DROUGHT, FAMINE AND PESTILENCE IN AMORAIC PALESTINE *

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Agricultural decline was a significant element in the social, economic, and political débâcle of the Roman Empire during the later third century. Elsewhere we have attempted to describe this decline, demonstrating that both quality and quantity of yields were severely affected. We suggested that no one cause can be put down simply to explain this phenomenon, but rather that a number of different factors came together to a head during the sixties of the third century, bringing about the great crisis of the following decades. Amongst these factors undoubtedly the element of climate played a significant role. Irregularity of the seasons and successive droughts, followed by famine and pestilence, took their toll of both the population and the land, contributing a tragic element to the bleak and sombre drama of the third century. It is this element that we shall try to describe in the following pages. *

*) This should be seen as a continuation of my article on agricultural trends in third century Palestine, in JESHO, 15/3 1972, pp. 227-35. See also my studies on Patronage in JESHO, 14/3, 1971, pp. 227-32, and on social and economic conditions during this period in Archiv Orientální, 38, 1970, pp. 1-25. Here one methodological point should be made. While it is known that there were no significant climatic changes in Palestine over the last two thousand years, (see most recently the dendroarchaeological studies of Nili Lifshitz and Yoav Waisel of the botany department of Tel-Aviv University, nos. 2-10, 15/5/71-20/10/72. I should like here to express my thanks to them for sending me the results of their investigations), undoubtedly there were climatic ups-and-downs within this period. An examination of the fluctuations in the level of the Dead Sea even since the beginning of the Nineteenth Century makes this preeminently clear. (See Ciporra Klein’s study of this issue, in State of Israel, Ministry of Agriculture Hydrological Paper no. 7, Jerusalem, 1965, especially chart at end of book. My thanks to Miss Klein for giving me a copy of her paper.) See also M. R. Bloch’s very interesting study in Palaeography, Palaeoclimatology, Palaeoecology, 1, 1965, pp. 127-42, and his additional remarks, ibid. 4, 1968, pp. 219-26. (My thanks to Dr. Bloch for supplying me with material on his theories.) On the Dead Sea’s level, see D. Neev and K. O. Emery’s joint paper, published by State of
It appears that already in the early second century people felt that there was a gradual diminution in the rainfall, and attributed it to the sins of the people, seeing it as a natural consequence of the destruction of the Temple. It is taught in a beraita:

Said R. Eleazar b. Perata (floruit circa 110-135): From the day the Temple was destroyed the rains have become irregular in the world. There is a year which has abundant rains, and there is a year with but little rain. There is a year in which the rains come down in their [proper] season and a year in which they come out of season... (Bavli Ta'anit 19b). In the period of the Second Temple the rains came on time and as a result the crops were of far better a quality. Our Rabbis taught (i.e. a Tannaitic text)... Another interpretation is that “in their season” (Leviticus 26:4) means that the rains will fall only on the eves of Wednesday and Friday. For so we find that in the time of Simeon b. Shetah (floruit circa middle I century B.C.E.) the rains fell on the eves of Wednesday and Friday with the result that wheat [grains] became as [big as] gold dinars. And the Sages preserved samples of them for [future] generations in order to demonstrate how much [loss] is caused by sin, as it is stated, “Your iniquities have turned away these things and your sins have withholden good from you” (Jeremiah 5:25).

From the middle of the second century we have statements which echo these same sentiments. For example, R. Simeon b. Gamliel’s famous lament in Tosefta Sota 15.2 = Yerushalmi Sota 9.14:

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Israel, Ministry of Development-Geological Survey, Bulletin no. 41, Jerusalem, 1967, especially pp. 24-34. On climatological theories of the decline of the Roman Empire, (especially those of Huntington, cited below), see my remarks in JESHO, 1972. I should like to express my extreme gratitude to Dr. Gedalia Gevirtzman (geologist) of Jerusalem for calling my attention and interest to various aspects of palaeoclimatology. (The Amoraic period in Palestine covers c. 200-400 C.E.) This research was supported (in part) by the Research Committee, Bar-Ilan University.

1) מְמֵי. See Krauss, Griechische und Lateinische Lehnwörter im Talmud, Midrasch und Targum (= LW), 2. (Berlin, 1899) p. 410b, s.v., for various interpretations, all of which Löw (in his comments ad loc.) rejects outright as incorrect. See also Additamenta ad Aruch Completum, ed. Krauss, p. 302b, s.v. Jastrow’s explanation in his Dictionary of the Talmud Bavli, Yerushalmi, Midrashic Literature and Targumim (= Dict.) p. 1020a s.v. is incorrect, since this usage for xenium was not known in Tannaitic times, (see, eg. Lewis and Short, p. 2017b, s.v. xenium). For readings, see R. Rabbinovicz, Variae Lectiones in Misschnam et in Talmud Babylonicum (= Var. Lect.) ad loc., p. 108, note 9. Whatever the exact derivation of this word its general meaning is fairly clear: either diminishing, or irregular (as Jastrow suggests). I would suggest tentatively that מְמֵי is to be related to the Greek ξεμα meaning “subject to speculation, doubt hesitation,” etc. See Liddell & Scott1606a, 1608a, s.v. The Hebrew “yod” often replaces the Greek “epsilon”. See my note in Ertei, 2, 1974.