

Akkadian *turru* (*ṭurru* B) “corner angle”, and the walls of Babylon

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This article (a) examines the Akkadian word *turru*, sometimes *ṭurru*, in architectural contexts and finds it to designate an angle at the intersection of two walls. In the light of this discovery the article goes on (b) to elucidate passages of Nebuchadnezzar II's inscriptions that describe his construction of the defences of Babylon on either side of the Iṣtar Gate, and (c) to consider other instances of *turru*, from which it emerges (d) that the meaning “corner angle” is not confined to architectural contexts, and (e) that *biṭ turri*, a technical term in damming, probably has nothing to do with *turru* “corner angle”.

The word *turru* first appeared in an architectural context with the publication of Nebuchadnezzar II's cylinder I R 52 no. 3 (Rawlinson/Norris 1861 pl. 52) but no consensus has yet been reached on what it means. The Akkadisches Handwörterbuch places architectural *turru* under *ṭurru(m)*, *turru(m)* II, “Band; Knoten” section 7, “B. an Mauern” (AHw., 1397). It is difficult to understand exactly what von Soden had in mind by “Band an Mauern”, and most have remained at a loss as to how to translate it (e.g. Maul 1994, 377 l. 21 “die *turrū* der Zimmer”). The latest volume of the Assyrian Dictionary explains *ṭurru* B (*turru*) as an “architectural feature, perhaps a courtyard or enclosure” (CAD T 165). This is more specific an identification than that provided by AHw., but is it right?

It is still the case that the word occurs most prominently in building inscriptions of Nebuchadnezzar II, who refers to the construction of sections of Babylon's defences that are defined as stretching (a) *ina tu-úr-ri elī* “at the upper *t*.” of the Iṣtar Gate, and (b) *adi tu-úr-ri šaplī* “as far as the lower *t*.” of Nēmetti-Ellil, the outer wall (passages quoted below). An old guess was that *turru* in these contexts meant “tower” but, in a careful study of the passages in question, Albrecht Goetze (1946, 77) rebutted that and suggested instead that *turru* meant “sector (of a wall)”, which made good sense in those specific contexts. But CAD T does not follow suit. It cites a passage of a cylinder inscription of Nabonidus as apparently describing Imgur-Enlil, the inner wall of Babylon, as *ṭu-ur-ru rēštā* (PBS 15, 80 i 22), and translates this phrase as “pre-eminent enclosure”. The application of the word to a city wall was clearly the grounds for supposing that *ṭurru* B means a courtyard or enclosure, for the circuit of a

wall encloses space. However, Legrain's copy of the cylinder in question reads *du-ur-ru* UŠ.20.TA.A (1926 pl. 33 i 22), which he himself understood to mean "20 UŠ in length" (1926, 47), so that by reading *ṭurru rēštâ* CAD T has emended two signs without informing its readers.

Legrain was right not to emend the second word to *rēštâ*. In 1991 Farouk Al-Rawi published a better-written duplicate of Nabonidus's cylinder, in which the phrase is written *ku-du-ur-ru* UŠ.20.TA.A (Al-Rawi 1991, 5 no. 5 i 22). The following year the passage in question was quoted in my *Babylonian Topographical Texts*, where the phrase was translated "a boundary of 20 gîš" (George 1992, 348). On p. 135 of the same book the phrase joined other metrological evidence in the discussion of the length of Babylon's wall according to the ancient sources (20 gîš = 1200 [*nindanu*], about 7200 m). Nabonidus's supposed *du-ur-ru rēštâ* is a combination of ancient lipography and modern emendation, and should be deleted from the dictionary.

Other evidence has also been overlooked. The synonym list *Malku* III contains a revealing passage on *turru*:

tu-ur-ru = *za-mu-ú*
tu-ur-ru = *tu-ur* LÚ
tu-ur-ru = *qar-nu* LÚ
tu-ur-ru = *sip-pi*

Malku III 128–131 from SpTU 3, 120 // LTBA 2, 1 xi
 87–89

The two middle entries are not architectural, but in ll. 128 and 131 *turru* is explained as respectively *zamû* "exterior corner" and *sippu* "door-jamb". That *turru* (*ṭurru*) has to do with corners is explicit in scholia that are quoted in CAD. An extispicy commentary explains that [SU]R *ṭu-ur-ru* SUR *túb-qu* "SUR = *ṭurru*, SUR = corner" (CT 31, 10: 5). A commentary on EAE VII informs us that *šaḫāt*(SU) *ṭur-ru* : *túb-qí* "the inside angle of the *ṭurru* = the corner" (SpTU 5, 264 rev. 8–9), in the context of the astronomical expression *ṭurri tarbāši* "t. of the sheepfold" (CAD s.v. *ṭurru* C). The connection with doorways is found in a bilingual lamentation also quoted by CAD, where *suḥ* // *turru* is paired with *du.b.lá* // *dublû* (SBH 92b No. 50a rev. 24–25); *du.b.lá* is the pilaster-like projection that is a feature of temple walls and gateways (George 1995, 186).

The evidence just cited is enough to establish that architectural *turru* signifies a place where a wall turns around an angle (*šaḫātu*) to form a corner (*tubqu*). This is where half-bricks are used to ensure a perfect join between the two stretches. The etymology of the word then becomes

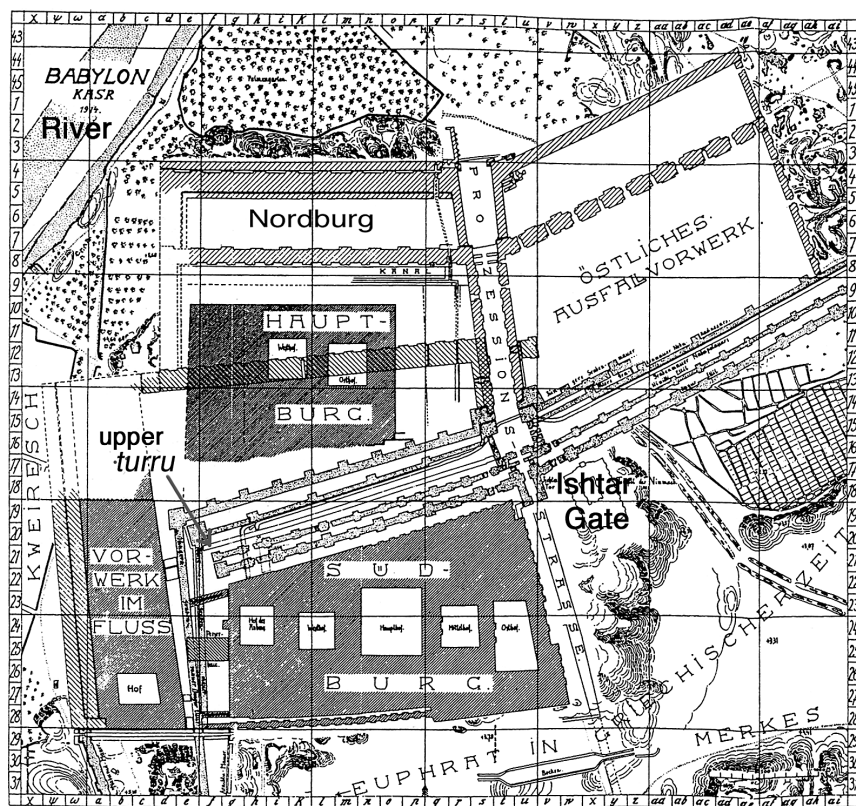


Fig. 1. The citadel of Babylon, adapted from Koldewey 1931 pl. 1

clear: like *turru* A it is a loanword from Sumerian *dur* “bond, junction, knot”. AHw’s single entry for *turru* (*turru*), covering CAD’s three lexemes *turru* A–C, is thus a more elegant piece of lexicography. The derivation of the word from Sumerian *dur* explains the texts’ vacillation between *turru* and *turru* (cf. *dub.sar* > *tupšarru* : *tupšarru* etc.).

How does this new understanding of architectural *turru* affect our interpretation of Nebuchadnezzar II’s inscriptions? There are three passages that use the word, all of which concern his work on the city’s defences near the Iṣtar Gate, which have been thoroughly explored by excavation (fig. 1). Their chronological sequence was worked out by Goetze (1946, 75–78), who correlated their text with the plentiful archaeological evidence for Nebuchadnezzar’s successive improvements to Babylon’s defences.

(a)¹² *ni-ši-ir-ti* É.SAG.ÍL ù KÁ.DINGIR.RA^{ki} *aš-te-²-e-ma* ¹³ *i-na tu-úr-ri e-li-i*
ša abul(KÁ.GAL) ¹⁴ *iš-ta-ar* ¹⁴ *ištu kišād*(GÚ) ¹⁴ *puratti*(BURANUN) *a-di mi-*
iḫ-ra-at abulli(KÁ.GAL) ¹⁵ *i-ta-a-at āli*(URU)^{ki} *a-na ki-da-a-nim* ¹⁶ *ḫa-al-ši*
ra-bi-tim ¹⁷ *i-na kupri*(ESIR.È.A) ù *agurri*(SIG₄.AL.ÜR.RA) *ab-ni-ma*

I R 52 no. 3 = Langdon (1912) Nbk no. 7 ii 12–17

I strove to protect Esangil and Babylon and so, at the upper corner (*turru*) of the Ištar Gate, from the bank of the Euphrates to a point level with the gate, adjacent to the city on the outside (of the wall) I constructed a large fortress in bitumen and baked brick.

As Goetze (1946, 77) saw, this passage refers to a fortification that defended the old palace (Südburg) on the west and north, and was thus shaped like an inverted L. The part north of the city wall, between the river and the Ištar Gate, was later redeveloped as a palatial residence, the “main citadel” (Hauptburg). Goetze interpreted the phrases that describe the extent of the construction to signify the stretch of wall between the river and the gate, and so translated *turri elī* as the “upper sector (of wall)”. Now that *turru* is seen to mean “corner angle” the passage is better understood to contain a general location (ii 13) and a specific location (ii 14). The “upper *turru*” of the Ištar Gate was the angle in the city’s defences *near* the Ištar Gate, where the city wall met the riverside fortifications. The more detailed description gives the specific extent of the new building in terms of the existing topography, from the river to the gate.

The use of “upper” meaning “upstream”, and the identification of sections of city wall by the name of nearby gates, also occur in Nabopolassar’s cylinder inscription recording his work on the eastern half of Babylon’s wall. There the wall’s northern terminus is described as *kišād* ¹⁴ *a-ra-aḫ-tim šid-di e-li-i ša abul* ¹⁴ *ištar* “the bank of the Araḫtu (= Euphrates), the upper stretch (of wall) where the Ištar Gate is” and its southern terminus as *kišād* ¹⁴ *a-ra-aḫ-tim šid-di ša-ap-li-i ša abul* ¹⁴ *uraš* “the bank of the Araḫtu, the lower stretch where the Uraš Gate is” (Al-Rawi 1985, 10 ii 33–35). Note Nabopolassar’s use of *šiddu*, not *turru*, to denote a section of wall.

(b) ²¹ *i-nu-mi-šu ma-aš-ša-ar-ti* KÁ.DINGIR.RA^{ki} *du-un-nu-nim áš-te-²-ma*¹ ²² *3 me 1+šu am-ma-at qá-qá-ri i-ta-a-at ni-mi-it-ti-dēn-líl* ²³ *ša-*
¹ *al-ḫe¹-e* KÁ.DINGIR.RA^{ki} *a-na ki-da-a-[nim]* ²⁴ *iš-tu kišād*(GÚ) ¹⁴ *pu-*
¹ *ratti*(BURANUN) *a-di si-¹ip-pi šu-me-lu¹ ša abul*(KÁ.GAL) ¹⁴ *iš-ta-ar* ²⁵ *2*
¹ *ka-a-ri [d]a-nu₄-tim ¹i¹-na ku-up-ri ù a-gur-ri* ²⁶ *dūra*(BĀD) *ša-da-ni-iš*

ab-ni-m[a] ²⁷ *i-na bé-e-ri-šu-nu pí-ti-iq a-gur-ri e-ep-ti-iq-m[a]* ²⁸ *i-na re-e-ši-šu ku-um-mu ra-ba-^ra¹* ²⁹ *a-na šu-ba-at šar-ru-ti-ia* ³⁰ *i-na ku-up-ri ù a-gur-ri ša-qí-iš e-pú-uš-ma* ³¹ *it-ti ekal(É.GAL) qé-re-^reb¹ āli(URU)^{ki}* ³² *ú-ra¹-ad-di-m[a]* ³³ *ú-ša-pa-a šu-ba-at b[é]-e-lu-ti* ³⁴ *aš-ni-ma iš-tu ^rsi-ip¹-[pi i]-mi-it-ti ša abul(KÁ.GAL) ^diš-ta-ar* ³⁵ *a-di tu-úr-ri ša-ap-li-i ša ni-mi-it-ti-^den-líl ša ti-ib ^{im}šadī(KUR.RA)* ³⁶ *3 me 1+šu am-ma-at pu-ú-tim iš-tu ni-mi-^rit¹-ti-^den-líl a-na ki-da-a-ni[m]* ³⁷ *dūra(BÀD) da¹-num¹ i-na ku-up-ri ù a-gur-ri ša-^rda-ni¹-[iš ab-ni-ma]* ³⁸ *ma-aš-ša-ar-tim na-ak-li-iš ú-[d]a-an-ni-[in-ma]* ³⁹ *āl(URU)^{ki} KÁ.DINGIR.RA^{ki}* ⁴⁰ *a-na ni-ši-ir-tim āš-[kun]*

Koldewey (1902, 9) ii 21–38, cf. Langdon (1912, 188) Nbk no. 21

At that time I strove to strengthen the defences of Babylon and so, for 360 cubits of ground alongside Nēmetti-Ellil, the rampart of Babylon, on the outside, from the bank of the Euphrates to the left-hand door-jamb of the Ištar Gate, I constructed in bitumen and baked brick two mighty embankments, a defensive wall like a mountain, fashioned between them a structure of baked brick, and built on top of it, in bitumen and baked brick, a great palace to be my royal residence. I added it to the palace inside the city and so made manifest a seat of power. Furthermore, from the right-hand door-jamb of the Ištar Gate towards the lower corner (*turru*) of Nēmetti-Ellil in the east, for 360 cubits of the (wall's) short side, from Nēmetti-Ellil on the outside, [I constructed] in bitumen and baked brick a mighty wall like a mountain, [and so] skilfully strengthened the defences and made the city of Babylon secure.

Nēmetti-Ellil was the name given to the outer wall (Akk. *šalḫû*) of the city's double inner defences. Robert Koldewey (1902, 7) already had no difficulty in seeing that the first part of this passage (ll. 21–32) referred to the palace he called the Hauptburg, which adjoined the old palace of Nabopolassar (Südburg) on the opposite side of the city wall and was the only monumental building at Babylon raised high on a baked-brick terrace. Goetze (1946, 77–78) added the insight that the remaining lines (33–38) referred to a stretch of the eastern city wall east of the Ištar Gate and thus adjoining what Koldewey called the Östliches Vorwerk “eastern outwork”. In his understanding the “lower *turru*” of Nēmetti-Enlil was the stretch of wall that extended east of the outwork, beyond the point where his construction finished, and he translated it as the “lower sector”. However, the “lower *turru*” now has to be an angle on the circuit of the wall below the upper *turru*. In this context it will presumably be the

next corner along, between the Ištar Gate and the Marduk Gate. This corner is certainly to the east and, while it lay on a latitude marginally north of the “upper *turru*”, it can be understood as “lower” in the sense that it was further along a wall that began at the “upper *turru*” and eventually returned to the river downstream of the city. The eastern outwork did not extend anything like as far as this corner, so the preposition *adi* cannot in this context signify “up to, as far as” but instead means, exceptionally, “towards”.

(c) ²¹ *i-nu-mi-šu ni-ši-i[r-ti]* ¹É¹.SAG.ÍL ù TIN.TIR^{ki} *aš-te-²e-ma* ²² *i-ta-a-at ni-mi-it-ti-^den-líl ša-al-^{he}-e* KÁ.DINGIR.RA^{ki} ²³ [*i*]š-tu *kišād*(GÚ)
^{id}*puratti*(BURANUN) *a-di tu-úr-ri ša-ap-li-i* ²⁴ [*š*]a *ni-mi-it-ti-^den-líl ša ti-ib*
^{im}*šadi*(KUR.RA) ²⁵ 3 *me* 35 *ammat*(KÜŠ) *qá-qá-ri ul-tu mu-úh ni-mi-it-ti-^den-líl a-na ki-da-a-nim* ²⁶ [1]-en ¹ka¹-a-ri 32 *agurrāti*(SIG₄.AL.ÜR.RA)
²⁷ [*š*]a-na-a ka-a-ri 23 *agurrāti*(SIG₄.AL.ÜR.RA) ²⁸ [2 *k*]a-a-ri *da-nu₄-tim*
¹-en *ma-aḥ-ri ša-ni-i* ²⁹ [*i*]-na *kupri*(ESIR.È.A) ù *agurri*(SIG₄.AL.ÜR.RA)
ab-ni-ma

CTS 6 = Goetze (1946, 67) ii 21–29

At that time I strove to protect Esangil and Babylon and so, parallel with Nēmetti-Ellil, the rampart of Babylon, from the bank of the Euphrates towards the lower corner (*turru*) of Nēmetti-Ellil in the east, for 335 cubits of ground from the face of Nēmetti-Ellil on the outside, I constructed in bitumen and baked brick one embankment of 32 bricks’ (thickness, and) a second embankment of 23 bricks’ (thickness): [two] mighty embankments, one in front of the other.

The inscription goes on to report that the space between the two walls was packed with baked brick, the same technique employed in passage (b). In this way it served as a high platform for a *kummu gigunnāti rabâ* “a large residential suite on terraces”, a description which has led some to think, very plausibly, of the legendary Hanging Gardens (e.g. Wiseman 1985, 57). Goetze deduced that this passage describes what is known from the excavations, that later in his reign Nebuchadnezzar enlarged on their north sides both the Hauptburg (by adding the Nordburg) and the eastern outwork. The “lower *turru*” in this passage is the same angle of the city wall as that cited in passage (b) to define the location of the initial construction of these buildings.

In addition to those passages already dealt with, there are five other citations collected in CAD T under *turru* B. In one, the Old Babylonian literary composition about Narām-Sîn of Ešnunna, the clause *raksū turrūšu*

occurs in the context of constructing a temple (Lambert 1973, 362 l. 47; Frayne 1982, 512). It can be translated “its corner sections were joined”, meaning the angles where two walls met were finished. A second citation, an Old Babylonian bilingual list, confirms the connection of *turru* with walls found in Nebuchadnezzar’s inscriptions: RI-bàd-da = *tù-ri du-ri-im* “angle of a city wall” (Krebernik 2004, 230 i 14), where the Sumerian should probably be understood as da1 bàd-da “transverse section of a city wall”. A third attestation is the apotropaic ritual edited by Stefan Maul (1994, 376 l. 21), where *turri bit amēli tusarraq* can be translated “you sprinkle the corners of the man’s house” with a mixture of lye, gypsum and myrrh. The *turri pī* is part of the face in a diagnostic text (STT 89: 154, on which see Stol 1993, 95). This is without a doubt the “corner of the mouth”, where the lips join; in the cited text the symptom can be restored very plausibly as “[saliva] flows (*illak*) from the corner of his mouth”. The meaning “corner angle” of *turru* is thus not restricted to architectural contexts.

The remaining attestation of *turru* B cited by CAD is more difficult: it is the phrase *bīt turri*, literally “house of *t.s*”, in a letter of Bahdi-Lim, who was governor of the province of Mari in the reign of Zimri-Lim and responsible for repairing breaches in the Habur irrigation. On one occasion he reports of his preparations as follows (ARM 6, 12: 11–12): É *tu-ur-ri ku-un ra-ki-is* ^{giš} *šu-rum na-ki-im* “the *bīt turri* is fixed and secure, there is a good stock of reed-bundles”. In his recent translation of this letter Jean-Marie Durand renders the phrase *bīt turri* as “coffrage” (1998, 635 no. 823, superseding Durand 1990, 135 fn. 124). To this reference must be added the same phrase in Abiešuḥ’s oracle question about damming the Tigris with reeds and earth (CTN 4, 62 iv 18, 25: É *tu-ur-ri*; see now Lambert 2007, 56). This newly available source describes the technique of damming that employed *bīt turri* in considerable detail. As I see it, the practice was to place a series of the things in the water like coffer dams, filling them with earth bonded and faced with bundles of reed (*šūru*), starting from one side of the watercourse and then closing the gap from the opposite bank. The combination of earth and reed bundles in agricultural earthworks is well documented in the Ur III period (Civil 1994, 121–122). Lambert (2007, 150) understands É *tu-ur-ri* differently, as a weather gate that directed the river into an irrigation channel.

What is the literal meaning of this *bīt turri*? It is difficult to accept that such a structure could be referred to by a phrase that literally meant “house/chamber of corner angles”. There is an alternative. The lexical text *Urra* VIII records that another word written variously *turru* and *turru* (CAD *turru* A “twine”) sometimes refers to things made of reed,

including objects of “plaited” or “knotted” reed (see esp. *Urra* VIII 180: *gi.gilim* = *tur-ri*, 185: *gi.dur* = MIN). This *turru* is no doubt also a loanword from Sumerian *dur*. Perhaps the *bit turri* were huge open frames made of stiff reed bundles.¹ Then *bit turri* might literally mean “enclosed space made of plaited reeds”, which fits better the idea of a coffer. In that case it has no semantic relationship with *turru* “corner angle”, and belongs in a different lexicographical file.

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¹ The lack of mimation in Bahdi-Lim’s letter indicates that *turri* is plural. No connection can then be made with Sum. *giš.gi₄.gi₄* “barrage” through *gi₄* = *turru* “to return” pace Lambert (2007, 150), who translates *bit turri* as “house of turning”. AHw. 946 s. v. *rakāsum* G 11 cross-references the passage in Bahdi-Lim’s letter to *turru*, but explains *bit tu-ur-ri* neither at *turru* I “gewendet” nor at *turru* II (= *turru*) “Band, Knoten”.

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