A note on rice cultivation in Mesopotamia and Susiana — In a recent survey of ancient Mesopotamian cultigens W. van Zeist dated the beginnings of rice cultivation in the Tigris-Euphrates valley to the 1st century B.C.[1]. Although in doing so van Zeist cited no sources, it is probable that he was relying on the testimony of Strabo (see below). This note is intended simply to provide a more accurate historical foundation, however modest, for a renewed discussion of rice in the ancient Near East.

With but few exceptions[2] the subject of rice in the ancient Near East has not attracted much attention, yet it is obvious that an accurate understanding of the spatial and chronological distribution of rice is important for the study of Mesopotamian agriculture in later antiquity. Rice cultivation in southeast Asia is attested as early as c. 5000-4500 B.C. at Non Nok Tha in Thailand[3]; 4000 B.C. at Ch'ing-lien-kang, near Shanghai[4]; and perhaps by 2300 B.C. at Lothal in western India[5]. Regardless of whether there were one or more original hearths of rice domestication in east Asia, a sloping chronology seems apparent in the history of rice utilization as we move from southeast Asia, where rice appears earliest, towards India. This chronological slope continues as we move further west, for we find no evidence of rice in greater Mesopotamia until the 1st millennium B.C. The earliest archaeologically attested rice in the region appears to be « a single charred grain of rice… found in a pit datable to period III » at Hasanlu[6]. No further information is available on the precise date of this pit, nor do we know whether the rice was wild or domesticated. Period III is currently dated by the excavator to c. 750-590 B.C.[7]

Neo-Assyrian lexical sources may, according to R. Campbell Thompson and C. Rabin[8], contain references to rice, if the identification of Akk. *kurangu*[9] with rice is correct. The term also appears in at least one letter from Nimrud[10]. The scarcity of references to *kurangu*, however, suggests that rice (if this is indeed rice) was not extensively cultivated in the Neo-Assyrian period[11], and C. Rabin is of the opinion that rice was employed at this time in

medical prescriptions[12], rather than as a staple. Perhaps, like cotton[13] and the wood known in Akk. as *sindû*[14], rice was one of the exotic plants introduced by the Neo-Assyrian rulers from India without, however, gaining any real economic importance until later in Mesopotamian history.

Evidence for rice utilization in Mesopotamia proper during the Achaemenid period is lacking, but it was certainly cultivated in Susiana by the late 4th century B.C. Diodorus (XIX. 13. 6) preserves a precise account of the conflict between Eumenes of Cardia, the head of Alexander's secretariat, and Seleucus, in 318/317 B.C. A complete lack of grain in Susiana made it necessary for Eumenes to give his troops there rice, sesame and dates « which the region produced in abundance ». This makes it not unlikely, but certainly does not prove, that rice was also cultivated in Mesopotamia by this date. C. Rabin is wrong, however, when he claims, citing Strabo (XV.1.18) that « already during Alexander's campaigns Aristobulos saw rice growing in Babylonia ». In fact, as a more careful reading of Strabo reveals, Aristobulus saw rice growing while he was camped with Nearchus « near the Acesines River » in India[15]. After describing this rice, following Aristobulus' account, Strabo goes on to say « and rice grows also in Bactriana and Babylonia and Susis, as also in Lower Syria », but it is not clear whether this piece of information comes from Aristobulus, and dates therefore to the late 4th century B.C.[16], or whether it is an interpolation on Strabo's own part, reflecting conditions in the 1st century B.C.

[1]W. van Zeist, « Lists of Names of Wild and Cultivated Cereals », *BSA* 1 (1984) : 15. Cf. M.P. Charles, « Traditional Crop Husbandry in Southern Iraq 1900-1960 A.D. », *BSA* 5 (1990) : 60. In addition to the conventional abbreviations, the following are used here : *BSA* = Bulletin of Sumerian Agriculture ; and OA = C.L. Reed ed. *The Origins of Agriculture*, The Hague, 1977.

[2]R. Campbell Thompson, « ^{ú}KURANGU and ^{ú}LAL(L)ANGU as possible "rice" and "indigo" in cuneiform », *Iraq* 6 (1939) : 180-183, cf. DAB : 106-107. C. Rabin, « Rice in the Bible », *JSS* 11 (1966) :2-9.

[3]C. Gorman, « A priori Models and Thai Prehistory : A Reconsideration of the Beginnings of Agriculture in Southeastern Asia », *OA* : *349.*

[4]P.-T. Ho, « The Indigenous Origins of Chinese Agriculture », *OA* : 440.

[5]Vishnu-Mittre, « Changing Economy in Ancient India », *OA* : 576, although it is not completely certain that this was cultivated rather than wild rice. Cf. W.A. Fairservis, *The Roots of Ancient India*, New York, 1971 : 307.

[6]M. Tosi, « Hasanlu Project 1974 : Palaeobotanical Survey » *Iran* 13 (1975) : 186. Cf. F. Rahimi-Laridjani, *Die Entwicklung der Bewässerungslandwirtschaft im Iran bis in sasanidisch-frühislamische Zeit*, Wiesbaden, 1988 : 91, 126.

[7]R.H. Dyson, Jr., « Rediscovering Hasanlu », *Expedition* 31/2-3 (1989) : 6.

[8]Cf. n. 2.

[9]CAD K : 556.

[10]D.J. Wiseman and J.V. Kinnier Wilson, « The Nimrud Tablets, 1950 », *Iraq* 13 (1951) : 109, ND 425.

[1]When Campbell Thompson spoke of « good reason for evidence of rice in Mesopotamia more than three hundred years before Alexander », *Iraq* 6 (1939) : 182, he would seem to be enthusiastically giving the few attestations of *kurangu* more weight than is warranted.

[12]Rabin, *JSS* 11 : 4. For the use of rice by Arabs and Turks in medical prescriptions, see A. Dietrich, *Dioscurides Triumphans : ein anonymer arabischer Kommentar (ende 12. Jahrh.n. Chr.) zur Materia medica.* Göttingen : Abh. der Akad. der Wiss. in Göttingen, phil.-hist. Kl., dritte Folge, 173 : 1988 : 246. Strabo, Geog. 15.1.53, mentions a drink made from rice which was consumed in India.

[13]Discussed in detail with earlier bibliography in Potts, *The Arabian Gulf in Antiquity*, vol. 2, Oxford, 1990 : 134.

[14]Cf. the discussion in Potts, « Reflections on the History and Archaeology of Bahrain », *JAOS* 105 (1985) : 701.

[15]Cf. H. Bretzl, *Botanische Untersuchungen des Alexanderzuges*, Leipzig, 1903 : 201-203. A. Forbiger, *Handbuch der alten Geographie aus den Quellen bearbeitet*, Leipzig, 1844 : 488, identified the Acesines with the Chenab, one of the northeastern tributaries of the Indus river.

[16]This was certainly the view of V. Hehn, *Kulturpflanzen und Hausthiere in ihrem Übergang aus Asien nach Griechenland und Italien sowie in das übrige Europa,* Berlin, 1887 : 409, who definitely attributed the statement on rice in Bactriana and Babylonia to Aristobulus, rather than Strabo. This led him to assert, p. 409, « Noch unter der Perserherrschaft und wohl in Folge derselben war also Reiskultur vom Indus bis zum Oxus und Euphrat vorgedrungen. »

D.T. Potts (22-01-1991)
Carsten Niebuhr Institute, Njalsgade 78
2300 Copenhagen S
Danemark