

Weather: Between the Natural and the Unnatural in First Millennium Cuneiform Inscriptions

1. INTRODUCTORY REMARKS¹⁾

The organizer of this colloquium, which I have not, unfortunately, been able to attend in full, has charged me with a discussion of the phenomenon "weather in Ancient Mesopotamian context". The subject is huge, it encompasses everything from ecology through mentality to iconography, but many of its aspects are untreatable, at least for the moment. Both the textual and the iconographic material confronts us more with 'Mesopotamian mentality' than with 'Mesopotamian weather'. The slow reconstruction of ecological conditions in Ancient Mesopotamia will ultimately tell us much about Mesopotamian climate. But that is a future goal. This, of course, does not mean that the ancient Mesopotamians did not observe weather conditions. The astronomical (or rather, still astrological) diaries, a first instalment of which has been published by Hunger, contain systematic observations of weather phenomena, with a specialized, detailed and difficult shorthand vocabulary. This is being studied in Münster by Hecker and Kamminga, and, especially as Hunger has published a synopsis of their results²⁾, it would be unthinkable to encroach on their field. However, in the end the diaries might provide us with real insights into the weather pattern in the Babylon area in the second half of the first millennium BC. The reconstruction of the pattern is made possible by the fact that the observations are dated: they constitute their own series and can be assessed independently, even without reference to contemporary interpretation. There are, furthermore, no signs that the weather observations were supplemented artificially as the astronomical observations in these texts were. But these diaries constitute a special type of text. In general I should like to make three preliminary remarks on texts and weather:

a. *observations*: no pattern can be constructed from undated, isolated observations. No progress is possible beyond the obvious "in winter it snows in the mountains".

b. *systematization*: in omen collections especially, an artificial expansion of observation is found: rain falls in all colours, lightning strikes in a similar manner on all sides etc. I will not concern myself with this type of literature.

c. in many texts the observed is not explained as a *natural* phenomenon, but it is the bearer of a message which can be understood, exploited or manipulated. This does not mean that in general the actual observation is not accurate.

Though we can, perhaps, reconstruct the meaning of natural phenomena for "the Mesopotamian" - whoever he may be - this brings us little nearer to the weather which affected him, nor do depiction and description contribute much to the essential reconstruction of the pattern of Mesopotamian weather. The best we can hope for is a reconstruction of the slow change in the relation between Mesopotamian agricultural society and a generalized picture of Mesopotamian seasonality. The yearly fluctuations which determine actual events are, in general, outside our reach, unless the density of our evidence is so great that a real reconstruction of the actual calendar is possible, comparable to what Parpola has done for the last years of Esarhaddon and the first of Aššurbanipal. The erratic "system" of intercalation makes almost all dates found in the texts approximate in relation to our calendar.

There can be little doubt that in the strictly agrarian ancient Mesopotamian society the rhythm of the agricultural cycle dominated life. That it in its turn was dependent on the natural phenomena is also self-evident. Having been obliged to deal with the Southern agricultural year recently, I had to study a considerable number of texts, leases, documents about payment of rents, court cases etc., in which natural circumstances are hardly ever referred to directly, though they determine every development and every action the texts deal with. Practical documents never state the self-evident, or what conforms to pattern. If we want to study weather in a systematic fashion, a study of the actual delivery

dates of agricultural products in administrative texts is a much better method than trust in the occasional reference to abundant rain in a royal inscription or a letter. The prospects for this type of approach are good, provided that the archives are reconstructed or, when excavated, published completely and not as segment A in museum Y only. Careful comparison of these delivery dates with the pattern of expenditure will be equally instructive.

2. ROYAL INSCRIPTIONS AND THE WEATHER

As the title of the paper promises a treatment of inscriptions, agriculture must be put aside. The Assyrian royal inscriptions constitute an important corpus of texts, which, while it cannot be classified as practical, still contains a considerable amount of information on the functioning of the Assyrian state, especially in the military field. Though it is, from the outset, evident that conclusions do not range further than "in winter it snows in the mountains" I propose to look at the seasonality of Assyrian campaigning, but I will add a small "practical" excursion, in an attempt to make clear that there is a marked difference in mentality between text genres. I would, of course, have preferred to look at Neo-Babylonian inscriptions, as they emanate from the same type of society as the administrative documents referred to earlier. But the Neo-Babylonian royal inscriptions constitute a text corpus resulting from a mentality not contributing to our purposes.

Expectations should be tempered by the realization that actions are described at an elevated level in which weather and similar daily humdrum affairs are not expected to interfere with His Majesty's intentions. Weather is supposed, so is determined by the gods, to be supportive, even if one is lucky on days which the hemerology declares unlucky: 2) *a-ram-mu šá eli* ^{URU}*Up-pu-me âl šarrūti-šú ú-šak-bi-su* 3) *ina* ^{ITI}*kislimi* U₄ 21 KÁM *u₄-ḥul-gál-e U₄-mu lem-nu i-lit-ti a-sak-ki* 4) *ina qul-ti mu-ši a-ram-mu [šú]-a-tú nap-ṭu is-luḥ-u-ma id-du-u* IZI 5) *ina qí-bit* ^d*Marduk šar₄ ilāni*.MEŠ *i-[zi]-qam-ma* ^{TU15}*iltānu ma-nit bēl ilāni*.MEŠ *ṭa-a-bu* 6) EME ^d*Gira mun-na-aḥ-[zi] a-na* ^{URU}*Up-pu-me ú-sa-ḥir-ma*³⁾ etc. "The ramp which I

caused to be constructed against his residence Uppume (in Šupria) on the 21st of Kislev (IX), an unlucky, bad day, the brood of the devil spread naphta on the ramp and set fire to it in the dead of night. On the orders of Marduk king of the gods the favourable north wind of the lord of the gods blew for me. It turned back the tongues of fire to Uppume" (which burnt down and was taken). In practice an accidental natural phenomenon, the blowing of the north, or rather north-western wind, served Assyrian purposes, so it is assigned to the gods.

The reference to the unlucky day is perhaps typical for Esarhaddon, but hemerological considerations must in general not be underestimated in Assyrian tactics. It is a contribution of the irrational which in a certain sense limited the iron grip of the seasons. Accidental, provoked or manipulated omina will have worked in the same way.

If weather conditions bestow additional favours that is only a plus point: on the 8th of Adar, an *eššešu*, so a favourable day, Esarhaddon entered Nineveh after the civil war against his brothers and sat down on the throne. The additional benefit of the blowing of the south wind, that of Ea, suitable for the exercise of kingship is an acknowledged bonus. The selection of an hemerologically suitable day was no doubt the first step, the cooperation of nature was of secondary importance. All references to lucky and unlucky days in the Assyrian royal inscriptions are quotations from the *inbu* series⁵⁾. The provoked or manipulated omina are of course less easily detected.

Yet Esarhaddon provides us with a rare occasion in which adverse weather is mentioned in connection with campaigning: 66) *šal-gu kuš-šu* ^{ITI}*Šabāṭi dan-na-at kušši* (EN.TE.NA) *ul a-dur* "snow and cold of Šebaṭ (Month XI, January-February), the intense winter I did not fear⁶⁾. The situation was exceptional. Esarhaddon had to fight for the throne against his brothers. But the gods encouraged him, which probably means that he had received favourable solicited omina. Campaigning in winter, a result of political circumstances, is sanctioned by divine assent. The words used to describe the situation underline the determination of the pretender. In reality he had no choice.

This contrasts with a passage in Sanherib's prism. When in Elam towards the end of this 7th campaign he ordered his troops to take the road to Madaktu, but 7) ^{ITI}*tam-ḫi-ri* EN.TE.NA *dan-nu e-ru-ba-am-ma* 8) *šá-mu-tum ma-at-tum ú-šá-az-ni-na ŠEG.MEŠ šá ŠEG.MEŠ ú šal-gi na-aḥ-lu na-at-bak KUR-i a-du-ra*⁷⁾ "a severe cold started in Tamḫiri (variants explain that this is Ṭebet, month X, December/January)⁸⁾, it caused much rain, I feared the sleet and the swollen mountain torrents." - So Sanherib went home. A rare confession of failure⁹⁾.

3. A MILITARY SEASON AND "INITIATIVE"

The passages quoted from Esarhaddon and Sanherib indicate that campaigning especially in the mountains¹⁰⁾ during Ṭebēt and Šabaṭ (December-February) was unusual, which is perfectly understandable. Campaigns were either not pursued or they were forced upon those who undertook them as they had to react to pressure exercised upon them. In those "abnormal" circumstances in which the enemy was unwilling to cooperate "the military season" in the calendar of the Assyrian year could not be maintained.

The clearest indications for a "military season" are found in a number of inscriptions from the period in which Assyria freed itself from Aramean pressure and began to expand. Expansion meant loss of initiative, which in its turn meant that the Assyrians had to react and could not impose the scheme which their own calendar made preferable. As soon as the Assyrians became enmeshed in the Babylonian quagmire, fighting became endemic and constant.

Inscriptions ranging from the Broken Obelisk, which is generally assigned to Aššur-bel-kala (1074-1057) to the Kurkh Monolith from the early reign of Shalmaneser III are (occasionally) very precise in giving dates of occurrences in military context, especially for the start of an undertaking. That the luxury of a special military season is connected with 'initiative' is clear from the Broken Obelisk. The text makes it clear, once more, that before all we must have an idea of how the calendar functioned.

The calendar shows a number of peculiarities in that the Babylonian month names are used. They are roughly tied to the seasons through a system of intercalation, whereas the year, or rather the period in which one person served as eponym still seems to follow the traditional Assyrian lunar system, without intercalation. As the name 'Broken Obelisk' indicates, the text is damaged. Yet enough is preserved from column III to show that the Assyrians were in the main reacting continuously to Aramean razzia's (*ḥarrānu's*). The year in which Aššur-ra'im-nišešu was eponym seems to start with Šabaṭ, the XIth month of the Babylonian calendar, so January-February, with an Assyrian attack on Dur-Kurigalzu. But in the same year, that is eponym year, two Aramean razzia's were stopped near the Kašjari mountains in Ajjar (II) and one in Siwan near the Tigris (III), followed by similar incidents in Abu (V) and Elul (VI). In his edition King supplies (III 19) Marcheswan (VIII) for another action, probably because a new eponym, Ilu-iddina is mentioned for Kislev (IX), so month VIII must be the last of the previous year. In terms of the Babylonian calendar the eponym year ran from Kislev to Araḥšamna, and the Aramean raids are registered from Ajjar to Kislimu or April to December. Only the wettest period, December to March is left to the Assyrians, who used it in their turn for attacking their Southern neighbours. We should retain these points for a moment: not only the winter campaign to the south, but also the fact that the nomads were otherwise occupied in this period, or rather could find enough fodder in the steppe and stopped raiding.

4. SYRIA

Only in the 10th century did initiative return to the Assyrians. There is a clear predelection for starting a campaign in the third month, Siwan, May to June: Adad-nirari II: KAH II 84, 91 and 98, Tukulti-Ninurta II, Annals 13, Aššurnāṣirpal II Annals II 51, 86, III 1, 27 and 50, with a shift to Ajjar for the two last campaigns known (III 56, Ajjar 8th) and II 92 (Ajjar 20th)¹¹⁾. A secondary campaigning period in the second half of the year is less well attested: Adad-nirari II (KAH II 83 rev.6) Araḥšamna, month VIII and Tukulti-Ninurta II (Annals 30) Tešrit (VII), each once.

The basic pattern seems to be clear. The ordinary campaign of the 9th century started in the second half of May, later on under Aššurnāširpal II in later April. In general they went to the west, though Aššurnāširpal II mentions for 881 Mazamua, the higher foot hills in the Lower Zab area. By the second half of May, much of the harvest in Assyria might have been over, the rainy season had ended in general, but vegetation serving as fodder was still available. When Aššurnāširpal II in the course of his reign began to prefer Ajar, second half of April or early May for the start of his campaigns, we can understand his motives. Though an earlier date reduced the amount of labour available for harvesting, it increased the possibilities of inflicting damage on enemy harvests and more fodder was available for cavalry and baggage train.

The tendency towards earlier campaigning seems to be confirmed by the few dates from the early reign of Shalmaneser III from the Kurkh Monolith and the Balawat Gates. His later system using *palû*'s only cannot be connected with the calendar. In the 6th *palû* the expedition to the Baliḫ left Nineveh on Ajar 14th according to the Kurkh monolith. In the 9th *palû* the expedition to North Babylonia started on Nisan 20th, early April, again from Nineveh. Expeditions to Babylonia seem, in general, to have left earlier than those to the West: Aššur-bēl-kala's raid on Dur-Kurigalzu took place in Šabat, month XI, as we have seen, and Tukulti-Ninurta II went South along the Tartar (Ann. 41) from 29th Nisan onwards. This indicates that weather/water considerations played their role in Assyrian planning, as is to be expected. Šamši-Adad V (Nimrud Stèle III 71) was late when he left on Siwan 15th, end of May, for Babylon and crossed the Turnat, Diyala *ina milīša* "at high water". But he went through the territories East of the Tigris; "winter expeditions" probably followed the Tartar route.

Shalmaneser III's campaigns can otherwise only be dated indirectly. The tendency of Assyrian Royal inscriptions to use stereotype phrases imposes a need for restraint. Most of Shalmaneser's campaigns went West, so he had to cross the Euphrates. Reports on the 1st, 2nd, 4th, 6th, 25th and on the 28th *palû* when the turtan led the army, remark upon the fact that the river was crossed at high water, *ina mi-li-ša*. If this is accepted literally it would mean crossing in May to early June, which again

suggests Ajjar for the start of the spring campaign. To cross a river at high water is more of an achievement than doing so at low water: only the fact that the phrase is not used for every crossing gives some credence to the idea that it is used for specific cases. The speed and route of the Assyrian army are of course imponderables, but three to four weeks would seem reasonable for an army to cross the Jezira.

5. THE MOUNTAINS

A preference for campaigns in the mountains in autumn (September-October, Tešrit) is not well marked: Assurnaširpal II's second campaign in the year when Aššur-idin was eponym (881), Annals II 33, through the Babite pass and Tukulti-Ninurta II's, Ann. 30, to Kašjari could be mentioned, but Sargon II left for his 8th campaign through Mannajja to Urarṭu in month IV, Du'uzi, June-July. It is clear, however, that some campaigns in the mountains ended late. The Babylonian Chronicle states that Šuprija was conquered by Esarhaddon in Tebet (IV 19) of his eighth year, but the Esarhaddon Chronicle (line 24) mentions Adar 18th¹²⁾. The evidence for a short autumnal campaign in the mountains is not very extensive. Yet the motives would be understandable: the intention in general was not to occupy these regions, but to carry off booty. In this case cattle and especially sheep. They would have started their movement down from the mountains from September onwards, and thus come within Assyrian range. We will see that it was also a suitable moment for delivery of tribute.

6. EGYPT

The Babylonian chronicle might indicate an understandable preference for winter campaigns in Egypt, not so the inscriptions which give little in exact dates during this period: 7th year of Esarhaddon defeat of the Assyrians in Egypt on Adar 5th, 10th year Assyrian army to Egypt in Nisan, 12th year Esarhaddon dies on the road to Egypt on Araḫšamna 10th. (Nov 669). But on the other hand the Assyrian army left in Du'uzi¹³⁾, July, in Aššurbanipal's 2nd

year. In all these matters the degree of initiative is of course very important.

However slight the evidence there seems to exist a vague but understandable pattern, in which certain periods of the year are preferred for certain areas. Winter for Central Babylonia, (if the Tartar route is taken) April-May for Syria, winter for Egypt, autumn for short undertakings in the mountains, with late spring as an alternative in the case of longer expeditions. The dry Tartar route and the desert would have held most water in winter, Syria would be attractive in spring especially if the enemy harvest could be spoilt or taken. In the mountains snow in the passes would be the overriding factor, but that would have disappeared long before the late summer. It explains Sargon's delayed departure in month IV for the 8th campaign. We must return to this later on.

The royal inscription as a text genre does not allow the expression of practical considerations, even though there can be little doubt that ecological factors influenced, or rather determined, the conduct of civil and military affairs in the Assyrian Empire. We can turn to only a few practical texts for support of the obvious.

7. EXCURSION: PRACTICAL TEXTS

Practical texts, e.g. letters, occasionally mention weather conditions in the Eastern mountains. ABL 241¹⁴⁾ deals with the tribute to be delivered in Babylon by a certain Aššur-bēl-ušur, who is either a local potentate or an Assyrian "resident" at the court of such a ruler somewhere in the Median area. The tribute is that of month X (Kanūnu/Ṭebet) but the royal letter ordering delivery arrived only on 3 XI (Šabaṭ). The surprise is not so much that communications were difficult, rather that they were possible at all in January-February. In the previous year (rev.7) a tribute for Babylon had been due or given (? *ni-ti-di-ni*) in month I (March-April) but the king had ordered delivery in VII (September-October). The author of the letter declares that oxen and sheep are available, but that people do not bring them on account of the cold (TA *pa-an ku-ú-ši*) and the rivers (TA *pa-an*

ÍD.MEŠ). The king is exhorted to change the date of delivery to Tešrit (September-October) again - otherwise the sheep will not survive transport. The other letter from the same author, ABL 242, does not mention the period of the year, but complains again about the cold which makes roads impassable for chariots, as a result of which delivery of tribute becomes difficult.

Difficulties regarding horses which had to be present at the "inspection" (*mašartu*), are the subject of a royal order (*abat šarri*) to Bēl-šar-ušur. The gist seems to be that sending the animals in Šabaṭ would mean that they would die from cold, they will be brought in Adar to arrive in Nisan, March-April¹⁵⁾. As many of the horses for the Assyrian cavalry came from the East, weather conditions in the mountains mattered. The horses were, no doubt, being collected for a new campaign. (In Ajjar therefore?)

NL 63, which possibly belongs to 61¹⁶⁾, is written by an Assyrian official who has entered Kalḫu on the 1st of Nisan (about the middle of March). He relates that he is forced to open the roads (cf. 8) *ḫu-la-a-ni ni-pat-ti*) because they are filled with snow. The broken line 11 could suggest that he has been underway since the 13th (or 23rd?) of Šabaṭ (that is over five or six weeks, if the join with NL 61 is confirmed) with horses, some of which have died with the men accompanying them on account of the cold and the swollen rivers.

It was not only in the Assyrian North that animal transports were a constant worry. The Neo Babylonian (so post-Assyrian) letter TCL 9,88, from Uruk warns that cattle should not be moved before Šabaṭ 20th, or their quality will greatly deteriorate. The point is no doubt, not as CAD M/1 p.433L suggests, that warmer weather is to be awaited, but to the contrary, that it must become cooler. The verb is *pašāru* "to make loose", with the probably rather neutral meaning: "to improve".

The as yet anonymous letter ABL 544, possibly from near the Urartian border, states that it is too cold to transfer "saplings"¹⁷⁾ to Dur-Šarrukin (*qu-up-pu qar-ḫu dan^{an}*) before the beginning of the first month (end of March). This is one of the rare occasions we hear something about the practical difficulties

of the Assyrian experiments in transplanting plants and trees from their natural habitat. Too much delay means planting in the dry season, which was of course undesirable. Babylonian tree planting contracts occasionally insist on planting in month XI, before the winter with its rain; in the North the cold is, however, the determining factor.

Assyrian officials and subjects were obliged to report anything that might be of interest. Interest both in the immediate practical sense, but perhaps also for further interpretation.

ABL 112 is a well-known letter by Urad-Sin to the Palace Herald, which was probably forwarded to the central administration. The Cimmerians had invaded Urarṭu from Mannajja, against which the Urarteans were mobilizing (rev.9), which in turn required an Assyrian reaction: 9) *e-mu-qi ú-pa-ḫu-ru* 10) *ma-a i-su-ri* 11) *ki-ma ku-pu-u* 12) *i-di-i-ni* 13) *ma-a ni-za-qu-pu* 14) *ina muḫ-ḫi-šu*: "They gather their forces: must we, as the cold increases, take up a position in front of him (i.e. the king of Urarṭu, Sardur)?" The writer asks for orders, but adduces wintry conditions as a reason for limited reaction only. The same seems to be the case in NL 39, from Dur-Aššur, who uses the cold conditions as a pretext for explaining why he has not written sooner, stating that he has sent out spies (^{LU}*da-a-a-lim*), who will, however, on account of the cold weather, not achieve much. NL 100 uses heavy falls of snow (line 6-7) as an excuse for non-execution of orders, cf CT 53, 158:6-7. In other letters the direct relation between copious rainfall and good prospects for the harvest makes rainfall the subject matter for a report, but here we are definitely approaching the ideological level¹⁸⁾.

The ideological aspect of rain finds a clear expression in the well known letter ABL 2 (=LAS 121, according to Parpola LAS II p.104 from early 666), written by the exorcist Adad-šum-ušur. He mentions "the felicitous era that has arrived", indicated by, amongst other signs, "copious rains and abundant floods". A connection, as also stressed by Parpola, with the golden age claimed in the introductory passage of his prisms to have started with the accession to the throne of Aššurbanipal is obvious. Adad let flow

his rains, Ea let forth his floods, with abundant harvests, increase in flocks and low prices as a result¹⁹⁾. We have, as yet, not the means to verify these claims, but there is a decent possibility that the early years of Aššurbanipal indeed showed an above average rainfall - which was interpreted as a sign of the arrival of a new golden age.

Assyrian ideologists were no less nimble than their later counterparts, we cannot but admire their efforts. LAS 300 + 109 is a letter written by Akkullānu²⁰⁾, another learned member of the circle to which Adad-šum-ušur belonged. It is dated by Parpola to May 1st, 657. Assyria suffered under the onslaught of the Cimmerians in Syria - a fact not so much carefully expurged from the Assyrian annals as passed over in silence - and there was so little rain that the cereal harvest had been an absolute failure. Surely a bad sign. Not to the ingenuous Akkullānu who knew his sources. He has unearthed a report about 500 years old by a certain Ea-ušallim to the Babylonian king Marduk-nadin-aḫḫe (1098-1081) which is given the interpretation that scant rain indicates the personal well-being of the king. This type of blatant manipulation of the meaning of the phenomena is of course completely different from the pious ascription of favourable developments to "the gods of the king": e.g. CT 53, 156: p.9-10 (sufficient water in the river for transport of trees).

If we want to use the Assyrian-Babylonian evidence on weather and related meteorological phenomena we must endeavour to separate real observation from systematization and interpretation. While the practical observation is as a rule trustworthy, the interpretation and the systematization tell us more about mentality than reality. Useful observations can be used only when they are dated, that makes it difficult to get further than "water is wet", "in winter it snows", as I hope to have made clear.

But we must also recognize from the increased knowledge of ecological circumstances that we are dealing with a Mesopotamia that looked very different from what we observe now.

At least down to Samsu-iluna conifers were cultivated in the South. In the days of Shalmaneser III the last elephant lived in the Euphrates valley, though, as we learned a few days ago, on the Khabur the native poplar was so scarce, that, incredible though it may seem, conifers had to be imported to roof even simple dwellings.

NOTES

1) As the density of the text material is not sufficient, in general, for a reconstruction of the intercalary system, all dates are, of course, approximate. For the later reign of Esarhaddon and the first years of Aššurbanipal cf. Parpola *LAS* 2 (AOAT 5/2 Neukirchen-Vluyn (1983)) p. 428-320.

2) A.J.Sachs, H.Hunger, *Astronomical diaries and related texts from Babylonia I*, Wien 1988, esp. pp. 27-34.

3) R. Borger, *Esarhaddon*, AfO Beiheft 9 (1956) p. 104, "Gottes-brief" II 1-7.

4) *ibid* p. 45 Epis. 2 II 87 (cf II 20).

5) G. van Driel, *Cult of Assur* (Assen, 1969) note 38 on p. 156-7.

6) Borger, *Esarhaddon* p. 44, Epis 2, 66.

7) Sanherib, Luckenbill OIP 2 Chicago 1924, p. 41 Prism V 6-11.

8) Sanherib Nebi Yunus Slab = IR 43 lines 42-44; Walters Slab, Grayson AfO 20 (1963), p. 91 obv 39 and VS I 77 obv 23'.

9) The passage has been treated recently by P. Naster, *Acta Orientalia Belgica V, Humour, Travail et Science en Orient*, p. 31-37. He discusses the question of the exact month in detail.

10) Esarhaddon uses the obsolete term *Ḫanigalbat* for the region NW of the Assyrian nuclear area. The term is rather vague and does not necessarily indicate a really mountainous territory.

11) The only time Adadnirari II mentions Nisan (KAH II 84:94) we deal with the Assyrian response to an attack and under Tukulti-Ninurta II (Annals 41) a minor force under the turtan is sent once. Abu, 5th month, is mentioned once, but that was in his first full year.

12) Parpola *LAS* 2 (note 1) p. 428 indicates November-December.

13) Parpola *LAS* 2 p. 430.

- 14) cf. N. Postgate, *Taxation*, Studies Pohl ser. maior 3 Rome (1974) p. 266 W.
- 15) ABL 302. It is difficult to differentiate the real order from the contents of an earlier letter to which is referred.
- 16) cf. K. Deller, Or NS 35 (1966) p. 187.
- 17) ^{GIS}ziqqi; CAD M/1 p. 404. During the meeting of the colloquium J.D. Hawkins suggested that the author of the letter was using obstructive tactics. A cold spell in winter with night temperatures well below freezing point for the Mosul area cannot be excluded, cf. *Geographical Handbook, Iraq and the Persian Gulf* (B.R. 524), 1944 ed., p. 172-3 and p. 620.
- 18) "Practical" letters are NL 565 reporting incessant rain for several days, ABL 128, dealing with rain in Media and ABL 157, near Arrapha. In ABL 231 Sanherib reports high water levels to his father Sargon.
- 19) e.g. Prism A I 41-51.
- 20) Parpola LAS II p. 307 f.