Could it be possible that this was the land described in the Old Testament as "flowing with milk and honey?"<sup>3</sup> Is it

<sup>1</sup> The Biblical texts used in this paper are taken from either the RSV or the KJV.

<sup>2</sup> The bounds of ancient Canaan include all of Palestine west of the Jordan, and extend up the Phoenician Coast at least as far north as Ugarit and the Orontes valley. For recent discussions on the boundaries of Canaan as given by extra-Biblical sources, cf. I. J. Gelb, "The Early History of the West Semitic Peoples," *JCS*, XV (1961), 42; John. C. L. Gibson, "Observations on Some Important Ethnic Terms in the Pentateuch," *JNES*, XX (1961), 217-218; B. Mazar, "Geshur and Maacah," *JBL*, LXXX (1961), 17-18.

<sup>3</sup> A proverbial expression for a land of plenty which is paralleled in Canaanite (Ugaritic) literature in the passage: "The skies were raining fatness, the wadies were running with honey," Theodor H. Gaster, *Thespis* (New York, 1950), p. 22; cf. James B. Pritchard, ed., *Ancient Near Eastern Texts* (2d edition; Princeton, N. J., 1955), p. 140 (here-

possible that this was the country which boasted of inhabitants as strong as oaks and as tall as cedars? <sup>4</sup>

A perusal of the literature bearing on the history of this region reveals that Palestine is but one in a series of Mediterranean lands which in times past were reknown for their former prosperous productivity, but which are today blighted by want. <sup>5</sup> One is left, nevertheless, to wonder how Biblical Canaan compared with the real fertile areas of antiquity—areas like the Nile Valley or ancient Babylonia. <sup>6</sup> And if there was a comparison—how did the land reach such a low ebb as is evident today?

It must be confessed that certain archaeological findings have not enhanced the notion that Palestine was once a land of fabulous natural endowments. Excavations, for example, have produced a disproportionately small amount of gold and silver in the Israelite strata when compared to contempo-

after *ANET*). Ancient religious philosophy was obsessed with finding a means to prevent the corrosive influences of time and restore the primeval, mythical golden age of plenty. The concept underlying the Biblical description of the Promised Land likens Canaan to this golden age when all was once prosperous; see Gaster, *loc. cit.*; Mircea Eliade, *Cosmos and History* (New York, 1959).

<sup>4</sup> Amos 2: 9. The Old Testament speaks of the land as being so productive that a single cluster of grapes was too large for one man to carry (Num 13: 23)!

<sup>5</sup> But note, for instance, the Israeli reclamation work which is now succeeding in establishing a flourishing agricultural population in the low-lying plains and valleys of Palestine.

<sup>6</sup> As a sample of the astounding productivity of these areas in ancient times, see particularly the article of Waldo H. Dubberstein: "Comparative Prices in Later Babylonia (625-400 B.C.)," *AJSL*, LVI (1939), 20-43. He writes: "Mass production was . . . the style in later Babylonia (625-400 B.C.). Contracts show as many as forty thousand bushels grown on one tract . . . Barley, the most common grain in Babylonia, was produced on a scale rivaling grain production on present-day farms and ranches. Nearly fifty thousand bushels of barley were measured into Eanna, the temple of Ishtar of Uruk, from one piece of property. . . Glimpses of great flocks and herds are given . . . A temple income list of wool shows over ten thousand pounds of sheep wool and several hundred pounds of goat 'wool' being weighed in," etc. (*Ibid.*, pp. 25-29).

rary strata of Syria, Egypt, or Mesopotamia.<sup>7</sup> Although gold and silver have not been so meager in the earlier Canaanite levels, the question persists as to whether or not Canaan deserves its lustrous fame as a bounteous land of wealth.<sup>8</sup> Some have even suggested that the Biblical outlook was colored from the standpoint of a nomadic desert people inured to the waste lands prior to their entry into Canaan.<sup>9</sup> The purpose of this article is especially directed to deal with this claim.

Climatic theorists, the most notable of which was Ellsworth Huntington, puzzled by the formerly productive but now arid landscape of Syro-Palestine, explained the apparent desiccation of the land as due to drastic recurring climatic cycles—a notion which was freely drawn upon in explaining the fall and rise of past civilizations.<sup>10</sup> There is, however, no real evidence to support those who attribute the present comparative poverty of the Mediterranean area to either cyclic changes in rainfall and temperature or to a gradual change in climate.<sup>11</sup> After all, it was no climatic change that turned Oklahoma into a dust-bowl in half a century!

<sup>7</sup> W. F. Albright, *The Archaeology of Palestine* (Revised edition; Pelican Book, 1960), p. 252 (hereafter *AP*).

<sup>8</sup> It is, of course, a well-known archaeological fact that Canaan enjoyed a material wealth unmatched by later Israelite strata. Cf. James L. Kelso, "Excavations at Bethel," *BA*, XIX (1956), 39-40.

<sup>9</sup> Cf., for example, Cyrus H. Gordon, *Introduction to Old Testament Times* (Ventnor, N. J., 1953), pp. 131-132.

<sup>10</sup> Ellsworth Huntington, *Palestine and its Transformation* (Boston, 1911). For a scholarly appraisal of Huntington's climatic theories, see A. T. Olmstead, "Climatic Changes in the Nearest East," *Bulletin of the American Geographical Society*, XLIV (1912), 432-440; Albright, *From the Stone Age to Christianity* (2d edition; Baltimore, 1946), pp. 71-74; Denis Baly, *The Geography of the Bible* (New York, 1957), pp. 70-74.

<sup>11</sup> Baly leans toward the view that though there was no different climatic regime during the Biblical period from the present, the balance of that regime has varied from time to time. In a logical argument, Baly points out that any slight variation of the climate at all must in some way affect the position of the marginal frontierland lying between the desert and the sown; Baly; *loc. cit.* F. S. Bodenheimer follows the same thought: "We do not suppose that any important fluctuations

Happily for the historical investigator, Palestine offers the most complete and continuous picture of human history that is at present available in any part of the world. Past theories, built to explain the obviously drastic changes (dealt with more fully below), which Palestine has experienced throughout its long history, have had to face an ever relentless increase of knowledge. It was for some years assumed, for example, that the prehistoric fauna of the Eastern Mediterranean littoral reflected a real cold-period of "glacial age" Europe. Such fossil flora (found in Lebanon) as beech, hazel, elm and large-leaved oak were taken as indicators of a northern boreal invasion caused by a southward moving cold front. Subsequent discovery, however, has revealed that these same plants, far from having any bearing on historical interpretation, are still thriving today in North Syria and Anatolia!<sup>12</sup> Similarly, a supposed "faunal break"—an extinction of certain biotypes—was taken as one of the main evidences for distinguishing between "the Upper and Lower Levallois-Mousterian levels" in Palestine. More recent investigation, however, has demonstrated that such "warm" species, as the hippopotamus, did not disappear by a sudden, prehistoric shift in climate but survived in Palestine way into historical times.<sup>13</sup> The case against climatic changes, even in the remote past, has therefore been strengthened.<sup>14</sup>

of temperature occurred since the mesolithic era. But even relatively small changes in the field of precipitations, slight increases of rain from 100 to 200 mm *per annum*, combined with a greater stability of annual and seasonal rain distribution, must have had far-reaching consequences, changing wide areas and patches of desert into steppes and savannas, permitting passage and penetration of animals from the east, west and south." *Animal and Man in Bible Lands* (Leiden, 1960), p. 129.

<sup>12</sup> Bodenheimer, *op. cit.*, p. 18.

<sup>13</sup> Georg Haas, "On the Occurrence of Hippopotamus in the Iron Age of the Coastal Area of Israel (Tell Qasileh)," *BASOR*, No. 132 (1953), 30-34.

<sup>14</sup> It is still generally held, however, that a past age of tropical conditions prevailed when the land was "raw and damp and hot." This condition is said to have been changed "at the beginning of the

Direct evidences against any drastic climatic changes are not wanting. A type of terrestrial mollusc, sensitive to variations in humidity, thrives today in the Beersheba region much as it did when men first settled in that locality.<sup>15</sup> Even in such an exotic milieu as that of the prehistoric cave remains of Palestine, climatic forces seem to have been very much like that of the present, *e.g.*, the lack of fossilization among the early vertebrate-remains from Geulah Cave B (in the proximity of Mount Carmel) clearly indicate that conditions of humidity did not change significantly (within the cave) since the deposition of the bones there.<sup>16</sup>

In past millennia rain was certainly more effective in Palestine. Then there were forests and woodlands whose roots would hold back the water and prevent the drying up of springs.<sup>17</sup> At the dawn of recorded history, when the Syro-Palestinian littoral enjoyed a pristine state, this was especially true. The land was then extremely lush.<sup>18</sup> At a time prior

Mesolithic Natufian period" by the advent of a cooler, drier climate; cf. Nelson Glueck, *Rivers in the Desert* (New York, 1957), pp. 2-3; Bodenheimer, *op. cit.*, p. 32; Haas, *loc. cit.*

<sup>15</sup> J. Perrot, "The Excavations at Tell Abu Matar, near Beersheba," *IEJ*, V (1955), 83, n. 10. The shell remains of *Sphincterochila boissieri Charp.* are dated to the Ghassulean (Chalcolithic) era.

<sup>16</sup> The remains of the Geulah Caves are dated to the Levallois-Mousterian, *e.g.*, Middle Palaeolithicum. It is also of significance that "this skeletal assemblage appears *in situ* and has not been washed in hither," S. Angress, "The Vertebrate Remains from Geulah Cave B," *IEJ*, X (1960), 84-89. The biotype remains from the Abu Usba Cave (dated to the Mesolithic-Natufian) point toward the same climatic conditions then as found today, M. Stekelis and G. Haas, "The Abu Usba Cave," *IEJ*, II (1952), 46.

<sup>17</sup> Baly, *op. cit.*, p. 76.

<sup>18</sup> The modern Near East with the aridity of its present climate hardly prepares one in imagining its early history when there were many more rivers, much more vegetation, and a land replete with various forms of animal life. A brief survey of conditions as they then appeared is given in Henri Frankfort, *The Birth of Civilization in the Near East* (Doubleday Anchor Books, 1956), pp. 26-29; 37-45. Speaking of his approach to field research dealing with the prehistory of western Asia, Robert J. Braidwood expresses doubts on the feasibility of being able to find data from that early a period in Palestine: "I would not

to that of the Egyptian Fifth Dynasty (*e.g.*, prior to about 2400 B.C.),<sup>19</sup> Syro-Palestine was purportedly clothed with greenery; an abundance of herbage supported what must have been a veritable parkland teeming with wild life.

Scholarly research has made it possible to catch a snatching glimpse of that primeval setting. Although rain was distributed, in all likelihood, in a manner similar to that of today,<sup>20</sup> permanent, sizable rivers were not uncommon.<sup>21</sup> Along the coastal low country, open grassy plains and perennial pools existed inland from the dune belt.<sup>22</sup> Houses (Chalcolithic) were of necessity raised on piles above what was evidently an extremely marshy land.<sup>23</sup> A glimpse is also afforded of the Jordan Valley which is seen in tropical abundance "well watered everywhere like the garden of the Lord, like the land of Egypt" (Gn 13: 10).<sup>24</sup> Archaeological investigations have not only made it reasonably certain that at that time many more lateral streams flowed in the Jordan than there are today, but also that it was intensively developed, in spite of its present summer heat and mosquito-breeding swamps.<sup>25</sup>

This primeval picture did not last long into historical times. Toward the end of the third millennium B.C., there was a marked desiccation in the amount of available moisture.<sup>26</sup>

lay much of a bet on the lush Syro-Palestinian littoral: I've a hunch it was *too* lush," "Jericho and its Setting in the Near Eastern History," *Antiquity*, XXXI (1957), 80.

<sup>19</sup> Cf. John A. Wilson, *The Culture of Ancient Egypt* (Chicago, 1956), p. 20; S. Yeivin, "Tel Gath," *IEJ*, XI (1961), 191; Kathleen M. Kenyon, *Digging Up Jericho* (New York, 1957), pp. 184-185.

<sup>20</sup> Stekelis and Haas, *loc. cit.*

<sup>21</sup> Dorothy A. E. Garrod, "The Stone Age of Palestine," *Antiquity*, VIII (1934), 146.

<sup>22</sup> Stekelis and Haas, *loc. cit.*

<sup>23</sup> Albright, *AP*, p. 68.

<sup>24</sup> Both Biblical and extra-Biblical sources attest the former beauty and productiveness of the Jordan-enriched plains; see Albright, "The Jordan Valley in the Bronze Age," *AASOR*, VI (1926), 13-74; Lucetta Mowry, "Settlements in the Jericho Valley During the Roman Period (63 B.C.-A.D. 34)," *BA*, XV (1952), 26-42.

<sup>25</sup> Albright, *AP*, p. 69; *AASOR*, VI (1926), 67-68.

<sup>26</sup> See above, n. 19.

In the environs of ancient Jericho a major drop in water level occurred concomitantly with a severe erosion which removed at least three feet of the overlying, soft, limestone rock. Consequently, underground tombs of Jericho, built prior to the Egyptian Sixth Dynasty, were left roofless.<sup>27</sup> At the same time, settlements may have been abandoned along the Mediterranean coastal plain.<sup>28</sup> Presumably, with the drying up of the marshes, the Philistian-Sharon coastal inhabitants were affected by the growing shortage of water.

An increase in population and a decrease in forests and top soil were evidently already joining hands with the corrosive influence of passing time! The trend toward contemporary conditions of aridity, however, was never again to bite so deeply into Palestine's water level.<sup>29</sup>

As Canaan moved more clearly into the Old Testament world, its natural endowments were far from abated. Dense woodlands covered districts which are now largely, or even entirely, bereft of tree growth. Today, meager remnants of these once extensive forests are found in the Judean and upper Galilean hill country. While the Carmel ridge and the Transjordan section of the 'Ajlûn are still substantially wooded, even these regions are poor reminders of the towering thickets of tree growth found in former centuries. The Meri-ka-Re texts of the Egyptian Ninth or Tenth Dynasties (cir. 2100 B.C.) speak of southern Palestine as troubled by water and made inaccessible by many trees.<sup>30</sup> Interestingly, in the

<sup>27</sup> Kenyon, *loc. cit.*

<sup>28</sup> Cf. Yeivin, *op. cit.*, p. 191.

<sup>29</sup> Since the second millennium B.C. the water-level of Palestine has remained roughly the same as it is today; Albright, *AP*, pp. 250-251; W. C. Lowdermilk, *Palestine: Land of Promise* (New York, 1944), pp. 63-64. That boundary between the desert and the sown has remained the same since Biblical times is shown by archaeological investigation and such Biblical passages as 2 Ki 3: 9 where Transjordan is seen with the same dry, climatic conditions as is found there today. Cf. Albright, *Archaeology and the Religion of Israel* (2d edition; Baltimore, 1946), p. 100.

<sup>30</sup> Sir Alan Gardiner, *Egypt of the Pharaohs* (Oxford, 1961), p. 37. An Egyptian literary text from the second half of the thirteenth

environs of the Judean hill country, there existed a large coniferous forest of pine and cypress where now there is scarcely a tree substantial enough to be used for the building of houses or furniture!<sup>31</sup>

If one considers the fuel requirements of the early metallurgical industries and the considerable amount of trees utilized for the walls and houses of such ancient cities as that of Jericho,<sup>32</sup> wood must have really been abundant! The formerly rich supply of timber, a stately legacy of pre-Israelite Canaan, was to wane rapidly with the coming of the Hebrews.<sup>33</sup> By the twelfth century B.C., the coniferous forest had largely disappeared from the hillcountry,<sup>34</sup> and by Solomon's reign, in the tenth century B.C., Hiram, king of Tyre, had to be called upon to supply wood for the building of the temple in Jerusalem (1 Ki 5: 6-18)!

Of the wild life which in former times filled the land, an amazing number show strong affinities to animal-forms presently associated only with the African savanna country. Lions once roamed in the forested sections of the land and

century B.C. describes Palestinian roads as being darkened with an overgrowth of cypresses, oaks, and cedars; *ANET*, p. 477. On the former forestation of Palestine see especially B. S. J. Isserlin, "Ancient Forests in Palestine: Some Archaeological Indication," *PEQ*, LXXXVII (1955), 87-88; Siegfried H. Horn, *Seventh-day Adventist Bible Dictionary* (Washington, D. C., 1960), pp. 804-806.

<sup>31</sup> Albright, *AASOR*, IV (1942), 7-8, 20.

<sup>32</sup> Perrot, *op. cit.*, p. 84; Kenyon, *op. cit.*, pp. 183-184.

<sup>33</sup> Note, for example, that Joshua told the men of the Joseph tribes to make room for themselves in Mt. Ephraim by clearing the forest (Jos 17: 15). In making the land habitable, the Hebrews undoubtedly pushed back the forested areas to much smaller perimeters; see below, note 34.

<sup>34</sup> Evidence from the excavations at Gibeah indicate the apparent disappearance of pine and cypress in that locality sometime between the thirteenth and the eleventh centuries B.C.; Albright, *AASOR*, IV (1942), 7-8, 20. Originally, a very extensive coniferous forest may have formed a more or less continuous belt from the heights of Lebanon down through the entire length of the Palestinian hillcountry. The soil and climate of the hillcountry is said to be "admirably adapted" to this type of forest.



had their lairs in rocky caves. An Egyptian literary document dated from the second half of the thirteenth century B.C. states that: "the soldier, when he goeth up to Retenu (Palestine) hath no staff and no sandals. He knoweth not whether he be dead or alive, by reason of the fierce lions." Another document from the same period complains that Canaan has more lions than panthers or hyenas!<sup>35</sup> It may be recalled that the Old Testament speaks of actual encounters with lions—Samson tore a young lion "and he had nothing in his hand" (Jugs 14: 5-6); even the youthful David attacked lions and bears and killed them (1 Sa 17: 34-36). Surprisingly, the lion was still to be seen in Palestine as late as A.D. 1850.<sup>36</sup>

The hippopotamus was once found in the rivers of the coastal plain, (until at least the fourth century B.C.), possibly in the Jordan, and as far north as the Orontes River. Luxuriant swamp flora, such as water lilies and papyrus, served as an ideal habitat for these great beasts. Remnants of this flora were still surviving as recently as a hundred years ago along the upper Jordan and the coastal rivers.<sup>37</sup> The Syro-Palestinian hippo is spoken of by Job as lying under "the lotus plants . . . in the covert of the reeds and in the marsh . . . Behold, if the river is turbulent he is not frightened; he is confident though Jordan rushes against his mouth" (Job

<sup>35</sup> Bodenheimer, *op. cit.*, p. 169; *ANET*, p. 477.

<sup>36</sup> Ludwig Kohler, *Hebrew Man* (Nashville, Tenn., 1953), p. 26. Layard reports that in the 1840's lions were frequently caught "in the Sinjar, [in Mesopotamia] and on the banks of the Kabour [Khabur] . . . by the Arabs." The lion, at that time, was still well known along the Euphrates and lower Tigris rivers, Austen Henry Layard, *Nineveh and Its Remains* (London, 1850), p. 48.

<sup>37</sup> Haas, *BASOR*, No. 132 (1953), 30-34. Excavations at Tell Qasileh near Tel-Aviv have unearthed hippopotamus remains from the 12th-14th century B.C.; elsewhere, hippo remains are dated to the 13th-14th century B.C. from Ras Shamra (Ugarit), and to about 1500 B.C. from the Orontes River. Only prehistoric hippopotamus remains have so far been dredged up from the Jordan, but it seems very likely that they persisted in this river way into historic times (cf. Job 40: 23; although *behemoth* is a general expression for beasts, Job undoubtedly is here referring to the hippo).

40: 15-23). Such a scene may presently only be paralleled in equatorial Africa! Job also mentions the crocodile (41: 1-10) which up to the beginning of this century still survived in Palestine (south of Haifa) in a limited coastal swamp area (Nahr ez-Zerqā).<sup>38</sup>

Strange as it may now seem, until at least the thirteenth century B.C., elephant herds roamed within range of the Orontes and possibly on the lake of Apamea, in central Syria.<sup>39</sup> The jackal, spotted hyena, wart hog, *Megaderma*-bat and even the rhino, were surprisingly all part of early, Syro-Palestinian history and represent (with the animals enumerated above) the last survivors of a fauna which had once invaded the country from the north and east—before reaching the then virgin African territories.<sup>40</sup>

Historical sources illuminate not only the fact that Palestine's fauna has undergone continuous reduction and thinning from human dawn until our own days,<sup>41</sup> but also throw light on how the ancients themselves esteemed the Eastern Mediterranean littoral. The "novel" of Sinuhe, dating from the twentieth century B.C., describes the highland of Palestine-Syria as a land of figs and vines, having more wine than water. "Plentiful was its honey, abundant its oil and all fruits were

<sup>38</sup> Haas, *op. cit.*, pp. 32-33; Bodenheimer, *op. cit.*, p. 65.

<sup>39</sup> R. D. Barnett, *A Catalogue of the Nimrud Ivories with other Examples of Ancient Near Eastern Ivories in the British Museum* (London, 1957), pp. 164-165; Bayard Dodge, "Elephants in the Bible Lands," *BA*, XVIII (1955), 17-18. For the location of Niya see Sir Alan Gardiner, *Ancient Egyptian Onomastica* (Oxford, 1947), I, 271.

<sup>40</sup> Thus Bodenheimer, *op. cit.*, pp. 16-17. It would not be too surprising if evidence should be forthcoming on the early existence in Syro-Palestine of other members of the so-called "African fauna." Both from reliefs (Barnett, *op. cit.*, p. 59, n. 10) and the Assyrian annals (*ANET*, p. 297) it is known that Ashurbanipal (668-633 B.C.) received monkeys and apes from Phoenicia. The evidence, so far, however, is not of a decisive nature and it is generally held that the Canaanites regularly imported monkeys or apes for religious purposes, Barnett, *op. cit.*, p. 108; W. C. McDermott, *The Ape in Antiquity* (Baltimore, 1938), p. 23.

<sup>41</sup> Bodenheimer, *op. cit.*, p. 29.

on its trees. There was barley in it and wheat, and countless cattle of all kinds." The daily fare, which the land offered, was said to have been bread, wine, cooked meat and roast fowl "over and above the wild game of the desert" and "milk prepared in every way." As F. S. Bodenheimer has pointed out, this was obviously a country of "milk and honey!"<sup>42</sup>

Canaan's prosperous cities, fertile plains, rich mineral wealth, natural resources, strategic harbors and vital trade routes (linking the land of the Nile with Asia Minor and the mighty empires of the Tigris and the Euphrates) continually lured invaders. One of the most notable was the great Egyptian conqueror Thutmose III (fifteenth century B.C.). With the advent of his reign, long lists of Asiatic tribute and booty appear on Egyptian steles and on temple walls. These lists serve as a good indicator of Canaan's productivity. Quantities of grain, oil and wines, fruits and other luscious things of the land are listed. One year mentions that the kinglets of Canaan rendered unto Pharaoh: "30 horses, chariots wrought with silver and gold, decorated with paintings, 90 man-servants, 40 maid-servants, gold . . . , long-horned and dehorned cattle, sacrificial bulls and asses." Among the tribute of another year are to be found: "45 bulls, 749 rams, therebinth resin, 823 jars of honey, ivory and carob wood."<sup>43</sup> In a letter to a later Pharaoh, a prince of central Syria is found echoing these tribute lists: "When the troops and chariots of my lord came, food, drink cattle . . . honey and oil, were brought forth for the troops and chariots of my lord."<sup>44</sup> Evidently, when Pharaoh's army penetrated into hither Asia, Canaan's bounty was depended upon to sustain the intruders.

If doubt still persists that Canaan was not a land flowing with milk and honey, an effective answer is given in the account of Thutmose's decisive victory over the famed fortress-

<sup>42</sup> *Ibid.*, pp. 164-165; for the story of Sinuhe see *ANET*, pp. 18-22.

<sup>43</sup> Bodenheimer, *op. cit.*, p. 166.

<sup>44</sup> S. A. B. Mercer, *The Tell El-Amarna Tablets* (Toronto, 1939), No. 55: 10-12.

city of Megiddo. In striking contrast to the few dozen casualties inflicted on the conquered and the 340 prisoners taken, an enormous booty is listed consisting of 20,500 sheep, 2,041 horses, 2,000 goats, 1,929 cows, 191 foals, 6 stallions, 924 chariots and other precious objects!<sup>45</sup> And this at an age when such cities as Megiddo were small (18 acres) and the population light (all Palestine may then not have had more than 200,000 people).<sup>46</sup>

Significantly, pharaonic monuments markedly differentiate between the slight of built, slender Egyptians and the more heavily constructed, inclined-to-be-corpulent Canaanite.<sup>47</sup> An Egyptian text of the thirteenth century B.C. even speaks of Canaanites having the height of "four or five cubits (from) their noses to the heel" (or being around seven to nine feet tall)!<sup>48</sup> The Egyptian text is reminiscent of an Old Testament passage written in the same vein: "All the people that we saw in it (Canaan) are men of a great stature. And there we saw the giants . . . and we were in our own sight as grasshoppers, and so we were in their sight" (Num 13: 33). A more apt symbol may not be found of a country's fruitful prosperity than inhabitants famed for their great stature and tremendous girth!

What has happened to change the country where people once lived off the "fat of the land?" How did its former "luster", coveted in antiquity, become so dim? Part of the

<sup>45</sup> Bodenheimer, *op. cit.*, p. 165; *ANET*, p. 237. Thutmose III, in one of his additions to the great temple of Karnak, illustrated the strange plants and a number of animals he found in Palestine and Syria. These illustrations, only a part of which are extant, form the oldest zoological atlas from Palestine. Interestingly, "all species of wild animals [the great majority are birds] represented in the Karnak temple are still present in Palestine," Bodenheimer, *op. cit.*, p. 168.

<sup>46</sup> The population estimate is that of Albright's; see Edward F. Campbell, "The Amarna Letters and the Amarna Period," *BA*, XXIII (1960), 21.

<sup>47</sup> George Steindorff and Keith C. Seele, *When Egypt Ruled the East* (Chicago, 1957), p. 48.

<sup>48</sup> Papyrus Anastasi I; *ANET*, p. 477.

answer is certainly to be found in studying the region's climate. The effect of too little rain and too much sunshine—where the weather is good, but the climate is bad<sup>49</sup>—has caused the Palestine area to be less tolerant of abuse than temperate areas are. Although the robber economy that destroys forests and wastes the wealth of the soil has held sway in almost every part of the world, it has been particularly abusive in sub-tropical environments, such as that of the Mediterranean. Particularly damaging is the absence of rain during the long dry season, the excessive concentration of rainfall in the torrential winter rains and the salinity of poorly drained soils.<sup>50</sup> In such an environment the misuse of the land leads rapidly to extensive soil-destruction, which is difficult to repair. Where in Roman times, the soil may have been 6 1/2 feet deep, there is now only rock surfaces.<sup>51</sup> Cleared and cultivated, terraced and wasted through the centuries, the

<sup>49</sup> The climate is being spoken of as "bad" in the historical sense. The Mediterranean climate is characterized by cold, rainy winters and long, dry summers, separated by short spring and autumn seasons during which climatic conditions are extremely unpredictable. The geographer speaks of southern California, and some parts of Chile and South Africa as "Mediterranean." "The relative dryness of the hill-country of Palestine joins with its elevation to make it one of the most healthful regions of the Near and Middle East, as well as one of the poorest areas occupied by a sedentary population . . ." Albright, *AP*, p. 254. The problem of Palestine's climate is not lack of rain, but the fact that practically all the rain falls in the colder half of the year when it is of little use for vegetation, cf. below, note 50.

<sup>50</sup> Exploration has revealed that extraordinary care was taken in antiquity for the conservation of water. "Innumerable dams, reservoirs, and cisterns were constructed, in which the winter rain was collected and from which a supply of water for the months of dryness was obtained." G. Ernest Wright and Floyd V. Filson, editors, *The Westminster Historical Atlas to the Bible* (Rev. ed.; Philadelphia, 1956), p. 64.

<sup>51</sup> Palestine-Syria, before erosion transformed it into a desert, was well supplied with water. "One finds stone spring houses beside springs which ceased to exist when the soil was removed by erosion. In some instances there appears to have been perennial water in the now dry streambeds . . . it is impossible to explain the use of certain olive oil presses except on the assumption that the soil was then 6 1/2 feet deep over the present rock surface . . . Man-induced erosion of the soil has in this region . . . swept 3 to 6 feet of the soil from the hill

land is frequently left stony and sterile. Unfortunately, soil wash is still continuing where there is any soil left.

The present state of Palestine is also tied up with its past political struggles. In the bitter Jewish insurrection which terminated with the destruction of Jerusalem in A.D. 70, thousands of Jews from all over Palestine were either killed or scattered as slaves throughout the Roman empire. Slightly more than sixty years later, a disaster took place in an even more bitter rebellion which was cruelly and devastatingly crushed. The result was a major disruption and a great impoverishment of town and city life. Finally, there was the Arab invasion of A.D. 630 which opened up the country to nomadic Bedouin tribes of the desert. Speaking of these intruders, Walter C. Lowdermilk writes:

They pitch their black, batlike tents amidst ruins of the magnificence of the past and allow the terraces to break down and the soils to wash away. They permit their goats to destroy and trample out the former measures for conservation of the soil and water . . . The nomadic invaders and their goats worked hand in hand with erosion to destroy the fertility of the lands . . . by fire and the axe they destroyed the remaining forest as well as plantations of olives and vines.<sup>52</sup>

The geographical changes which man and time have inflicted upon Palestine is no more tellingly exemplified than by tracing the history of the Dead Sea. Small in antiquity, situated in what once must have been a beautiful vale,<sup>53</sup> the Sea has steadily risen, inundating and destroying—with its rising waters—cities,<sup>54</sup> roads,<sup>55</sup> extensive tamarisks groves,<sup>56</sup> mason-

lands," Lowdermilk, "Erosion at its Worst, and a Hundred Dead Cities," *Soil Conservation*, V (1939), 160-162.

<sup>52</sup> *Ibid.*, p. 162.

<sup>53</sup> Cf. Gen 13: 10. In ancient times the whole Jordan Valley was known for its great productivity. In Roman times the Jericho region was famous for both its sweet wine and the fruit of its palm trees, Mowry, *op. cit.*, pp. 31-32; see above, note 24.

<sup>54</sup> Gen 14: 3; cf. also F. G. Clapp, "The Site of Sodom and Gomorrah," *AJA*, XL (1936), 323-344.

<sup>55</sup> In Roman times a causeway connected the present peninsula of El Lisan to the coast of Judah, near Masada. In fact, this crossing was still possible to ford as late as 1846, *Ibid.*, pp. 204-205.

<sup>56</sup> Many square miles of former tamarisk groves are now clearly

ry,<sup>57</sup> fresh-water springs,<sup>58</sup> and even the recently (1886) visible island of Rujm el-Bahr (which formerly stood near the northern head of the Sea).<sup>59</sup> Although the factors which are causing this "overflowing" are not as yet fully understood,<sup>60</sup> a major cause is surely to be found in the disruption of former irrigation, the denudation of the forests, the loss of moisture-absorbing soil-cover, and the constant silting of erosion.

The Biblical prediction that "the earth shall wax old as a garment" (Is 51: 6) has certainly been dramatically fulfilled in the Holy Land!

visible under the sea water south of El Lisan, Albright, *AASOR*, VI (1926), 14.

<sup>57</sup> The level of the Sea "has risen more than ten meters since masonry construction of some kind were buried under it," Albright, *BASOR*, No. 163 (1961), 51, n. 73.

<sup>58</sup> There are now a number of fresh water springs which are right on the water's edge, Baly, *op. cit.*, p. 203.

<sup>59</sup> Clapp, *op. cit.*, p. 338.

<sup>60</sup> Why this peculiar "dead-end" Sea is rising still remains as enigma. It is obviously caused by the combination of many reasons. Albright suggests that the deposit of silt, and the influx of the salts into a body of water which already contains them in saturated solution "naturally means that there is a constant and rapid deposition of mineral crystals on the bottom," Albright, *AASOR*, VI (1926), 55-56.