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THE LOST LANGUAGE OF ANCIENT BABYLONIAN PLANTS: FROM MYTH TO MEDICINE

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SUMMARY

The Sumerian myth of Enki and Ninḫursaga, which conveys Enki's metaphorical nature as power behind the irrigation of the Mesopotamian marshlands, contains a passage that brings together plants, pains and deities. The raison d'être for the choice of these eight plants has so far escaped scholars. In analysing the evidence for the plants according to cuneiform literary and medical sources the present contribution offers a discussion of their nature and possible connection with the god Enki providing thus an explanation for their choice and shedding light on the storyteller's motivation for including the episode on plants in the myth.

Although Ancient Babylonians did not produce mythological narrations or other literary traditions about plants comparable to the Classical world, references to the plant kingdom indeed entered the cuneiform belles-lettres. A rather bizarre passage that brings together plants, pains and deities and which will be discussed in the present contribution is included in the Sumerian myth about the god of wisdom and sweet waters, Enki, and Ninhursag, a mother goddess. The narration is also known as "Sumerian Epic of Paradise" as coined by its first editor Stephen Langdon in 1915[1]. The Sumerologist S.N. Kramer observed that it "is one of the more interesting, intricate,

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and imaginative myths in the Sumerian repertoire, but also one of the most enigmatic and frustrating"[2]. The narration, as Th. Jacobsen suggested, might have served as entertainment for visitors and merchants coming to the Sumerian royal court from the island of Dilmun (modern Bahrain), the place where the "Sumerian paradise" was located[3]. Although elusively to the modern reader, it seems indeed to have been rather humorous, full of allusions and wordplays.

After Enki, personified as river, has made pregnant the goddess Nintur a series of sexual and incestuous conquests reaching down five generations follows, being the last victim the spider-goddess Uttu, Enki's great-granddaughter. At Uttu's wailing Ninhursag, the actual wife of Enki, intervenes in order to set an end to Enki's philandering. She removes the semen from Uttu's body and pricks it into the earth. Eight plants grow from it. Hidden in the marshes, Enki together with Isimu, his vizier, observes the goddess and wonders about the plants since he has never seen them before. He agrees that Isimu would give them a name, cut them off and give them to him to eat so that he would "determine the nature of the plants and know them in their hearts"[4]. When Ninhursag sees that Enki has eaten her plants she lays a curse on him, which has fatal consequences for the god. Enki falls sick: the plants seem not to have lost their original nature as semen and have made him pregnant. Unable to give birth, Enki suffers unbearable pains in eight parts of his body. The myth ends with Ninhursag's intervention curing the god by giving birth in his place to four male and four female deities, each coming originally from a different part of Enki's body. The last one is Ensak, who is to become patron deity of Dilmun.

Scholars agree that this episode should be rather seen as a jeu d'esprit of the storyteller than a religious etiological explanation. The word and sound plays between the terms for the eight body parts and the names of the deities have been long recognised, also that the names of the deities cannot be associated with their respective functions.

The first of Enki's body parts to be affected is the brainpan (Sumerian *ugu-dili*$_2$) which Ninhursag turns into the god ^{d}*Ab-u*$_2$, resuming the vowel "u". ^{d}*Ab-u*$_2$ was considered "Lord or Father Plant"; as can be seen no connection between the actual seat of pain and the responsibility of the deity can be drawn. The pain Enki feels on "the top of his hair" (Sumerian *pa-siki*) becomes the goddess ^{d}*Nin-siki-la*, literally "Lady of the hair" who is said to be the patron deity of Magan (modern Oman). The pains in his nose (Sumerian *kiri*$_3$) are converted into the goddess ^{d}*Nin-kiri*$_3$*-u*$_3$*-tu*, literally "Lady born from a nose", which is a sound play on her correct name ^{d}*Nin-giri*$_{16}$*-da*, a minor and less known healing goddess. The other body parts are *ka* "mouth", *zi* "throat", *a*$_2$ "arm", *ti* "rib", and *zag* "side" producing the goddess ^{d}*Nin-ka-si*, "Lady who fills the mouth", actually the Sumerian beer goddess, the goddesses ^{d}*Na-zi*, ^{d}*A*$_2$*-zi-mu*$_2$*-a* and ^{d}*Nin-ti*, and the god ^{d}*En-sa*$_6$*-ak*.

While the phonetic association between the body parts and the names of the deities can be still appreciated by the modern reader, the raison d'être for the choice of the eight plants that cause Enki pains has escaped scholars. S.N. Kramer stated that "there are several motifs that are especially enigmatic and tantalizing. Thus it would be quite interesting to know why of all the plants known to him, the author chose the particular eight plants for his tale"[5]. It does thus not come as a surprise that the handful of studies about this episode just mention the correspondences with the plant kingdom and the seat of pain but do not attempt an interpretation[6]. So far only Th. Jacobsen put forward an idea about the meaning of "getting to know plants by heart". "Tentatively", he wrote, "we should suggest that one does not eat what one does not know. However, assigning a name means assigning an identity, namely the one already implied in the name. The names that Isimu suggests may at the time have been free invention on his part, but even so, each one will already have carried a meaning which, since they are names of actual plants, will have been known

to the listeners"[7]. In her 2008 contribution, D. Katz suggests that the episode should be understood as "a significant deviation from the traditional social norms"[8] since Enki does not only make pregnant his daughter, granddaughter and great-granddaughter but also would eat his own semen grown into plants.
In what follows, an alternative interpretation is put forward taking into account the nature of the plants regardless of their exact identification and discussing the image of Enki not so much as divine "organizer of the universe, master magician, helper of last resort, ardent tippler, incestuous abuser," but rather as "god of the sweet waters"[9].

The Plants in the myth of Enki and Ninhursag

The episode about the plants in the Sumerian myth just follows the scene of Ninhursag cleansing Enki's semen from the body of Uttu. The text displays the typical poetic style of Sumerian literature, viz. repetition[10]:

"She (Ninhursag) let shrubbery grow,
she let sweet plant grow,
she let [green plant$^{?}$][11] grow,
she let [*ašk*i sedge] grow,
she let thorny [*atutu* shrub] grow,
she let [*taltal* plant] grow,
she let […] grow,
she let *amḫaru* plant grow,
and Enki could see her from the marshes, he could see her.

He said to Isimu, his vizier:
'Plants! What about their nature […]?
What's this one, what's that one?'
Isimu, his vizier, answered him:
'My lord, this is shrubbery.'
He cut it off and gave it to him to eat.
'My lord, this is sweet plant.'

He tore it out and gave it to him to eat.
'My lord, this is green plant[?].'
He cut it off and gave it to him to eat.
'My lord, this is *ašk*i sedge.'
He tore it out and gave it to him to eat.
'My lord, this is *atutu* shrub.'
He cut it off and gave it to him to eat.
'My lord, this is *taltal* plant.'
He tore it out and gave it to him to eat.
'My lord, this is […].'
He cut it off and gave it to him to eat.
'My lord, this is *amḫaru* plant.'
He tore it out and gave it to him to eat.
And Enki determined the nature of the plants, having known them in their hearts."

Shrubbery

The first plant, Sumerian *u₂-giš*, is usually translated literally as "tree plant", "plant du bois" or "Holzpflanze" reflecting our modern and incomplete knowledge of the Sumerian terminology[12]. Though the term is attested in administrative texts together with other woods[13] that are used for construction work, no further sources about its use or appearance are preserved. The fact that "shrubbery" was a rather common commodity indicates that it was a well-known plant or shrub.

Sweet plant or Honey plant

"Honey plant" is a literal translation of the Sumerian term *u₂-lal₃* which can also be rendered "sweet plant"[14]. There are no indications what plant or plants are designated by this descriptive name[15]. But there is evidence about its use: sweet plant or honey plant was known as favourite food of fishes, namely of carps, and as plants where carps would hide in the water from their natural enemies. In addition, sweet plant seemed to have been associated with fertility and the image of carps fattened with this plant entered the Sumerian royal sexual literature[16].

A number of Sumerian literary works that evoke the typical landscape of Southern Mesopotamia with its marshes and broad river beds includes a reference to carps and sweet plants. In the myth *Enki and the World Order* in which we see the god as organizer of divine society Enki's own home, i.e. his temple and abode, the "sweet water ocean" abzu, is described as being inhabited by carps (Sumerian *suḫur*)[17] that dart among the sweet plants and by outstanding carps (Sumerian *suḫur-maš*) that would fight among themselves for being the most princely fish[18]. Also the narration about *Enki's Journey* associates the god with carps. In one passage the rhapsodist praises the abode that Enki has built for himself in his patron city Eridu: "When Enki erected Eridu, he had the artfully built mountain (i.e. temple) float over the water, his shrine he had made spread out into the cane-brake. In its lush garden, which carries rich fruit, the birds are breeding, the *suḫur* carps are playing among the sweet plants, and the *eštub* carps are darting among the small reeds. When Enki rises, the fish rise before him like a wave"[19].

Another deity connected with the water world of the marshes is the goddess Nanše, mistress of fish, fishermen, and birds. In the humorous piece *Home of the Fish* apparently the goddess herself invites a whole range of fish to live in her newly built house, possibly a fish trap, so that they would be protected[20]: "The one with beautiful barbels who eats sweet plant, my big *suḫur* carp, may you enter with all my other fish![21]" Also in the tale of the *Heron and the Turtle*, in which both animals dispute over their socio-economic importance, we find the *suḫur* carp living among sweet plants[22].

In a hymn to the Sumerian king Ur-Namma, the ruler is presented as digger of canals that the god Enki fills with his sweet waters so that Ur-Namma can let grow sweet plant and fatten carps: "I (Ur-Namma) have the sweet plant grow in my canal so that the *suḫur* carps grow fat. In the city of Ur grows the sweet plant so that the *suḫur* carps grow fat"[23]. As S. Tinney has shown, the image of the

king as canal-digger in this hymn can be read on multiple levels not only as a description of the king's activities to provide water for his city. "The act of canal-digging", as he points out "must be taken as metaphor for sexual intercourse"[24]. Also Enki pouring sweet waters can be taken as an allusion to sexual practices in view of a passage from the myth *Enki and the World Order*. Here the god masturbates and fills the rivers Euphrates and Tigris with his semen, i.e. with water[25]. However, even more intricate is the image of sweet plant for fattening *suḫur* carps when interpreted against the background of the scenery that is described in a Sumerian birth incantation associating the plant with semen and fertility. It is the only reference in which sweet plant is not used as fish food. The text was recited to ease birth pains. It uses the stock metaphor of man and woman as bull and cow. The first lines read as follows: "The breeding bull has mounted the cow in the pen, the pure sheepfold. He has poured (his) true semen in order to create humankind in her womb. Once the semen is poured into (her) womb, it congeals giving the man a son. As for the woman, she ate sweet plant and (her) belly became bigger. She ate her beloved sweet plant and (her) belly became bigger"[26].

As this overview shows, *u₂-lal₃* was considered the favourite food plant of carps; the plant grows in the sweet water of Enki and is as such an aquatic plant; and sweet plant is associated with fertility and pregnancy.

Green plant?

The reading of the plant name is not beyond doubt; like Th. Jacobsen in his translation of the myth I have followed the one suggested by S.N. Kramer in his editio princeps[27]. The line in which the plant name is attested is not well enough preserved today so that the reading cannot be confirmed[28]. It seems that the term is rather generic, similar to the first plant mentioned, "shrubbery".

Aški sedge

The Sumerian term is written with a rather complex sign whose writing and reading varies widely[29]. The name *aški* denotes a kind of rush, reed or sedge and was used as medicinal plant[30]. As for the indication of the plant, no definite information can be given because of the nature of the Sumerian medical recipes in which the plant is attested. The extant prescriptions were brought together in one cuneiform tablet that gives a list of ingredients and the application forms of medicaments such as cataplasms, potions and salves, but not the affliction. The *aški* plant appears twice together with other ingredients in the preparation of a cataplasm and a salve respectively, and once in a kind of preamble to the preparation of a salve. What has to be done with the plant in this preamble is not clear at all. The action is described with the Sumerian verb *du*$_3$ and was meant "for the hands and feet of the patient". The editor of this difficult text, M. Civil, suggested comparing this action to the later 1st millennium B.C.E. practice, as attested in Akkadian medical texts, of preparing a wad made of reeds that was used against snakebites[31]. Perhaps one could presume from this information that at least one of the medications was meant to treat snakebites. The names for reed that are used to prepare the wad against snakebites are Akkadian *elpetu*, perhaps halfa grass, and Akkadian *urbatu*. The latter is the Akkadian equivalent of Sumerian *aški*. In the Akkadian medical literature *urbatu* was indeed considered one of the principal ingredients for the treatment of snakebites; it was used for wads and its root could be eaten in case of snakebites[32].

Though an exact identification of Sumerian *aški* cannot be given, it is clear that the term refers to an aquatic plant[33]. Another possible reading of the sign is Sumerian *gug*$_4$ which is equated with the Akkadian term *šišnu*, a kind of reed. According to *Uruanna*, a cuneiform dictionary that brings together the known terms for medicinal drugs, *šišnu* is explained as looking like the *urbatu* sedge but having three stems[34]. The *Uruanna* dictionary provides still another equa-

tion. Occasionally, parts of a plant receive a different name. This is also the case with the seed of *urbatu* sedge for which the *Uruanna* dictionary gives the name *kungu*. The term *kungu*, in turn, has been identified with the Greek plant name *gongas*[35] that appears in Greek Historian Berossos' description of the Mesopotamian marshlands[36]. As he states in his *Babyloniaka*, "roots are eaten that grow in the marshes. These are called *gongae*. These roots have the same properties as barley"[37]. Indeed, the above quoted Akkadian medical text confirms the consumption of the roots of the *urbatu* plant. The waters are precisely the habitat where, according to Berossos, the creature Oannes, half man, half fish, came from in order to bring knowledge to the Babylonians. In the cuneiform literature of the first millennium B.C.E. Oannes was regarded as one of the seven wise men or *Mischwesen* intimately associated with the god of magic and wisdom, Enki (Ea in the Akkadian tradition). Though the *Babyloniaka* of Berossos was composed (in 281 B.C.E), that is 1500 years later than the extant copies of the Sumerian myth *Enki and Ninhursag*, there was a strong tradition that associated aquatic plants with the realm of Enki.

Atutu plant

The plant, written and read *atutu* in both Sumerian and Akkadian, is rarely attested. *Atutu* plant must have been a kind of thorn bush in view of the equation with the Akkadian term *baltu* that is a prickly plant[38]. Also the cognates in other Semitic languages point to a thorny shrub, cf. Hebrew *ʾāṭād*, Mandaic *ʾāṭāṭā*, Syriac *ʾaṭdā* or Arabic *ʾaṭad*. The Arabic term is explained with another Arabic plant name, viz. *ʿausseğ*. E. Löw, whose discussion focuses on the biblical Hebrew term, suggested that the plant should be identified with European boxthorn (Lycium Europaeum L.)[39]. According to Moses Maimonides' *Glossary of Drug Names*, "*ʿawsağ* is the Arabic name of lycium or African Jasmine (Lycium Afrum L., Solanaceae) and

other plants of this family"[40]. Löw adds an observation about the habitat of the plant *'awseğ̃i* which is taken from A. Musil's account of his travels through Jordan (Musil's *Arabia Petraea*). He writes the following: "An den Ufern der Flußbetten großer Wâdi wachsen verschiedene, meist stachelige Büsche und Sträucher, in denen sich kleine Hasen, Wüstenhühner und etliche Vogelarten aufhalten. Am häufigsten begegnet man verschiedenen Arten des 'Awseğ̃i"[41]. Taking into account the aquatic nature of sweet plant and of sedge, an habitat like that of the *'awsağ̃* or *'ausseğ̃* plant would well agree with the environmental context of the Sumerian myth. In this regard I would propose that *atutu* was a thorny shrub possibly belonging to the Lycium family that grew on riverbanks.

Taltal plant

Here the main problem is the correct reading of the plant term since the line in which it occurs is partially broken on the cuneiform clay tablet. Only the last sign *tal₂* of the word is preserved. There are three Sumerian plant names referring to different plants that end in *tal₂*, viz. *taltal*, *aštaltal,* and *urtaltal*; all are medicinal plants. The restoration of the Sumerian term *taltal* goes back to S.N. Kramer's 1945 edition of the myth[42]. Another suggestion is to restore [*aš-tal₂*]-*tal₂*[43], which is a different plant and is discarded here on contextual grounds (see further). The *taltal* plant is equated with Akkadian *šimru*, a term that has cognates in other Semitic languages such as Arabic *šimār* or *šamār* which is fennel[44]. The episode of the plants in *Enki and Ninhursag* might throw light on an entry in the cuneiform dictionary of medicinal plants, *Uruanna* despite of the difference in time and space of both works (they are separated by 600 years and the three cuneiform copies of *Enki and Ninhursag* come from Southern Mesopotamia, while *Uruanna* is clearly a learned scribal product from Northern Mesopotamia). Fennel is a well-known medicinal plant in Antiquity; suffice to refer to Dioscorides' *De mate-*

ria medica III.70 on *Foeniculum vulgare*[45]. D. Hooper as well as A. Al-Rawi and H.L. Chakravarty list fennel in their respective studies on the use of plants in Iraqi traditional medicine[46]. It is therefore surprising that the term *šimru* does not seem to be attested in the extant Akkadian medical recipes. So far the only reference to *šimru* apparently comes from the medicinal drug dictionary *Uruanna*. Here the plant receives another Akkadian name, *urānu* – a term that occurs frequently in Akkadian recipe texts. The *Uruanna* dictionary is structured in two columns in which corresponding terms for plants are listed line by line. For *šimru* we find the following entry[47]:

"Plant šimru: plant taltal
Plant sunuš: plant taltal
Plant 'fish plant': plant taltal in the Akkadian language
Fish plant: urānu"

The lines should be understood as follows:

– the Akkadian plant šimru is the equivalent of the Sumerian plant taltal
– also the name sunuš (of unknown origin) is the equivalent of the Sumerian plant taltal
– the fish plant is the name of taltal in Akkadian (viz. Babylonian dialect)
– fish plant is also called in Akkadian urānu.

The first information relevant for the discussion is the fact that the name 'fish plant' was considered to be more common in the Babylonian dialect, viz. Standard Babylonian in which the corpus of recipe texts is written. The use of a different name in this type of text would well explain the almost complete absence of *šimru* in the cuneiform medical literature. The fact that *šimru* occurs occasionally in letters from the North, namely from Nuzi would fit well into this separation of genre and dialect[48]. Another Akkadian equation of Sumerian *taltal* is *arantu* which must be the term S.N. Kramer had in mind in his translation "caper(?)-plant"[49]. Both Akkadian equa-

tions are possible. One can just but conjecture about the motivation for the alternative name 'fish plant' of *urānu*. Interestingly, not only *urānu* was considered a 'plant for fish' but also the plants *arantu* and *alamû*[50], the latter being the Akkadian name of the Sumerian *amḫaru* plant, which is the last plant that Enki consumes before he falls sick. E. Ebeling surmised at the time that Akkadian *šimru* or Sumerian *taltal* identified with fennel could have been used because of its flavour as bait for fish[51]. Indeed, in the relevant specialist literature on fishing one finds occasional reference to the use of fennel oil or the advice to feed fishing-worms with fennel four days before using them as bait[52]. Like to sweet plant, *taltal* plant was intimately associated with one of the main inhabitants of Enki's "sweet water ocean", namely fish.

Amḫaru plant

As mentioned above, the Akkadian equivalent of the Sumerian *amḫaru* plant, namely *alamû*, was also known as 'fish plant' indicating thus a close relationship with wetland and fish. On etymological grounds the Akkadian term *alamû* can be connected with Syriac *ḫalamthā* and Hebrew *ḫallāmūth*, a plant that according to E. Löw belongs to the species of the mucilaginous *Anchusa*[53]. Another possibility would be to identify it, as proposed by R. Campbell Thompson, with a plant of the Umbelliferae family to which also fennel belongs[54]. Akkadian *alamû* was used as medicinal plant[55].

According to the above discussion of four out of the eight plants mentioned in the episode of *Enki and Ninhursag*, namely sweet plant, *aški* sedge, *taltal* plant and *amḫaru* plant are aquatic plants or were associated with fish. If the identification of *atutu* plant as belonging to the Lycium family and growing on riverbeds is correct, then five plants of the list could be related to a wetland or river habitat. The attribution of the plants to Enki's marshland and the interpretation of the plants as fish food or fish bait have a direct impact on the understanding of the mythological scene. The storyteller displays

accordingly humorous wit: He not only depicts the god of the "sweet waters" and creator of plants such as the "sweet plant" as ignorant of the aquatic flora but he also seems to play with the association of fish, namely carps, with Enki himself. Especially the *suḫur-maš* carp is linked to the god. It seems to have had two natures, that of a real fish and that of the "Carp-Goat" monster. The latter is attested iconographically since the end of the 3rd millennium B.C.E. and is depicted together with water flowing from vases thus relating the creature with the god Enki[56]. The "Carp-Goat" was not the only mythical creature that inhabited Enki's waters. In the later Akkadian tradition there are seven sages (Akkadian *apkallū*) of whom it is said that they are the "pure *purādu* fish (= carps)" and that "they are endowed like Ea [= Enki], their lord, with sublime wisdom"[57]. The term *purādu* is the Akkadian equivalent of Sumerian *suḫur*. Another Akkadian tradition attributes two different natures to the group of seven sages and distinguishes between bird-sages and fish-sages. The fish-sages or fish-*apkallū* are said to be creatures of "Enki's sweet water ocean (…) which were grown in the river"[58].

It seems that the rhapsodist played not only on the imaginative world of Enki as "Lord of the carps" but also on his aquatic nature. The fact that Enki eats from plants (like fish would do) and that the god lingers somewhere in the marshes when he observes his wife Ninḫursaga planting the plants points to his aquatic nature. The episode would then resume the beginning of the series of his philanderings: as the description of the rape of his first victim, Nintur, shows, he approaches the goddess disguised as a river[59]. I would suggest that these perceptions of associating Enki with carps, carps or the carp-goat monster with the sages of Enki, and Enki with 'sweet water' have been the basis for the rhapsodist's jesting.

The scenery described in the Sumerian narrations with rivers and lagoons full of carps and other fish must have been authentic not mythical. The great portraitist of the life of the Marsh Arabs, W. Thesiger,

describes one of the lakes in the Central Marshes, the Hawr Umm al Binni, literally the marshes "Mother of the carps", as follows: "A fishing camp of the Berbera. When I was there in Oct. [1951] the Berbera with their nets and the tribesmen with their fish spears were taking 40,000 fish, of up to 5lbs weight each, a day out of Umm al Binni, a lagoon in the marshes 3 miles by 2 miles in area. They had been averaging this number for 10 days before I arrived there"[60]. As the Sumerologist J. Black remarks "half a million large fish in a week and a half must indeed seem like evidence of divine fertility"[61]. The Finnish Assyriologist A. Salonen has taken the trouble in 1970 to reconstruct the fish population in Iraq according to studies up to then. He concludes in his survey that most of the fish stock, about 70%, belongs to the family of the *Cyprinidae* (carp fish) among which are three species predominant, namely Mesopotamic and Yellowfin barbell (*Mesopotamichthys sharpeyi* and *Barbus xanthopterus*), both endemic to the Euphrates-Tigris river system, and the Shirbot (*Barbus gryphus*)[62]. There exists a study about the alimentation of these three fish species according to which the Mesopotamic barbell and the Shirbot are strictly herbivorous feeding on algae and higher plants. Shirbot also feeds on fallen ripe fruits and cereal seeds that are growing along the riverbanks. The Yellowfin barbell, by contrast, is omnivorous and feeds also on frogs, molluscs and smaller fishes[63]. The observation that some fish also feed on seeds and fruits, when available, would well explain the appearance of *atutu* plant, "green plant" and "shrubbery" in the passage of *Enki and Ninḫursaga*.

As has been stated, some of the plants are also known for their medicinal properties. *Aški* plant is already attested in Sumerian recipes dating to the end of the 3rd millennium B.C.E.[64] and *taltal* and *amḫaru* appear in later Akkadian medical texts[65]. There is, however, no connection between the use of these plants and the diseases they treat or the seat of the pains in Enki's body. According to the Akkadian equivalent *urbatu* the principal use of *aški* sedge might have been against snakebites.

The plant had caused Enki pains in his mouth. Also the medicinal uses of the Akkadian plants *urānu* (Sumerian *taltal*) and *alamû* (Sumerian *amḫaru*) cannot be linked to Enki's pains. The *alamû* plant was prescribed basically in case of stiff extremities[66]. In *Enki and Ninḫursaga* the consumption of it led to pains in the sides. Though the spectrum of *urānu* is broader than those of the other plants being employed in case of fever, pains in the hips and various skin afflictions, none would hint to pains in the arms which is the effect the plant has on Enki's body. The *arantu* plant, which is another Akkadian equivalent of Sumerian *taltal*, was principally used in cases of diarrhoea[67]. Again, no line can be drawn to pains in the side of Enki's body. The lack of correspondences might not surprise since the storyteller would have needed to dispose of specialist knowledge that was only available to healing experts.

Only few Sumerian literary works have been handed down to the first millennium such as the poem about the *Exploits of the god Ninurta*[68]. None of the narrations about Enki was transmitted beyond the beginning of the 2nd millennium B.C.E. It is always possible to assume that notions still existed as does G. Komorózcy suggesting that the 3rd century B.C.E. Berossos could have known the myths about Enki, but it cannot be corroborated by any direct documentation. However, the association of Enki, or Ea in the Akkadian tradition with fishes remained. A few passages from divinatory texts clearly express this connection. We learn that "if the storm god Adad shouts 17 times, then Ea will cause the fish to die"[69] or "if the storm god Adad thunders (…), Ea will wreak carnage among the fish"[70] or else "if a flood comes in the month of Abu (= July/August), Ea will wreak carnage among the fish"[71]. As already mentioned, some of the Akkadian equivalents of the Sumerian plants Enki consumes were called or explained as "fish plants". This information comes again from a divinatory text which adds some explanatory notes: "If *urānu* plant appears in a field in the middle of a town, then this field cannot be fallowed, it cannot be planted. *Urānu* plant or *arantu* plant or *alamû* plant (are)

fish plants"[72]. It seems as if the plant description of *arantu* would provide an explanation of this ominous occurrence. According to the Akkadian treatise "On the appearance of the medicinal plant" *arantu* looks like the plant 'dog's tongue' and grows in flooded fields[73]. It is likely to assume then that the field could not be tilled because it was flooded. The description confirms that *arantu* like *urānu* and *alamû* grew in wetlands. In view of the interpretation of the eight plants in *Enki and Ninḫursaga* as related to fishes I would suggest that the 1st millennium B.C.E. designation of some of these plants as "fish food" or "fish plants" hint at a millennial practice of fishing – assuming that the correspondence between plant name and the actual plant it refers to remained stable over more than 1000 years.

The Sumerian storyteller was unaware or ignorant of the medicinal use of *aški* sedge (Akkadian *urbatu*), *taltal* plant (Akkadian *arantu* and *urānu*) and of *amḫaru* (Akkadian *alamû*). And the Akkadian medical prescriptions, in turn, do not provide any indication about an association of these plants with the god Enki or Ea. If the interpretation of at least some of the Sumerian medical recipes as recommendations for snakebites is correct, the persistence of the employment of *aški* sedge or Akkadian *urbatu* from the end of the 3rd to the middle of the 1st millennium B.C.E. in case of snakebites is indeed remarkable. Also the use of a rather distinctive plant product of *aški* and *urbatu*, namely its ashes, survived more than two millennia, though indication and application form are different in the Sumerian and Akkadian medical traditions: one Sumerian recipe mentions ashes of *aški* sedge as one ingredient among others in a salve[74]. And the ashes of *urbatu* sedge appear as simple drug in two Akkadian prescriptions treating the bleeding of pregnant women[75]. Despite this difference in application the persistence of the tradition to use the ashes of sedge is remarkable.

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3. Jacobsen Th, The Harps that Once … Sumerian Poetry in Translation. New Haven – London: Yale University Press; 1987. p. 181.
4. See ll. 198 and 217 according to the text edition of Attinger P, Enki et Ninḫursaga. Zeitschrift für Assyriologie 1984;74:24-25.
5. Kramer SN, Maier J, Myths of Enki … ref. 2, p. 22.
6. See Dickson K, Enki and the Embodied World: Journal of the American Oriental Society 2005;125, and Katz D, Enki and Ninḫursaga, Part Two: The Story of Enki and Ninḫursaga. Bibliotheca Orientalis 2008;65:329-332.
7. Jacobsen Th, The Harps that Once … ref. 3, p. 184.
8. Katz D, Enki and Ninḫursaga, Part Two: The Story of Enki and Ninḫursaga. Bibliotheca Orientalis 2008; p. 332.
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10. This and the following English translation of Sumerian passages of myths are the author's. The myth has received various treatments: Kramer S N, Maier J, Myths of Enki … ref. 2, pp. 22-30, and Jacobsen Th, The Harps that Once … ref. 3, pp. 185-204 offer a rather poetic translation into English. A modern critical text edition is Attinger P, Enki et Ninḫursaga. Zeitschrift für Assyriologie 1984;74:1-52. For a revised version made available by Attinger P, in 2011 see www.unibe.ch/unibe/portal/fak_historisch/dga/.../1_1_1.pdf. Quoted are ll. 188-217 according to this up-dated edition.
11. Square brackets are used to indicate a broken text passage.
12. E.g. Jacobsen Th, The Harps that Once … ref. 3, p. 200 (l. 230'), Attinger P, Enki et Ninḫursaga. Zeitschrift für Assyriologie 1984;74:25 (l. 201), Römer W H Ph, Enki, Ninsikila und Ninchursaga. In: Kaiser O, Texte aus der Umwelt des Alten Testaments III/3. Gütersloh: Gütersloher Verlagshaus; 1993. p. 380 (l. 201).

13. See e.g. Sallaberger W, Der kultische Kalender der Ur III-Zeit, Teil 1. Berlin – New York: Walter de Gruyter; 1993. pp. 77-78.
14. See e.g. Salonen A, Die Fischerei im alten Mesopotamien. Helsinki: Suomalainen tiedeakatemia; 1970. p. 24. The translation of Salonen is more adequate since attestations for honey are younger. The term *lal₃* usually refers to sweet syrup probably made of dates; see Volk K, Imkerei im alten Mesopotamien. In: Klengel H, Renger J, Landwirtschaft im Alten Orient: Ausgewählte Vorträge der XLI. Rencontre Assyriologique Internationale, Berlin: Reimer; 1999. pp. 279-290.
15. Katz D, Enki and Ninḫursaga, Part Two … ref. 8, p. 330, gives erroneously as Akkadian equivalent the name *ašqulālu*. Though this name refers to a medicinal plant too, it is written with a completely different cuneiform sign, namely Sumerian *la₂* or *lal*.
16. Tinney S, Ur-Namma the Canal-Digger: Context, Continuity and Change in Sumerian Literature. Journal of Cuneiform Studies 1999;51:31-54.
17. The fish has been identified with the "giant carp" (Arab. *bizz*) by Salonen A, Die Fischerei im alten Mesopotamien… ref. 14, p. 216; see also Civil M, The Home of the Fish. A new Sumerian Literary Composition. Iraq 1961;23:169-170.
18. See the edition of Black J A, The Electronic Text Corpus of Sumerian Literature (ETCSL), www.etcsl.orient.ox.ac.uk 1.1.3, ll. 97 and 163-164.
19. See Al-Fouadi A-H A, Enki's Journey to Nippur: The Journeys of the Gods. Philadelphia: ProQuest Dissertations and Theses; 1969. p. 73, 81 ll. 73-80.
20. For the critical text edition see Civil M, The Home of the Fish. A new Sumerian Literary Composition. Iraq 1961;23:154-175; Thomsen M L, 'The Home of the Fish': A New Interpretation. Journal of Cuneiform Studies 1975;27:197-200 doubts the attribution to the goddess Nanše and favours a fisherman who invites the fish in order to trap them. For the general humorous character of the composition see Vanstiphout H L J, An Essay on "The Home of the Fish". In: Quaegebeur J, Studio Paulo Naster oblata 2. Leuven: Uitgeverij Peeters; 1982. pp. 311-319.
21. See Civil M, The Home of the Fish. A new Sumerian Literary Composition. ref. 17, p. 160-161 ll. 69-70.
22. Black J A, ETCSL… ref. 18, 5.9.2, ll. 27, 75.
23. Tinney S, Ur-Namma the Canal-Digger… ref. 16, p. 36.
24. Tinney S, Ur-Namma the Canal-Digger… ref. 16, p. 35.
25. See Cooper J S, Enki's Member… ref. 9.
26. For the text edition see Van Dijk J J A, Incantations accompagnant la naissance de l'homme. Orientalia NS, 1975;44:53-54 ll. 2-8.

27. Note, however, the remark of Kramer S N, Enki and Ninhursag. A Sumerian "Paradise" Myth. Bulletin of the American Schools of Oriental Research, Supplementary Studies 1945;1:29, "both the restoration and meaning are quite doubtful".
28. According to the photo P260875 in http://cdli.ucla.edu only a few wedges of the first and second cuneiform sign of the plant term are preserved. The traces could well belong to other signs than *sar-ra*. Note that Attinger P in his 2011 up-dated text edition Enki et Ninḫursaga prefers not to read the plant term.
29. See the discussion of Civil M, Feeding Dumuzi's Sheep: The Lexicon as Source of Literary Inspiration. In: Rochberg-Halton F, Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner. New Haven: American Oriental Society; 1987. pp. 49-50. Another possible equation is with the Akkadian term *meburku* "alfa grass" which is based on lexical texts, see Römer W H Ph, Enki, Ninsikila und Ninchursaga, p. 380 note 191a).
30. See the Sumerian medical recipe text published by Civil M, Prescriptions médicales sumériennes. Revue d'assyriologie 1960;54:61-62 ll. 27,101,138.
31. Civil M, Prescriptions médicales sumériennes… ref. 30, p. 62 ll. 100-101 and see the commentary on p. 69.
32. Quoted in CAD Q, p. 58 s.v. *qalāpu* 1.a): "If a snake has bitten a man, peel the root of *urbatu*, he shall eat it and recovers."
33. On etymological grounds Akkadian *urbatu* is linked to Syriac *'arbānā* for which see Löw E, Aramäische Pflanzennamen. Leipzig: Verlag von Wilhelm Engelmann; 1881, (photo-reprint Hildesheim – New York, Georg Olms, 1973), pp. 54-56 no. 30 Cyperus; and see Holma H, Kleine Beiträge zum assyrischen Lexikon. Helsinki: Suomalaisen tiedeakatemian; 1913. pp. 89-92. For further discussions of reeds and rushes in cuneiform texts and their possible identification see Postgate J N, Palm-trees, reeds and rushes in Iraq ancient and modern. In: Barrelet M T, L'archéologie de l'Iraq. Paris: CNRS; 1980. pp. 99-110.
34. See Cad S, p. 303 s.v. *sippu* A 4.b).
35. See Thompson RC, A Dictionary of Assyrian Botany. London: The British Academy; 1949. p. 12 and Komoróczy G, Berosos and the Mesopotamian Literature. Acta Antiqua Academica Scientiarum Hungarica 1973;21:142.
36. For a possible phonological relationship between the Sumerian and Akkadian term see Civil M, Studies in Early Dynastic Lexicography I. Oriens Antiquus 1982;21:16-17.
37. Quoted is the English translation of De Breucker G, Berossos of Babylon (680). In: Worthington I, Brill's New Jacoby, http://dx.doi.org/10.1163/1873-5363_bnj_a680 (access: 08/03/2016), T1.

38. So according to the cuneiform composition *Uruanna,* which is a dictionary for medicinal plants that includes vernacular names and brings together plants of similar growth and habitat; for a description see Böck B, Shaping Texts and Texts Genres: On the Drug Lore of Babylonian Practitioners of Medicine. Aula Orientalis 2015;33:22-25. For *baltu* see CAD B, p. 66, discussion section.
39. Löw E, Die Flora der Juden Vol. III Pedaliaceae - Zygophyllaceae. Wien – Leipzig: 1924, (photo-reprint Hildesheim, Georg Olms, 1967). pp. 361-363.
40. See Rosner F, Moses Maimonides' Glossary of Drug Names, translated from Max Meyerhof's French edition. Philadelphia: The American Philosophical Society; 1979. p. 197.
41. Musil A, Arabia Petraea. Wien: A Holder; 1907-1908. p. 14.
42. Kramer S N, Enki and Ninhursag… ref. 27, p. 18 l. 211. The reading is followed by Jacobsen Th, The Harps that Once … ref. 3, p. 201 in his translation.
43. On suggestion of Civil M Rosengarten Y, Trois aspects de la pensée sumérienne. Paris: Boccard; 1971. p. 27 restores *[u₂-aš-tal₂]-tal₂* which is then followed by Attinger P, Enki et Ninḫursaga. Römer W H Ph, Enki, Ninsikila und Ninchursaga. Katz D, Enki and Ninḫursaga. Part Two, ref. 8; and Black J A, ETCSL… ref. 18, 1.1.3.
44. See Löw E, Die Flora der Juden. Vol. III, p. 460-465 and Thompson R C, A Dictionary of Assyrian Botany. London: The British Academy; 1949. p. 61-64. Jacobsen Th, The Harps that Once … ref. 3, p. 201 renders the Sumerian plant term in his translation with "fennel (?)".
45. See López Eire A and Cortés Gabaudan F, Estudios y Traducción Dioscórides. Dioscórides interactivo, http://dioscorides.usal.es/p2.php?numero=470 (access: 27/10/2017). For Middle Eastern uses of fennel see Lev E, Amar Z, Practical Materia Medica of the Medieval Eastern Mediterranean According to the Cairo Genizah. Leiden – Boston: Brill; 2008. p. 166-168.
46. Al-Rawi A, Chakravarty H, Medicinal Plants of Iraq. Baghdad: Government Press; 1964. p. 45 and Hooper D, Useful Plants and Drugs of Iran and Iraq. Chicago: Field Museum of Natural History; 1937. pp. 119-120.
47. The editio princeps of the dictionary is being prepared by the present author. Quoted are ll. 220-223 of the first chapter. Note that the section on *šimru* is longer but not quoted here; see for the lines quoted CAD Š/III, p. 8 s.v. *šimru* a).
48. For references see CAD Š/III, p. 9 s.v. *šimru* b).
49. Kramer S N, Enki and Ninhursag … ref. 27 p. 5 and p. 29. Though Kramer does not give the Akkadian equivalent in his study, he refers to the identification of the Akkadian plant name with *Capparis spinosa* suggested by

Meissner B, Beiträge zum assyrischen Wörterbuch II. Chicago: Chicago University Press; 1932. p.12. For the cuneiform texts that give the equation see CAD A/II, p. 231b lexical section and AHW, p. 64b.

50. For the cuneiform commentary of tablet 54-55 of *Šumma ālu* see Rm. 122 rev. 4, published by Langdon S, Assyrian Grammatical Texts. Revue d'assyriologie 1916;13:4. Note also the cuneiform commentary to a medical text in which *urānu* plant is explained as fish plant; for the edition see Geller M J, Ancient Babylonian Medicine. Theory and Practice. Chichester: Wiley-Blackwell; 2010. p. 169, 173 l. 26.
51. Ebeling E, Fenchel. In: Ebeling E, Weidner E, Reallexikon der Assyriologie III/1. Berlin: Walter de Gruyter; 1957. p. 40.
52. See e.g. Anonymous, The Sportsman's Dictionary. London: Noble; 1800. p. 40.
53. Löw E, Die Flora der Juden Vol. I Kryptogamae. Acanthaceae – Graminaceae. Wien – Leipzig, 1928, (photo-reprint Hildesheim, Georg Olms, 1967), p. 292-296.
54. Thompson R C, A Dictionary of Assyrian Botany. London: The British Academy; 1949. p. 69.
55. For the use of the plant see Böck B, Gedanken zu dem Drogen-Inventar aus Assur – KADP 36 (VAT 8903). In: Maul S, Assur-Forschungen 2. Wiesbaden: Harrassowitz; in press.
56. Wiggerman FAM, Mesopotamian Protective Spirits: The Ritual Texts. Groningen: Styxx; 1992. p. 184.
57. So in the narration about the plague god Erra for which see Cagni L, L'epopea de Erra. Roma: Istituto di studi del Vicino Oriente; 1969. p. 76-77 l. 62. For further studies about the tradition of the seven sages see Borger R, The Incantation Series Bīt Mēseri and Enoch's Ascension to Heaven. In: Hess R S, Tsumura DT, I Studied Inscriptions From Before the Flood. Winona Lake: Eisenbrauns; 1994. pp. 224-232; and Galter HD, Ša lām abūbi. Die Zeit vor der großen Flut in der mesopotamischen Überlieferung. In: Rollinger R, Von Sumer bis Homer. Festschrift für Manfred Schretter zum 60. Geburtstag am 25. Februar 2004. Münster: Ugarit-Verlag; 2005. pp. 267-301.
58. Wiggerman F A M, Mesopotamian Protective Spirits … ref. 56, p. 76.
59. See Jacobsen Th, The Harps that Once … ref. 3, p. 191.
60. Quoted by Black J, The Sumerians in Their Landscape. In: Abusch T, Riches Hidden in Secret Places. Ancient Near Eastern Studies in Memory of Thorkild Jacobsen. Winona Lake: Eisenbrauns; 2002. p. 49. Nowadays the *Umm al Binni* is dried up; see the report of Partow H, The Mesopotamian Marshlands: Demise of an Ecosystem. Nairobi: UNEP; 2001, p. 29.

61. Black J, The Sumerians in Their Landscape. In: Abusch T, Riches Hidden in Secret Places. Ancient Near Eastern Studies in Memory of Thorkild Jacobsen. Winona Lake: Eisenbrauns; 2002. p. 49.
62. Salonen A, Die Fischerei im alten Mesopotamien… ref. 14, pp. 15-16.
63. See Al-Hamed M I, On the Morphology of the Alimentary Tract of Three Cyprinid Fishes of Iraq. Bulletin of the Iraq Natural History Museum 1965;3:1-25, quoted by Salonen A, Die Fischerei im alten Mesopotamien… ref. 14, pp. 15-16.
64. See Civil M, Prescriptions médicales sumériennes… ref. 30, p. 62 l. 101, 138 (read a-gugx).
65. For references to the Akkadian equivalent of Sumerian *taltal* plant (written *tal₂-tal₂*), viz. *urānu*, in medical recipes see CAD U and W, p. 207 s.v. *urânu* c) 1̓, 2'. For references to the Akkadian equivalent of Sumerian *amḫaru* plant, viz. *alamû*, in medical recipes see CAD A/II, p. 333b.
66. See Böck B, Gedanken zu dem Drogen-Inventar aus Assur… ref. 55.
67. Quoted in CAD Š/III, p. 102 s.v. šīqu B b).
68. For the text edition see Van Dijk J J A, Lugal Ud Me-Lám-Bi Nir-Gál. Leiden: Brill; 1983.
69. Gehlken E, Weather Omens of Enūma Anu Enlil. Leiden – Boston: Brill; 2012. p. 44 l. 18'.
70. Gehlken E, Weather Omens of Enūma Anu Enlil… ref. 69, p. 93 l. 22'.
71. Gadd C J, Cuneiform Texts 39. London: Harrison and Sons; 1926. pl. LXI l. 71.
72. Langdon S, Assyrian Grammatical Texts. Revue d'assyriologie 1916;4:1-4.
73. For the text passage in Akkadian see Stadhouders H, The Pharmacopoeial Handbook Šammu šikinsu – An Edition. Le Journal des Médecines 2011;18:36, col. iv: 3.
74. Civil M, Prescriptions médicales sumériennes… ref. 30, p. 62 l. 138.
75. See the references in CAD U and W, p. 212, s.v. *urbatu* b).

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