## 3 On the Rules for the Royal Game of Ur

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In Babylon, on 3 November, $177-176$ Bc, the Babylonian scribe Itti-Marduk-balāṭu completed the careful writing of a most unusual cuneiform ${ }^{\mathrm{I}}$ tablet that included a grid on one side and two columns of closely-written text on the other, adding his name and the date at the end of the inscription. Itti-Marduk-balāṭu was a highly-trained member of a distinguished scribal family who were descended from the scholar-scribe Mušēzib. For six generations his forbears had been concerned with esoteric cuneiform texts on astronomy and other learned matters. Itti-Marduk-balāṭu copied the inscription from a tablet that had belonged to, if it was not written by, a scholar from a different family, called Iddin-Bēl.

In time this particular tablet, like countless others, came to be buried in the ruins of Babylon, where it lay until local inhabitants turned it up around AD I88o. Shortly afterwards the tablet arrived in the British Museum, where it was purchased together with one other tablet from a dealer, who offered it on account of its distinctive and unexpected appearance. The tablet was numbered Rm III, 6B, although it is now known as BM 33333 B , and is referred to in this article as $B M$. A description was published shortly thereafter by T. G. Pinches, one of the assistants in the department, who could read cuneiform script (see Fig. 3.I):

Tablet of unbaked clay, inscribed on the obverse with characters within lozenge-shapes, referring, apparently, to certain stars, and inscribed on the reverse with omens from the flight of birds: the summatu, or swallow, and the ugagu, or raven, being mentioned. The text bears the name of Siluku, or Seleucus, and was therefore written during the Selucaean era. Size, 4 in by $3^{3 / 4}$ in.

Pinches I886: 71, no. 33
Little attention was paid to this most unusual clay manuscript for many years thereafter. The Assyriologists F. L. Peiser and A. L. Oppenheim visited the museum independently, and each apparently copied the inscription. Oppenheim is known to have prepared a transliteration of the

[^0]text but neither scholar published the results of his work Nothing further occurred until I956, when E. F. Weidner published a photograph of the grid side of the tablet and edited part of the text, using his colleagues' notes, in an article entitled 'Ein Losbuch in Keilschrift aus der Seleukidenzeit' (Weidner I956: $174-80,182-3$ ), in which he argued that the inscription concerned a form of fortune-telling by lots.

By a strange chance a second tablet containing partly identical material was published by the Assyriologist J. Bottéro in the very same volume, under the title 'Deux Curiosités Assyriologiques (avec une note de Pierre Hamelin)' (Bottéro 1956: 16-25, 30-35). This document had formerly been in the private collection of Count Aymar de Liedekerke-Beaufort, but suffered a disastrous fate. The tablet was handed to a photographer shortly before the outbreak of the First World War, during which the photographer's studio, and the tablet, were destroyed, although the photograph that he had prepared somehow survived. It was this photograph that was copied and published by Professor Bottéro, who has generously made it available to the present writer for republication here. The Count's tablet carries no date, but judging from its NeoBabylonian script, it is several centuries earlier than the Seleucid tablet $B M$, which itself stands at the end of a chain of scribal transmission. It is possible, although not certain, that this second document came from the southern Mesopotamian city of Uruk. This tablet will be referred to in this article as $D L B$.

In an important study published four years later that clarified the cuneiform expressions for play and games, B. Landsberger discussed the terminology in the published evidence, also quoting from Oppenheim's notes, and it was he who demonstrated that these two tablets must be concerned with a game (Landsberger 1960: 122-3; 127-9).

In fact, both scholars were correct. ${ }^{2}$ As will be argued here, the tablet $B M$ gives the rules for a board game which is to be identified as employing the later version of the board

Sumerian was the first language to be written in cuneiform, and its influence on cuneiform writing persisted for centuries after the language itself was no longer spoken. In the method characteristic of cuneiform texts, Babylonian words can be spelt out phonetically (and unambiguously), but can also be written in a form of shorthand whereby the word is conveyed by a Sumerian ideogram. Scribes could write a Sumerian word within an Akkadian text, and the reader would supply the Akkadian equivalent as he read, much as ' $£ 5$ ' is automatically interpreted as 'five pounds' by a modern reader, even though the sign ' $£$ ' contains no hint of the word's phonetic value. Usually this phenomenon presents no problem to Assyriologists, but sometimes a particular Akkadian equivalent is not known for certain. This situation has a bearing on the text of the rules studied in this article.
2 For subsequent remarks based on Landsberger's conclusions, see Koch-Westenholz 1995: 165; Stol I995: 499; Dalley 1998: I74, and, for completeness' sake only, Hurowitz I998: 272-3.


Fig .3.1 The tablet BM (BM 33333B); obverse and reverse.
used for the so-called Royal Game of Ur. In addition, both tablets record a separate tradition according to which part of the playing grid is used for fortune-telling.

## Evidence from archaeology

While the archaeology and history of this game cannot be discussed within the confines of the present article, ${ }^{3}$ certain crucial points do need to be set out. The first boards to be discovered were the famous mid-third-millennium вс
examples excavated by Sir Leonard Woolley in the ig2os at the Royal Cemetery of Ur. ${ }^{4}$ It is these inlaid boards which have since given rise to the type name, namely the 'Royal Game of Ur', although for the purposes of study it is often more helpful to use the term 'Game of Twenty Squares'. These earliest finds have only once been paralleled since, in a single carved wooden example from the near-contemporary cemetery at Shahr-i Sokhta, Seistan, Iran. ${ }^{5}$

The third-millennium board, with twenty playing squares, takes the easily-recognisable form of a block of $4 \times 3$ squares joined to a smaller block of $2 \times 3$ by a 'bridge' of two squares. Each of the two players has seven identical pieces, while the dice associated with the finds were either tetrahedrons or four-sided stick dice.

Tetrahedal dice from Ur are made of stone or lapis lazuli. Such dice, often incorrectly described as 'pyramidal', have four flat sides with slightly rounded corners. In each case two corners are distinguished by inlaid points which provide the score when they fall uppermost, so that tossing a single tetrahedron gives two chances out of four. It may be observed that dice of this kind do not crop up in later Mesopotamian archaeology.

The second variety is the 'stick' or long dice, numbered one to four, ten examples of which were discovered at Ur. Described but not properly illustrated by Woolley (I934: pls 99 and 221), they tend to have been overlooked in the literature and, if anything, regarded as unknown in Mesopotamia. In fact, they too do not appear in other Mesopotamian contexts, and their presence at Ur is similarly suggestive of a possible external origin.

Boards for the Game of Twenty Squares become increasingly common throughout the second and first millennia вс, and over one hundred examples are now known from Iraq, Iran, Israel, Syria, Jordan, Lebanon, Turkey, Cyprus, Egypt and Crete. Early in the second millennium вс the board underwent a slight change, which apparently prevailed throughout the remainder of its ancient Near Eastern history. ${ }^{6}$ The smaller block of six squares $(3 \times 2)$ that had previously formed one end of the board was straightened out into a continuation of the 'bridge' element to form a continuous projecting run of eight squares, or, in other words, a central run of twelve squares in toto. The two stages of development are illustrated in Fig. 3.2.

The later board still possesses the characteristic twenty squares, and the number of marked or cross-cut squares sometimes remains the same, although after 2000 BC there is a noticeable tendency to dispense with marked squares in the corners.

## Possible implications for playing the game

Since the discovery of the famous material from Ur, many writers have speculated as to how the game was actually played. The following remarks by Tim Kendall are quoted as

[^1]4 See Woolley 1934: 275-9, and the illustrated contribution by Andrea Becker in the present volume.
See Piperno/Salvatori 1982; 1983, and Tosi 1982.
Bearing in mind that a certain proportion of the known boards are broken, and thus incomplete, at the narrow end.


Fig. 3.2 The board for the Royal Game of Ur, or the Game of Twenty Squares, in (a) the third-millennium form, and (b) the form in the second and first millennia $B C$.
representing, at least in the present writer's view, what has been the most plausible view of the matter:

With the board placed lengthwise between them as in senet, the opponents probably started the game with their pieces lined up on the long blank strips of their respective sides of the board. Then, doubtless by some special throw of the dice, each player put his pieces into play one by one upon his own short row of four spaces, moving them towards the corner. From the corner squares, which are marked in many of the known boards, the players moved their pieces out along the middle row, where they would now have been moved in the opposite direction. As it would appear that the winner of the game was the player who first managed to move all his pieces safely down this middle row and off the board ..., it may be assumed that the principal action of the game would have been the competition of the players for the mastery of these twelve squares. Here the adversaries would surely have tried to block or leap one another's pieces, or to capture them and perhaps send them back to the starting position, while at the same time moving their own pieces, via the marked squares, or 'safe havens', down the row to the end. Kendall I982: 265
If, in the third-millennium version, the pieces had indeed been safe from attack once they had negotiated the 'bridge' and turned the far left or right corner, the new format would suggest a change in play, in that the pieces would remain 'at war' all the way to the end of the track. This innovation would be intelligible, since a player could now have his pieces or even his final piece sent back to the beginning just when he thought he was on the point of winning, resulting in a much less predictable and more exciting game (as experiment demonstrates).

## The evidence from the tablets

## BM and DLB, obverse

The obverse of $B M$ contains a diagram formed of intersecting horizontal, vertical and diagonal lines. This network results in a field of eighty-four units, which in turn may be analysed as twelve sets of rectangles, each set subdivided into one central lozenge surrounded by six triangles. Each of these lozenges and triangles is inscribed with one or more cuneiform signs. Each central lozenge, furthermore, is inscribed with one sign of the zodiac, conveniently demonstrating the order in which the twelve rectangles must

[^2]18 Ancient Board Games in Perspective
be read. This material from the obverse of $B M$ is duplicated, and partly restored, by the obverse of $D L B$.

The cuneiform signs within each set of lozenges must be read in a clockwise direction to produce a meaningful phrase, which may be literally translated ${ }^{7}$ as follows:

| I | Pegasus | One who sits in a tavern |
| ---: | :--- | :--- |
| II | Aries | A beer vat(?) will turn away |
| III | Pleiades/Taurus | I will pour out the dregs for you |
| IV | Gemini | You will find a friend |
| V | Cancer | You will stand in exalted places |
| VI | Leo | You will be powerful like a lion |
| VII | Virgo | You will go up the path |
| VIII | Libra | Like one who weighs up silver |
| IX | Scorpius | You will draw fine beer |
| X | Sagittarius | You will cross the ditch |
| XI | Capricornus | Like one who owns a herd |
| XII | Aquarius | You will cut meat |

## Remarks

Before he had seen the duplicating manuscript, J. Bottéro tentatively interpreted each of these curious phrases as a dog's name, on the basis of the colophon, discussed below. This idea stemmed from the Babylonian practice of making figurines of dogs with their names inscribed on their backs in cuneiform, to frighten off devils. His later remarks (Bottéro 1956: 30-35), took account of Weidner's study.

Landsberger (1960: I28) read these phrases together in pairs or triplets down the columns, left to right. In the translations adopted here, this produces the following:
a) i I-2: One who sits in a tavern, a beer vat(?) will turn away;
b) i 3-ii l: I will pour out the dregs for you; you will find a friend;
c) ii 2-3: You will stand in exalted places; you will be powerful like a lion;
d) iii $\mathrm{I}-3$ : You will go up the path; like one who weighs up silver you will draw fine beer, and
e) iv I-3: You will cross the ditch; like one who owns a herd, you will cut meat.
Dismissing the apparent predictive or 'omen-like', flavour of these lines, he wrote that they were 'nicht ernst zu nehmen; es sind farbreichere Nuancen für das, was wir "das Spiel gewinnen" nennen', and later more specifically: ‘die ersten Glieder dieser Doppelsatze spielen auf positionen im Spiel, die zweiten auf Grade oder Arten des Gewinnes an'. As shown below, this interpretation will not stand up to scrutiny, nor will his other proposal, namely that the grid side of the tablet showed the design of the game board which was to be drawn on the ground.

On the contrary, it is assumed crucially in this article that these twelve phrases must stand independently of one another rather than form such asymmetrical groups, in view of the clear graphic subdivisions found on the tablets. One needs, therefore, to interpret entries I, VIII and XI as '(you will be) one/like one who...'

In some cases, as was already established by Bottéro, there is a clear relation in contemporary terms between a
been omitted from the main text. Full transliterations of al cuneiform passages, with notes, are given in the Appendix.
given zodiac sign and its associated legend. The bes examples are Gemini - a friend; Leo - resembling a lion; Libra - weighing silver, and Capricorn - owning a herd. In eight of the twelve, however, no equally convincing connection leaps to mind, although it is of course possible that to the Babylonians the associations were prompted by specific traditions of which we are ignorant.

## DLB, reverse

The reverse of $D L B$ contains a second similar diagram with a different set of inscriptions, although, unfortunately, the surface is badly damaged and only part of most of the legends can now be made out. These may be very tentatively translated as follows:

I ...
II Popular omens will be imposed on you(?)
III There will be no beer tablet(?)
IV ..., you will not depart
V You will ... ghee
VI There will be ...
VII Justice(?) from a coloquinth(?)
VIII A ...-louse will be there(?)
IX Tearing up(?) his bandage(?)
X ...
XI He will be equal(?) to someone in authority(?)
XII An upper millstone that cannot grind(?)
These lines have been set out here assuming that the reverse reads from right edge to left, as is standard with cuneiform tablets, but it is equally possible with such unusual material that the order parallels that of the obverse, in which case one would read these entries X, XI, XII, VII, VIII, IX, IV, V, VI, I, II and III

One can hardly escape from the idea that these short phrases must have something to do with personal fortunetelling. They read, in fact, not unlike the type of conventional predictions associated with modern astrologers, such as 'you will travel over water', or 'you will meet a handsome stranger'

As will be argued below, these twelve phrases, each linked with a sign of the zodiac, correspond to the characteristic central twelve squares of the later gaming board grid for the Game of Twenty Squares. This material is thus taken as evidence that the board could fulfill a dual function in Babylonian society, at least during the first millennium BC. $B M$ provides one set of readings, most of which can be said to be 'positive.' $D L B$, on the other hand, offers an alternative version that must have been in circulation, although at present the relationship or contrast between them cannot be fully assessed.

## The evidence for a game

That a game is also involved here, however, and is the primary concern of the scribes concerned, is shown by I. the colophon to DLB and
2. the rules that are provided on the reverse of $B M$.

[^3]
## The colophon to DLB

A partly cryptic note on the edge of $D L B$ contributes two crucial pieces of information. It informs us that the contents of this tablet concerned a game (Babylonian mēlultu), and, additionally, gives us its name:

## DLB, Left Edge

I 'Pack of Dogs', for making splen[did ...; the ...]
2 are not written down; a game (fit for) nobles [...]
This establishes that the information contained in $D L B$, and by extension also that in the British Museum tablet, was definitely concerned with a game. The game to which these diagrams refers was called 'Pack of Dogs' in Babylonia. The verb 'making splendid' (šurruḩu) seems quite clear, although unexpected in this context. ${ }^{8}$

It is certainly curious that this note occurs on the tablet which has only the diagrams, and gives none of the direct information about playing the game that is provided in $B M$. One might therefore assume that the scribe knew that the predictions were made on the board that was also used for the game; it seems far less likely that the fortune-telling itself would be termed a mēlultu, 'game'.'

Landsberger (1960: I29) suggested that the gap at the end of line i before line 2 here should be restored '[its rules of play (seine Spielregeln)] are not written down'. This is possible in view of the closely-related tablet $B M$, where the rules were written down; perhaps, therefore, there was a group of Late Babylonian scholarly tablets concerned with this type of material of which we only have two.

## The reverse of $B M$

The reverse of the British Museum tablet is subdivided into two columns, to be read, as is conventional, from right to left. These lines contain direct information about:
I the gaming pieces,
2 the dice,
3 the throws needed to launch each piece, and
4 the effect of the individual pieces having either landed on
or failed to land on the marked squares of the track.
This tablet is thus unique among surviving cuneiform documents, and is by far the oldest attested example of rules for a board game.

The language in which this information is couched is, however, far from transparent. The following is a literal translation of the Babylonian cuneiform which is intended to convey exactly what is written on the tablet.

## BM Reverse:

## COLUMN

UD.GAL bird: shining piece(?)
2 Raven: shining piece(?)
3 [Rooster]: shining piece(?)
[Eagle]: shining piece(?)
5 [Swallow]: 'lazy' piece(?)
evidence in any of the adduced passages of a noun or verb for any activity resembling fortune-telling. The latter fulfilled a
psychological role quite distinct from play in ancient
Mesopotamian society.

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6 Five flying gaming pieces
7 An ox astragal, a sheep astragal,
8 two (that each) move the pieces

9 If the astragals score 2,
io the Swallow sits at the head of a rosette (or: at the first rosette).
II Should it (then) land on a rosette, a woman will love those who linger in a tavern;
I2 regarding their pack, well-being falls to them.
I3 If it does not land on a rosette, a woman will reject
I4 those who linger in a tavern; regarding their pack, I5 as a group well-being will not fall to them.

## I6 If the astragals score 5,

I7 the Storm-bird sits at the fifth house.
I8 Should it (then) land on a rosette, there will be enough food for the pack.
I9 If it does not land on a rosette, starvation for the pack.
20 If the astragals score 6 ,
2I the Raven sits in the sixth house. Should it (then) land on a rosette,
22 there will be enough food for the pack. If it does not land on a rosette, starvation for the pack.
column iI
23 If the astragals score 7,
24 the Rooster sits in the seventh house.
25 Should it (then) land on a rosette, there will be an abundance(?) of fine beer for the pack.
26 If it does not land on a rosette,
27 [there will be a deficiency of] fine beer for the pack.
28 If the astragals score io,
29 the Eagle sits in the tenth house.
30 Should it (then) land on a [rosette], their pack
3I will eat its fill [of meat].
32 If it does not land on a rosette, there will be a deficiency of meat.

33 Written, checked and collated [against its original], 34 [a tablet of] Iddin-Bēl, son of Murānu,
35 [descendant of ...]. Handwriting of Itti-Marduk-balāṭu.
36 [He who fears B]ēl and Bēltiya,
37 [Nabû(?), Tashmēt]u and Nanaya of Ezida,
38 must not efface the handwriting!
39 [Babylon; m]onth of Araḥsamnu, 3rd day,
40 [Year I3] 5 of Seleucus the King.

## The pieces:

The tablet specifies five 'flying' gaming pieces, here named after specific birds. Probably we should visualise each as an

[^4]engraved disc, or possibly a three-dimensional bird's head on a small base. ${ }^{\text {Io }}$ Four are described by the Sumerian ideograms NU KÁR.KÁR and the fifth by NU ŠE.BI.DA, although the
Babylonian equivalents are uncertain (see discussion below).
Two remarkable and important points for the history of board games emerge at first sight in this tradition of the second century вс:
I The five pieces are different one from another in form. This contrasts directly with the archaeological evidence for the seven identical pieces used for the thirdmillennium game referred to above, and, more generally, is remarkable in any game from antiquity before the appearance of chess. ${ }^{\text {II }}$
2 The pieces are in some way different in value, since the terms NU KÁR.KÁR and NU ŠE.BI.DA show that four differ from the fifth in at least one technical respect. What then is meant by the ancient terms which are attributed to the pieces at the start of the rules? In Sumerian NU can mean:
I the negative, or
2 a 'figure', or 'image'.
The verb KÁR.KÁR often means 'to shine'. This means that the first four terms could either be translated 'It doesn't shine', or 'shining figure'. The latter has been adopted in the translation here, and seems preferable, especially if the scribe is likening the pieces to planets (see below).

The second verb ŠE.BI.DA means 'to neglect', so one could translate 'It is not to be overlooked', or 'lazy figure'.

It is to be remarked that the Swallow, distinguished in this one respect at least from its fellow pieces, can be shown to differ also in its point of entry; in other words, it does not come in at 'House 2'. The expression in line io can likewise be interpreted in two ways:
I at the first rosette, or
2 at the head of a (or: any) rosette
If the former, it would mean that the Swallow enters on square 4 , the corner square, sometimes (as already mentioned) found marked with a rosette in boards of the first millennium bс. If the latter, it would mean that the Swallow can enter on the square before the rosette of its choice, of which there will usually be four. As discussed below, practical consideration of how the game might have worked suggests that perhaps both possibilities applied in play, and perhaps even that the first entry was on square four, and the other rosette possibilities were activated if the swallow was knocked off, and re-entered. Perhaps the specific nuance of the Sumerian term could be something akin to 'wild' in the sense of 'wild card'?

If the entry point for the Swallow could be the square before any rosette it must have been possible somehow to throw I , otherwise the point or advantage of that position would be wasted, and this point supports the suggestion about the independent use of the two dice. Throws of $5,6,7$ or io place the other four pieces in the fifth, sixth, seventh or tenth 'houses' respectively.
remarkable this fact is, but concludes, partly on this very basis, that the rules in the Babylonian tablet are in some way ancestral to four-handed dice chess!

The Babylonian word for gaming piece is passu, perhaps, as Landsberger (1960: 126 n .55 ) hinted, and H. Lamer had anticipated, related to the Greek pessos, 'pebble', 'gaming piece'. Two Sumerian equivalents to passu are known; zana and bizza, of which the latter is probably a word loaned from Babylonian back into Sumerian. There is some evidence from native Babylonian dictionaries that is relevant here. School exercises for pupils in cuneiform often drew on ancient lists of words, and it so happens that two fragments of such tablets in the British Museum, written down in about the sixth century BC, refer to this terminology, mentioning pieces (passu) and squares (bītu) of the gaming board, in both the Sumerian and the Babylonian languages:

Sumerian:
Babylonian:
wooden bizz[a]
wooden zana
wooden zana-house
wooden lucky zana
wooden four-house
The term translated 'lucky' here is literally the name of a goddess of good fortune, pronounced Lamma. House 4 is probably singled out for mention as it is the first rosette square encountered by the piece on the board; see below.

## The Astragals

The text next tells us that each player needed two astragals (that is, knucklebones) to function as dice. One is the commonplace sheep astragal, the classic die of antiquity, but the other, very unexpectedly, is an ox astragal.

As indicated in Fig. 3.3, an ox astragal is more than twice the size of that of a sheep. Experiment shows that such a bone is impractical as a working die, being unwieldy and hard to roll in such a way as to obviate a charge of cheating. The comparative history of board games, while providing extensive documentation for the use of sheep astragals as dice, ${ }^{\text {12 }}$ seems to provide no parallel for such a use of an ox bone. This specific stipulation must accordingly be significant for this game, and a possible explanation is suggested below.

## The board

The board is not mentioned as such, but two of its features can be inferred from the text
I The fact that it has 'houses', i.e. squares
2 The fact that it has marked squares distinct from the 'houses'.
The cuneiform text uses the word 'house' (Sumerian É, Babylonian bītu), where it must certainly mean playingsquare. There are many parallels from different cultures for this usage. ${ }^{13}$ The presence of marked squares encountered by the pieces as they travel round the board can be inferred from a term expressed by an ambiguous Sumerian ideogram (see n. I above). This is the sign SÜR, which has a variety of known equivalents in Babylonian. The majority are the

[^5]

Fig. 3.3 Comparative size of sheep and ox knucklebones; drawn by A. Searight from ancient examples from Tell Brak, N. Syria.
names of small insects and can be discounted here. Alternative meanings are two words for 'ditch', sūru and harru, while the third is the little-attested Babylonian word tanpaḩu.

Terms for ditch claim serious attention at first sight in the present context, since a ditch is suitable for marking the border between two plots or spaces, or in this case the 'houses'. The Babylonian verb arādu, translated above as 'land on', literally means 'to go down', and would certainly be appropriate to describe the passage of a gaming piece into a marked square described as a ditch. This interpretation would make good sense textually, but a 'ditch' is not an obvious term for a square distinguished only by a graphic design, nor can it be convincingly identified with other features found on surviving Near-Eastern gaming boards

This leads us to the third possibility, the Babylonian word tanpahu. The meaning of this term has so far been unclear, but a lead is provided by the three-radical Semitic root which underlies the word, the sequence $n-p-h$. This particular root in Babylonian carries the meaning 'to twinkle', 'to shine', and it may therefore be conjectured that the derived noun tanpahhu means 'twinkling thing', or 'shining thing'. In the light of this approximate etymological meaning one may propose that the word means 'star' or 'rosette', and take it to refer in this context to the marked squares on a gaming-board, often distinguished, as we have seen, by a rosette or star-like design. If this argument is correct, then the rules at once become intelligible, since the tablet tells us in a rather roundabout way that the rosette squares are lucky if a player lands on them, and unlucky if he is forced to pass over them.

## The throws

Regarding the astragals, the likelihood is that only four of the six faces had a numerical value. This was certainly true in classical antiquity, although in some circumstances, such as when playing on sand, all six faces have sometimes been used.

Tutankhamun as part of the gaming equipment used for the Gam of Twenty Squares, among others, real and imitation, that vary between I. 7 and 3.I cm in length; see Tait 1982: 38-4I and pl. XVI. See also Lamer 1899: 202I.
I3 See e.g. Pieper I93I: 22.

The rules reveal that the scores of 2, 5, 6, 7 and io could somehow be produced by the two astragals when thrown together. Since it is clear that these throws are those required to launch the various pieces on their journey, and since the need for an element of hazard means that other scores should also be possible, one might perhaps infer that the two dice could produce eight of the nine numbers between 2 to io. Two dice cannot, of course, produce a numerical throw of I .

The precise way in which two astragals can produce the scores between 2 and io is a matter for mathematical speculation, the text providing us with no evidence. The matter is complicated if the larger one were to have different values from the smaller.

One possible solution, proposed by the late R. C. Bell, is to assume that the two dice have the same range of values, and that the individual faces are numbered $\mathrm{I}, 2,3$ and 5 . Here, the possible combinations provide the numbers between 2 and io, while omitting 9:

| $\mathrm{I}+\mathrm{I}=2$ | $2+\mathrm{I}=3$ | $3+\mathrm{I}=4$ | $5+\mathrm{I}=6$ |
| :--- | :--- | :--- | :--- |
| $\mathrm{I}+2=3$ | $2+2=4$ | $3+2=5$ | $5+2=7$ |
| $\mathrm{I}+3=4$ | $2+3=5$ | $3+3=6$ | $5+3=8$ |
| $\mathrm{I}+5=6$ | $2+5=7$ | $3+5=8$ | $5+5=\mathrm{IO}$ |

$\mathrm{I}+5=6 \quad 2+5=7 \quad 3+5=8 \quad 5+5=$ 10
The following shows the relative chances of throwing each of these scores:

| Score | Chance | Score | Chance |
| :---: | :---: | :---: | :---: |
| 2 | I: I6 | 6 | $3:$ I6 |
| 3 | $2:$ I6 | 7 | $2:$ I6 |
| 4 | $3:$ I6 | 8 | $2:$ I6 |
| 5 | $2:$ I6 | Io | I $:$ Io |
| Alternatively | the $n$ number of possible combinations is ten |  |  |

Alternatively, the number of possible combinations is ten
$A+A, A+B, A+C, A+D, B+B, B+C, B+D, C+C$,
$C+D$ and $D+D$
However, each of these suggestions leaves the disparity in size between the two knucklebones unexplained.

A simple and quite different approach is to follow the hint provided by the relative size of the two dice, and suggest tha the ox astragal functioned as a sort of 'double-or-quits die'. The larger die could be thrown, when appropriate, to convert the score of the smaller die.

One could therefore postulate the following scheme:
I In order to launch the pieces the player throws first the sheep astragal only. This would provide one of the scores I, 2, 3 or 4 . Of these, only 2 would serve to launch a piece, in this case the Swallow. If the Swallow was already on the board he would
2 Throw the ox astragal. This die, likewise with four possible faces, would have to work in a different way, providing one of two scores only, i.e. 'yes' or 'no'. Either the two broader faces were 'yes' and the two narrower were 'no', or perhaps each 'value' had one broad and one narrow face.
If a player threw a 'yes' face, this would have the result of converting the primary score produced by the sheep die in the following way:

Sheep astragal face i becomes 5
Sheep astragal face 2 becomes 6
Sheep astragal face 3 becomes 7
Sheep astragal face 4 becomes io.
This would mean that each of the five necessary starting throws could be produced directly by the two dice, so the

Swallow would start from just the simple numbered die, and that the UD.GAL, the Raven, the Rooster and the Eagle needed in addition the right throw of the 'doubling' die 'Doubling' is technically a misnomer, of course, and it is admittedly a curious thing to the modern reader that the numbers should run 5, 6, 7 and io, but the tablet is quite unambiguous on the point

The same choice in employing the dice could equally apply once the pieces were started. If a sheep astragal throw was not helpful, impossible, or just disadvantageous to use, there was the option of throwing the ox die too to see if the throw could be converted into something tactically advantageous. In play, throws of $\mathrm{I}, 2,3$ and 4 would be needed to negotiate the stage when a piece was near a rosette, and in any case throws of $5,6,7$ or io would sometimes be excessive for a board of twenty squares where the pieces probably had at most sixteen squares to travel (see below), although there might be circumstances when one would try for the bigger throw in play too. As a corollary one could suggest that if a player opted to throw the ox die after an unproductive sheep throw, and it indicated 'no', then that turn was wasted. Alternatively the player perhaps threw the two dice together, 'reading' the result in the way that was most helpful at that moment.

This simple proposal has the particular advantage that the rules as they are communicated actually provide all that is needed to play the game, assuming that the board is that for Twenty Squares in its evolved form, and that the direction of play followed that proposed above.

As it is understood here, then, the development of the game, once the pieces are entered, centres on whether or not they can land on marked squares. The fortunes of the five pieces are expressed in various oblique terms, and they are directly dependent on this point:
2: Swallow : success with women + general well-being /
failure with women + no general well-being
5: Storm-bird : sufficiency of food / starvation
6: Raven : sufficiency of food / starvation
7: Rooster : sufficiency of fine beer / lack of fine beer
Io: Eagle : sufficiency of meat / lack of meat
Note that the entry of the pieces and the consequences of whether or not they land on marked squares are the only points covered by the text of the rules.

The play of the game may be summed up most clearly with the help of Fig. 3.4.
I) The Swallow enters at a throw of 2 on the first rosette, or on the square before any rosette square. If the former, the Swallow has four chances of landing on a rosette (ignoring for the moment the possibility of being knocked off to start again).
2) The Storm-bird enters House 5 at a throw of five. This square will be the first of the central row of twelve. From this point the Storm-bird has three chances of landing on a rosette.
3) The Raven enters House 6 , the subsequent square, at a throw of 6. It also has three chances of landing on a rosette.
4) The Rooster enters House 7 , the next square, at a throw of 7. It also has three chances of landing on a rosette.
5) The Eagle enters House io at a throw of io. From here it has only two chances of landing on a rosette.
 the game (first millennium)

The game that emerges from the obscurity of this remarkable document is thus at once a race game and a betting game. The information presented by the scribe Itti-Marduk-balāṭu fits quite satisfactorily with the assumption that the underlying gaming-board is that for the Game of Twenty Squares, and also that the route followed by the pieces is that suggested above. The rather colourful description of the fate of the gamesmen becomes more intelligible if one assumes that the players started with a pile of tokens. As each piece moved down the track quantities of tokens would be won from the pool or paid into the pool as each came to the 'mixed blessing' of a rosette square. One must assume that the yield or penalty varied from piece to piece, in accordance with the number of chances each had to make a successful landing, as outlined above. In the course of the game a player's fortunes could evidently vary drastically, and this aspect would be greatly enhanced if, as seems more than plausible, a man could be knocked off his square and made to start the journey again if an enemy piece landed on it while he was in possession.

The scheme in Table 3.I illustrates what we we are told about the pieces, attributing a hypothetical scale of tokens corresponding to each piece's chances of landing on a rosette. It will be noticed that the scribe uses the phrase 'the pack' to refer to what we would call a side, or team. This terminology derives clearly from the ancient name for the Game of Twenty Squares, given by the second tablet, 'Pack of Dogs'. The word 'dog' is often found elsewhere to mean a gaming piece; it is common usage, for example, in Demotic, Egyptian, Greek, Hebrew and Arabic sources, ${ }^{14}$ and we may assume that this name both for the pieces and the game itself greatly antedated the period when these particular tablets were written.

In support of this note we may cite a famous letter in Babylonian cuneiform that was sent to the Egyptian pharaoh at Amarna in Egypt by the Mitanni King Tushratta in the fourteenth century вс. This tablet details a lengthy inventory of expensive gifts which the Mitanni ruler was despatching to Egypt for political reasons, and it includes at one point the

[^6]intriguing item five golden dogs and five silver dogs'. ${ }^{15}$ It is hard to imagine what these might have been other than a set of fancy pieces for the Game of Twenty Squares

The fate of the pieces is described in the rules in very human terms, however, and it is easy to imagine the game being played in a tavern by freebooting soldiers, the bets settling who was to pay for the food and drink and any warmer entertainment that might be on offer in the establishment. There is a rather evocative phrase in a cuneiform letter of about 1800 bс from the site of Mari in Syria, which refers to 'the deserters come to the tavern, to you, for playing', ${ }^{16}$ and this picture sets the scene directly for the phraseology in the tablet. This view is supported by the fact that the Babylonian word for 'pack' in the name 'Pack of Dogs' has a second meaning, 'troops', and it is possible that there is more than a touch of humour in the scribe's mind, in that writing about his gaming pieces, traditionally known as dogs, he has by means of a pun reinterpreted them as boisterous soldiery.

There is a further tradition preserved in Itti-Mardukbalāṭu's document, however. The names of the dog-pieces themselves, just to confuse things further, are bird names. Why should this be?

We must redirect our attention to the diagram laid out on the other side of the tablet. Here we have a sequence of twelve squares associated with the signs of the zodiac, for each of which a rather cryptic legend is quoted. As argued in this study, these twelve squares represent the twelve squares of the central row on the game-board, and the scribe is suggesting that they therefore represent the twelve portions of the heavens.

At least four of these five bird names were also used to denote astronomical constellations, showing that they had definite astral associations. According to this tradition the Raven is Corvus, the Rooster is Lepus, the Eagle is Aquila, and the Swallow is W. Pisces (see conveniently Hunger/ Pingree 1999: 27I-7). This leaves the Storm-bird unidentified, but that term does not seem to occur anywhere else at all, and it is likely that it is an alternative name for another bird name usually used with astronomical meaning. Obviously the constellations as such cannot be said to move through the zodiac, but perhaps these bird names are here meant rather to stand for the five planets that can be seen with the naked eye, i.e. Venus, Mars, Jupiter, Saturn and Mercury. Support for this proposal comes from the fact that the Raven is already known to stand also for Mars in some contexts, although the other identifications suggested here cannot yet be supported from other cuneiform texts. Nevertheless the idea is not so far-fetched in that the scribe would naturally choose bird names to convey the idea of fateful bodies moving or flying across the heavens.

## The relationship between obverse and reverse in BM

We must finally consider the problem of the relationship between the diagram and the rules presented by the tablet
unknown word. Could they be dice? See Appendix below
16 Dossin 1950: 28: 17: the deserters, says the text, ana bīt șäbītim ana mēlulim illakūnikkum.

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Table 3.1
Information given about the pieces in the game. A hypothetical scale of tokens has been attributed, corresponding to each piece's chances of landing on a rosette.

| Piece | Starting throw <br> needed | Number of chances <br> at a rosette | Advantages from a rosette square | Tokens won/lost | Ancient category |
| :--- | :---: | :---: | :--- | :---: | :---: | :---: |
| Swallow | 2 | 4 | Women and well-being | 3 | NU KÁR.KÁR |
| Storm-bird | 5 | 3 | Food | 4 | NU KÁR.KÁR |
| Raven | 6 | 3 | Food | 4 | NU KÁR.KÁR |
| Rooster | 7 | 3 | Fine beer | 4 | NU KÁR.KÁR |
| Eagle | 9 | 2 | Meat | 5 | NU ŠE.BI.DA |

Table 3.2
The relationship between the diagram legends and the rules presented by the tablet BM.

| Piece | From the rules | Diagram legends |
| :--- | :--- | :--- |
| Swallow | A woman will love those who linger in a tavern | 1. One who sits in a tavern |
|  | Regarding their pack, well-being will fall to them | 2. The beer vat(?) will turn away |
|  |  | 3. I will pour out the dregs for you |
|  |  | 4. You will find a friend |
| Storm-bird | There will be enough food for the pack | 5. You will stand in exalted places |
|  |  | 6. You will be powerful like a lion |
| Raven | There will be enough food for the pack | 7. You will go up the path |
|  |  | 8. Like one who weighs up silver |
| Rooster | There will be enough fine beer for the pack | 9. You will draw fine beer |
|  |  | 10. You will cross the ditch |
| Eagle | The pack will eat its fill of meat | 11. Like one who owns a herd |
|  |  | 12. You will cut meat |

$B M$. Table 3.2 juxtaposes the two sets of information, showing some very suggestive parallels

The correspondences between these two groups ${ }^{17}$ are of several kinds:

Legends I-4 match the Swallow, and concern drinking in a tavern.
Legend 3, 'I will pour out the dregs for you', probably means 'we will drink deep together', and indeed Legend 5 could also be translated 'You are here to drink', rather than 'You will stand in high places', if one seeks to draw them even closer together. ${ }^{18}$ There is no correspondence in the legends to the question of 'food' (or 'bread'), the concern of both the Storm-bird and the Raven, but Legend 9 directly overlaps with 'fine beer', the concern of the Rooster, and Legend i2 likewise picks up the question of 'meat' that is associated with the Eagle. In outline there is clearly a correspondence between diagram and rules in Legends I-4, 5, 9 and I2 at least.
As noted above, Legends 6, 8 and II clearly overlap with the nature of their zodiacal signs. Legend 4 , which also does so, should perhaps be relocated here rather than in the preceding group, since a woman's love or hatred is probably to be regarded in this context as a different thing from friendship between men.

The remaining two Legends, 7 and io, share the feature that they could conceivably be understood as applying to the board itself. In Legend 7, the 'path' could be

17 It is worth pointing out that, as far as can be seen, there is no connection between the rules in $B M$ and the alternative twelvesquare grid in $D L B$.
18 The reason for this is that there are two homophonous
Babylonian verbs: šaqû A, 'to grow high', 'move upwards', and
understood as the track along the board, i.e. the sequence of houses. In Legend io, 'you will cross the ditch' could be seen to mean simply 'you will surmount your difficulties'. ${ }^{19}$ Alternatively both could be taken to concern nuances of play not touched on by the rules, the first suggesting (for example) that a piece might be advanced beyond what is actually scored by the dice, and the second that a piece might be constrained to pass over a certain point or the like. It does not, however, seem possible to identify the term 'ditch' here with the sign SÙR that occurs in the rules, for which a meaning 'ditch' is one possible interpretation, as discussed above.

These suggestions are mentioned with diffidence, since they would mean that different categories of information were presented in a very compressed and obscure format, which is perhaps rather unlikely. A further problem is posed by the second tablet described above, which proves the existence of at least a second set of legends associated with the run of twelve squares.

What, then, is the nature of the relationship between the two sides of the British Museum tablet?

It must be stressed that the diagram of twelve squares cannot be taken to represent a whole game board in itself For one thing, there is no evidence for a complete $4 \times 3$ square board, be it from ancient Mesopotamia proper or from elsewhere in the ancient Near East. ${ }^{20}$ Furthermore, it is hardly possible to make sense of the rules if one were to posit

## šaqû B, 'to give to drink'.

i9 Compare perhaps the first-millennium Assyrian tamittu, or oracle request, quoted in the $C A D$ S: 415 , that asks: 'will he cross each of the canals and ditches that come his way??
the existence of such a board. ${ }^{21}$ It is intrinsically improbable that the two sides of the cuneiform tablet should be completely unconnected despite their textual overlap, and since the main feature of the late board for the Game of Twenty Squares is indeed a sequence of twelve squares, it is hard to avoid identifying them with those of the diagram.

There is, moreover, an additional piece of independent evidence to bolster the claim that the game covered by these rules must have been a universally familiar board game. This is a passage from a cuneiform letter of the seventh century вс that occurs on a tablet from the library of Assurbanipal, king of Assyria, found at Kuyunjik (Nineveh), his royal capital. It is a literary letter about war among several collected on the tablet, addressed to the king himself. The writer alludes to the game to convey his confidence in his own future triumph. The three relevant lines may be translated as follows:

Your troops, well-being falls to [them];
Let them go out from House 5, House 6, House 7:
Alone I will make my exit, and get as far as the...
The extent to which this highly individual phraseology parallels that of the rules makes it virtually certain that the same game is in question. It is evident that the Swallow must have already been entered on the board and the next three pieces also successfully entered on their starting squares, and the passage probably confirms the impression given by the rules that the pieces had to be entered in a fixed order. The opposition then only had to launch his Eagle to feel sure of winning, and the force of the passage seems to be that even though the placing of the enemy pieces suggests a strong advantage, the speaker will conquer in the end through a brilliant display of skill and luck. The real meaning of 'alone I will make my exit' might rather be 'I shall play out in one go.' It is very much in the order of things Assyriological that the final word, evidently a description of how one actually won the game, should be broken and defy certain restoration; a possible reading is 'boundary'.

In view of the discussion above concerning the pun with the concept of the gaming pieces in the letter, it is especially revealing that the passage has here been applied to the behaviour of real soldiers. What, however, is particularly telling for our purposes is that the writer alludes to the game in his letter without any preamble, such as: ‘as one might say in the game of ...'. His elaborate metaphor shows that the reference must have been instantly recognisable, much as chess would be in a parallel usage today. A political speech might draw on chess to drive home a point ('gambit', or 'stalemate'), but no-one today would draw any analogy from a bout of Rithmomachia. This passage, then, is good evidence to support the idea that the phraseology of our rules belongs to the most popular and familiar Mesopotamian board game.

The explanation that might account for this elusive relationship between the diagram and the rules is surely the very point that the board for the Game of Twenty Squares could also be used for telling fortunes. The traditions associated with the row of twelve squares recorded on the one side would be those pronounced by the fortune-teller who, with a great mumbling of mysterious words and mystic flourishes, would roll the dice to arrive at the prediction in return for a fragment of battered silver. The second Babylonian tablet, $D L B$, with differing legends on the second side, would then be a record of another variant fortunetelling tradition. The extent to which this usage overlaps with the game itself is highlighted by the fact that the scribe of $D L B$ tells us in so many words that the subject of his tablet is a game.

This dual function, or potential dual function, would correlate with a different type of evidence that has been adduced from archaeological finds of both the third and second millennia BC, that the board might also have been used in some contexts for divination. ${ }^{22}$

## Boards and divination

The external shape of the second-millennium boards from Rumeileh in Palestine (see Grant 1934: 34; pl. XX and fig. 4) and Kamid el-Loz in Syria (see Meyer 1982: 55, Abb. 5: I), is more than reminiscent of clay sheep-liver models found at several contemporary sites in Syria, Palestine and Anatolia, as well as Kamid el-Loz itself. ${ }^{23}$ Such models were used by ancient diviners to instruct their pupils in the art of interpreting significant features observed in the liver of a specially sacrificed sheep. Given this rather suggestive similarity, J.-W. Meyer has questioned whether this might imply some specific connection between extispicy (the drawing of omens by examining animal viscera) and the use of the game board. In addition, it has been suggested that the third-millennium boards from Ur, if not that from Shahr-i Sokhta, were not necessarily used for mundane play, but might rather have had a function to do with telling the future, an idea based on the funerary circumstances in which they were found (see Meyer 1982: 65-9, and in greater detail the paper by Andrea Becker in the present volume).

Admittedly, as Meyer has taken pains to point out, the reverse of the Kamid el-Loz board shows none of the basic anatomical features usually visible in liver models, and the resemblance is therefore limited to outward shape only. In hinting at a possible special development of the game for some fortune-telling purpose, Meyer has also pointed to a tempting connection between the twenty squares of the playing track and the twenty parts of the liver into which the ancient diviners tended to subdivide that organ. ${ }^{24}$

20 The apparent $4 \times 3$ 'board' from Ur illustrated in Woolley 1934: pl. 97, is an incomplete board for the Royal Game.
2I Considering this in more detail, one would presumably have to posit a race game for up to five players, each of whom has one birdshaped piece. The track would then consist of twelve basic squares, the order again provided by the zodiac sequence. One function of the legends in the triangles could be to show the order followed within the seven subdivisions of each of the twelve squares, clockwise round the edge and into the middle. Each piece would then have to travel I2 $\times 7=84$ cells. One could suggest,
theoretically, that one astragal controlled the movement of the pieces from house to house, and the other the movement within the houses. It is difficult to see how the rules could be brought to bear on such a putative (and surely desperately uninteresting) game.
22 See Finkel 1995: 70-I.
23 Mention should perhaps be made here of two first-millennium boards of stone which are superficially comparable in shape, one from from Tell Halaf in north-eastern Syria (van Buren 1937 II-I5), and the other from Sam'al in Turkey (for a photograph, see Thiele 1984: 182)

While these ideas certainly provide a complementary background to an assessment of the written evidence studied here, they do not suffice, at least in the present writer's view, to indicate that the twenty-square grid was preponderantly used for fortune-telling activities. On the contrary, the known distribution and occurrence of twenty-square grids throughout the ancient Near East (and elsewhere) points overwhelmingly to its primary use as a board game played for entertainment.

Because the traditions associated with the twelve squares were ancient and hallowed ones, and mixed up with the game when played for fun or for bets, the original compiler behind Itti-Marduk-balāṭu's tablet BM has recorded all the information at his disposal in his attempt to make sense of the national game of Babylonia. It is an interesting point, of course, why such a tablet should have been written in Mesopotamia. Very few cuneiform inscriptions have been identified that seem to answer 'modern' questions, such as 'How do you play the Royal Game of Ur?'. ${ }^{25}$ It is, in a way, misleading to describe the tablet $B M$ simply as giving rules. The scribe did not set out to provide the information that would allow a modern reader to grasp the play of an unfamiliar game from the written word alone. Everybody knew perfectly well how the traditional game was played normally, so it is likely that the details preserved for us are in some way unusual, perhaps reflecting a more complex game, or one with some subtle difference. One might suggest that it was the betting scores that were his concern in part. Let us suppose that originally, in the game's earlier manifestations the rosettes were lucky in a very simple way: a player who landed on one gained a second throw, and if he missed, he forfeited that chance. The game is perfectly playable and enjoyable on that basis, and in many social contexts that would be all there was to it. The high-pressure gambling of the sort that seems to be reflected in the tablet's rules is probably a secondary or specific development, involving one scoring system which happens to be recorded for us here.

The interpretative view of both pieces and board that interested the scholars who transmitted these tablets constitutes an unusually detached look at a very traditional aspect of Babylonian culture, in which an awareness of astrology was very much to the fore. Perhaps, indeed, such a composition was a response to stimulus from outside the cuneiform world. Of interest in this regard is a fragment of Greek papyrus from Oxyrhyncus from the late second or early third century AD, which contains part of a commentary on a thirty-square board game, evidently a late form of the Egyptian game of Senet. ${ }^{26}$ This commentary, fragmentary though it is, offers several rather interesting points for comparison with the cuneiform text:

24 Again, see Andrea Becker's article here. Meyer (1982) has also made reference in this connection to an article by C. J. Gadd, which saw a reference in an obscure omen drawn from a sheep's intestine to a supposed Babylonian board game reminiscent of Chinese Chess (Gadd 1939: 66-72). In the present writer's opinion, however, this latter theory is totally erroneous, since it is based on a textual misunderstanding (see Finkel 1991а), so it cannot be counted as supporting evidence.
25 Examples include recipes for beer, instructions for dyeing wool and procedures for making glass, but such invaluable cuneiform exts are conspicuously rare.

I The pieces are also called 'dogs'.
2 The author of the commentary identifies the thirty squares of the Senet board as corresponding to the thirty days of the lunar month.
3 Some at least of the squares on the board are known as 'houses'.
4 Reference is made within the commentary to a whole book in Greek on the subject.
Here we glimpse comparable late astronomical, or rather astrological, interpretation being applied to the characteristics of a traditional board game in Egypt which, like the Royal Game of Ur, was probably likewise originally wholly independent of such associations

## Applying these rules to the board for the Game of Twenty

 SquaresThe assumption made here that these late cuneiform rules apply to the Game of Twenty Squares is based on the following five points:
I The reverse of $B M$ inescapably presents rules for a board game for which dice and pieces are required, for use on a board that has a sequence of houses, some of which are distinguished by a characteristic mark, here interpreted as a rosette. ${ }^{27}$
2 It is plausible that the underlying board and therefore the game itself should be one known from the archaeological record rather than one which is totally unknown, since surviving gaming boards from the ancient Near East are surprisingly numerous.
3 Archaeology has established that there were really only two board games in ancient Mesopotamia that were enduringly popular, namely the Game of Fifty-Eight Holes and the Game of Twenty Squares.
4 The present author - at least - has been wholly unable to make sense of these rules if applied to the board for FiftyEight Holes, but they do make sense, and produce a good, working race game, if applied to the first-millennium board for the Game of Twenty Squares. ${ }^{28}$
5 The fact that a sequence of twelve squares with certain astrological associations also used for fortune-telling is recorded in the same context as the rules, and in terms related to those rules, substantiates the assumption, in that the first-millennium boards for the Game of Twenty Squares are invariably characterised by a sequence of twelve central squares.

## Playing the Game of Twenty Squares

To conclude, it is appropriate to offer some remarks as to how this race game for two players could have been played in the

26 See Pieper 1931: 29-36, and Kendall I978: 38
27 What are here seen as rules, in other words, cannot be interpreted as a form of divination. The fact that five individual pieces, which represent one pack or side, move along the track would preclude such an interpretation, and, to the present writer at least, the material on $B M$ reverse emerges as quite distinct from the variety of mantic practices attested in ancient Mesopotamia of the first millennium вс.
28 Witness the successful sales of the commercial reproduction based on these rules, now [2005] in its fourth manifestation, marketed by the British Museum Company.
first millennium вс, applying the preceding interpretation of the rules tablet to the board plan in use at that time.

A the route
As suggested at the outset of this article, it may be proposed that the route is that represented in Fig. 3.5, although it must be clearly stated that there is no evidence on the point.

B EQUIPMENT
I Board with later lay-out showing a central run of twelve squares.
2 Five different pieces for each player, each inscribed or otherwise marked to represent the Swallow, the Stormbird, the Raven, the Rooster and the Eagle
3 One four-sided die, with the faces marked $\mathrm{I}, 2,3$ and 4 .
4 One four-sided die, with two faces marked 'yes' and two 'no'.
5 Twenty-five counters for each player.

C GOAL
The goal is to enter all five pieces onto the board according to the required throws, and negotiate them round the track and off the end. The opponent's pieces are to be knocked off whenever possible. In order to win the maximum number of counters, pieces are to be landed on a rosette wherever possible.

PLAYING THE GAME
I Both players put ten counters into the Pool. The numbered die is thrown, and the player with the higher score takes 'white' and plays first.
2 Taking alternate turns the players try to launch their pieces on the board. A throw of 2 from the die launches the Swallow, which probably first enters at 4, a rosette square, understanding the rule as referring to 'the first rosette', although possibly on re-entry it could be placed on the square before any chosen rosette square (as discussed above). To launch the other pieces, 5, 6, 7 or io must be thrown for the Storm-bird, Raven, Rooster and Eagle respectively. This is achieved by throwing the foursided die to produce a primary score of $\mathrm{I}, 2,3$ or 4 . The 'yes'/'no' die is then thrown. If 'yes' turns up, the score from the first die is converted as follows: $\mathrm{I}=5,2=6$, $3=7$ and $4=10$. This will allow another piece to be entered, starting from squares $5,6,7$ or io respectively. If the 'no' face turns up, the throw is lost.
3 Pieces must be entered in the correct order on the track, but once on can be moved off on a subsequent throw before the others are entered, to prevent being knocked off by the opponent's newly-entered piece using the same starting square.
4 As the pieces move round, throws of the numbered die are used, converted if required by the 'double-or-quits’ die, in order to negotiate the pieces onto the rosettes while en route. If this is accomplished, counters are won from the Pool each time to the value of the piece concerned, i.e. 3 for the Swallow, 4 for the Storm-bird, Raven and Rooster, and 5 for the Eagle.
5 Moves must always be made if there is space. If a piece is forced to pass over a rosette without landing on it the corresponding number of counters must be paid into the Pool.


Fig. 3.5 The route of play.
6 A piece landing on a square occupied by the opponent knocks off that piece, which must start the route over again after throwing the specific starting throw needed.
7 Pieces on a rosette square are safe from being knocked off. Perhaps two of a player's men can share a square and immunity from capture.
8 Exact throws are needed to move the pieces off the end
9 A penalty may be exacted by the winner for each of his opponent's pieces that are still on the board after he has got all his pieces home

## Appendix: The Assyriological Material

## 1 Transliteration of BM 33333B and DLB obverse

There follows a transliteration of $B M$, restored after $D L B$ where necessary, with variants from $D L B$ noted second:


THE ZODIAC SEQUENCE
It is uncertain whether the sequence of twelve zodiacal signs in $B M$ should be taken to represent a genuine tradition of the zodiac itself. Despite the date of the tablet, $177 / \mathrm{I} 76$ вс, the tradition is not that of the astronomical schools of Babylon adopted c. 450 BC, and exemplified in Neugebauer 1955, where the signs zib.ME represent Pisces; the scribe here still uses the group AŠ.GÁN for Pegasus, as found in BM 77824, the so-called 'TE-tablet' (Stephenson and Walker 1985: 15, 17). MÚL.MÚL is either Pleiades or Taurus, depending on how strictly the Late Babylonian zodiac tradition is followed. Note also that the cycle commences with Pegasus rather than Aries.

PHILOLOGICAL NOTES
I Restoration follows Landsberger, rather than the [a]-bi as originally suggested by Bottéro.
II Landsberger 1960: 128 and n. 62 suggested [ma]-an-nu mu-sa-hha-ar (wer holt ihn zurück?), but an interrogative is quite inappropriate here, and rather than than see this as '(Absichtlich?) falsch für usahhar', the phrase more probably involves a sandhi-writing. The restoration [da]-an-nu, person', remains unsupported, however. The meaning adopted here, 'beer or wine vat', seems more appropriate in the context than that of the adj. dannu, 'strong (man)'.

Irving L．Finkel


Fig．3．6 The lost tablet DLB：obverse，reverse and lower edge（photo courtesy Prof．J．Bottero）．

III Landsberger read here：qa－du－tu a－tap hu－su／si，＇Mache， dass Schlamm den Kanal triegen lässt＇；the last sign in DLB remains unclear
VII Landsberger read ú－＜mu＞－us－su，＇täglich＇，at this point； an alternative possibility for the Babylonian in this line that seems even less probable is＇you will tie up a duck＇！

## 2 Transliteration of DLB Reverse

The reverse of $D L B$ is so poorly preserved that only one legend is complete，and that is obscure．The following is an attempt to interpret what survives，but all the readings are tentative at best．As indicated above，it is uncertain whether the columns should be read from right to left or from left to right，seeing the reverse as an alternative arrangement to the diagram on the obverse．For the moment the order follows right to left．

V I at－［x－x］e［h］i？$a^{?}$［x］
$2 a-m u-[t] u_{4}$ UN en－［du］－uk
3 ni－pi－izs［i］－bi ia－an
VI I ni－［x］－id ul［tu］－「dap？${ }^{7}$－par
$2 t u-[\mathrm{x}]-\mathrm{x}-\mathrm{x} h i-m e-t u_{4}$
3 ba－ša－at IS－ḩu－up－tu
VII I 「NÍG？｀．SI．SÁ šá 「te？－gi’－il？

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##  

Fig．3．7 Author＇s drawing of the lost tablet $D L B$ ，after the photographs in Fig． 3．6．；obverse，reverse and lower edge


VIII I［xxx］hux $[\mathrm{x}] \mathrm{x}$
2 ［šal］－ți－iš i－maš－［šá］－al？
3 ［nar－k］a－bi la ḩa－［r］a－ri

## 3 Colophon to DLB

I KASKAL．KUR UR．${ }^{「} \mathrm{GI}_{7}{ }^{7}{ }^{7}$ MEŠ šá šu－ur－ru－hู［u ．．．．．．］
2 NU SAR．MEŠ mi－lul－ti NUN．MEŠ［．．．．］

## NOTES

I Landsberger read the end of line I as šá ku－ur－ru i［k－ki．．．］， translating＇es bezeckt Spannung zu erzeugen＇．The signs， however，seem to be clearly šu ur ru ḩu．The emendation mentioned above，reading ašāb（TUŠ！）ib！－ru－t［i．．．］，offers excellent sense，but on present evidence is unwarranted．

## 4 Transliteration of BM 33333B Reverse

## COLUMN I

I UD．GAL．MUŠEN NU KÁR．KÁR
2 UGA．MUŠEN NU KÁR．KÁR

3 ［DAR．LUGAL］「MUŠEN｀NU．KÁR．KÁR
4 ［Á．MUŠE］N＇NU＇．KÁR．KÁR
5 ［SIM］．「MUŠEN｀«［MUŠEN｀» NU 「ŠE｀．BI．DA
6 5 pa－as－su nap－ru－šu－tu
7 ZI．IN．GI GU 4 ZI．IN．GI UDU．NÍTA
8 2a－bi－ik pa－as－su
9 šum ${ }_{4}$－ma ZI．IN．GI．MEŠ 2 TA．ÀM
Io it－tab－ku－nim SIM．MUŠEN ina SAG SÙR TUŠ－ab
II SÙR $\mathrm{E}_{\mathrm{II}}-m a$ MUNUS ina É［KAŠ］．TIN．NAM $a$－šá－bi
I2 i－ra－mu（sic）「KASKAL’．KUR－su－nu šu－lum šá－kin－šu－nu－tu I3 šum ${ }_{4}$－ma SÙR la $\mathrm{E}_{\text {II }}$ MUNUS ina É KAŠ．TIN．NAM
I4 a－šá－bi i－ze－er KASKAL．KUR－su－nu
I5 I－niš SILIM ul šá－kin－šu－nu－tu
I6 šum ${ }_{4}$－ma ZI．IN．GI．MEŠ 5 TA．ÀM
I7 it－tab－ku－nim UD．GAL．MUŠEN ina É 5 TUŠ－ab
I8 SÙR $\mathrm{E}_{\mathrm{II}}$－ma ana KASKAL．KUR šá－bé－e NINDA．HुI．A I9 šum ${ }_{4}-m a$ SÙR $\mathrm{NU}_{\mathrm{II}}$－ma ana KASKAL．KUR ni－ib－ri－tú

20 šum ${ }_{4}$－ma ZI．IN．GI．MEŠ 6 TA．ÀM it－tab－ku－nim
2I UGA．MUŠEN ina É 6 TUŠ－$a b$ SÙR $E_{\text {II }}-m a$
22 ana KASKAL．KUR šá－bé－e NINDA．HुI．A šum $m_{4}-m a$ SÙR NU $\mathrm{E}_{\mathrm{II}}$－ma ana KASKAL．KUR ni－ib－ri－tú

## COLUMN II

23 šum $4_{4}$－ma ZI．IN．GI．MEŠ ${ }^{\text {r }} 7^{ }$TA．ÀM
24 it－tab－ku－nim DAR．LUGAL．MUŠEN ina 「É 7 TUŠ－ab＇
25 SÙR ${ }^{「} \mathrm{E}_{\text {II }}{ }^{7}$－ma a－na KASKAL．KUR x x
26 ［K］AŠ．＇TIN．NAM šum ${ }_{4}{ }^{\text {－}}$－ma S $\left[\right.$ ÙR NU E $\mathrm{E}_{\text {II }}$ ］
27 ［NU（？）DI］RI？KAŠ．‘TIN．NAM ${ }^{!} a^{\mathrm{I}}$－［na KASKAL．KUR GAR－an］

29 ［i］t－tab－ku－nim Á．MUŠEN ina É io TUŠ－ab
30 ［SÙR］${ }^{5} \mathrm{E}_{\text {II }}{ }^{7}$－ma KASKAL．KUR－su－nu
3I［UZU］i－mal－la－al
32 ［šum $\left.4_{4}-m a \operatorname{SÙ}\right] \mathrm{R} \mathrm{NU}^{「} \mathrm{E}_{\mathrm{II}}-m a \mathrm{NU}^{!7}$ DIRI UZU GAR－an
33 ［GIM SUMUN－šú SA］R－ma IGI．TAB u IGI．KÁR
34 ［IM］${ }^{\text {rmı }}$ MU－${ }^{\mathrm{d}} \mathrm{EN} \mathrm{A} \mathrm{šá}{ }^{\mathrm{m}}$ mu－ra－nu
35 ［ $\mathrm{A}^{\mathrm{m}} \ldots$ ］GIŠ．UMBIN ${ }^{\mathrm{m}}$ KI－${ }^{\mathrm{d} \text { ŠÚ－TIN }}$
36 ［pa－lihु $\left.{ }^{\mathrm{d}} \mathrm{E}\right] \mathrm{N} u{ }^{\mathrm{d}} \mathrm{GAŠAN}-i a ́$
37 ［ ${ }^{\mathrm{d}} \mathrm{PA}(?){ }^{\mathrm{d}}$ taš－me－t］${ }_{4}{ }^{\text {d }}$ na－na－a šá é－zi－da
38 ［．．．．．．］x ud GIŠ NU $i_{X_{X}}$－pašs ${ }_{X}$（GÍN）－šit
39 ［E（？）．KI I］TI．APIN UD 3．KAM
40 ［MU I M］E $+35{ }^{\text {m }}$ si－lu－ku
LUGAL

## NOTES

I The Babylonian reading of Sumerian UD．GAL．MUŠEN， literally a＇Storm－Bird＇，is unknown．Landsberger i96o： I22 n． 39 suggested either ugallu or pirigallu．As indicated above， NU is either the plain negative，or the Babylonian ṣalmu，＇figure＇．The ancient lexical equivalent to KÁR．KÁR in this and the three following lines is either nabāṭu，＇to shine brightly＇，or napāḩu，＇to glow，said of stars and the moon＇（among other nuances）．Both would fit here，if the gaming pieces are understood as constellations or planets．

Accordingly，read șalmu muttanbiṭu，or șalmu napḩu，and translate the phrase here＇shining figure＇．
5 The Sumerian verb ŠE．BI．DA is equated with Babylonian egû，＇to be careless，neglectful＇，hence the provisional translation＇lazy＇adopted above．The adj．egû has the meaning＇negligent person＇，sometimes with the distinct meaning ‘sinful person＇（see CAD E：47）．In view of this， perhaps the meaning here is akin to＇wild＇，in the modern sense of a＇wild card＇．If so，this characteristic could be reflected in the fact that the Swallow might not have a fixed starting square like the other pieces，but，as discussed above，can enter at more than one possible square．
7 The Sumerian ZI．IN．GI corresponds to Babylonian kiṣallu， ＇knucklebone＇，or＇astragal＇；see Landsberger 1960：I2I； I26－7 for discussion and passages．As noted there，another unidentified Akkadian term occurs in the lexical compilation Antagal F 245－46（MSL 17）：
giš－bi－za－šu－tag－ga $=$ MIN $(=$ mēlulu）šá pa－si
to play with gaming pieces
zi－in－gi gìr－ra－ra $=$ MIN šá ta－x－x
to play with knucklebones
Collation of the latter passage confirms that source A reads $t[a-\ldots$ ，source $B$ ta－［l］a？－．．．（the space before MA is apparently damaged），and source C，probably，：．．］－「lá－ $a n^{\urcorner}$．One way to harmonize these would be to read MIN šá ta－la－［an－ni］，var．šá［da（？）］－lá－an．From the context this word talānu／talannu／dalān should mean＇astragal＇．If correct，it is tempting to connect this with the second－ millennium word telannu in the Amarna letter referred to in n．I5 above，which，from the context，could be taken to mean＇die＇or＇knucklebone＇．If this association is valid， disregard of the－annu suffix in this Mitanno－Hurrian／ Akkadian attestation leaves a root／tal／underlying the known forms

If so，one could then compare the Latin tālus， ＇knucklebone，astragal＇．Cicero，evidently musing over the origin of the common Latin word for＇cubic die＇，taxillus， considered it to be the primitive from which tālus， ＇astragal＇，derives（see Cicero，Orationes 45，153）．Lewis／ Short 1879： 1835 and 1844，suggest the etymology of toelus as＇from tax－lus，root tak－or tvak－＇，but now Glare（ed．） 1982： 1902 leaves the etymology open（i．e．［dub．］）．The diminutive taxillus should stem from a noun＊taxus， which is only attested with the meaning＇yew－tree＇． Perhaps then the Latin tālus should be grouped with the suggestive second－and first－millennium cuneiform evidence and proposed as a loan from a Kulturwort for knucklebone or astragal？

A tantalising hint of what may be a bilingual
Babylonian Gambler＇s Lament is quoted on the late Babylonian school text BM 77438，quoted in CAD K： 434 lexical section：
$\mathrm{u}_{8}-\mathrm{a}_{8}$－a šà šà zi－in－gi zi－in－gi
MIN MIN MIN MIN ki－ṣal－li ki－ṣal－li
Woe，woe，（my）heart，（my）heart，my astragal，my astragal！
Although cubic dice were used in Mesopotamia from very remote times，${ }^{29}$ no word for such dice has been identified， and so perhaps kiṣallu，literally＇astragal＇，has this meaning
too. Compare perhaps Arabic káb, kabatain, kabat, used both for astragals and cubic dice (see Culin 1898: 828).
$82 a$-bi-ik pa-as-su: the question here is whether $a b \bar{a} k u \mathrm{~A}$ to send, usher in, lead', or abāku B, 'to turn upside down', is the correct verb. Weidner 1956: 178 had suggested the latter, but Landsberger 1960: I22 fn. 40 opted for the former, translating, undoubtedly correctly, as ‘zwei, die die Figuren (nach Hause) bringen'. He was followed in his by the $C A D$ A/r: 6 , who, however, mistranslate completely as 'two (pawns) who bring (home) passufigures'; the passu-figures are the pawns! Landsberger had hesitated in that abaku A is only used with animate object in first-millennium contexts, even though he had pointed out in the same article that passu, in distinction to șalmu, ... haben nur zwei Kategorien, männlich und weiblich’ (Landsberger 1960: II8-19 and 126). In any case, the pieces were clearly conceived of as animate by the scribe: they are birds, dogs and soldiers all at once
io The root behind it-ta-ab-ku-nim-ma here and in identical contexts in lines 17, 20, 24 and 29 is similarly problematic. Landsberger again opted for abāku A, translating: ‘Wenn die Knöchel zu zwei (bzw. fünf, sechs, acht, zehn) (nach Hause) gebracht werden', followed by the Chicago Dictionary, which, however again mistranslates as '(if the astragals) have been captured (lit. brought in) two by two (also with 5 , 6, 8, io.TA.ÀM)'; astragals are dice and cannot be captured! The phrase šumma kiṣall̄̄ n.TA.ÀM ittabkūnim must effectively mean 'if the astragals score $n$.', and thus a derivation from $a b \bar{a} k u \mathrm{~B}$, whose IV-stem is given as 'to fall down, to be reversed', i.e. 'to turn up', must surely be correct.
SÙR: as indicated above, this sign is lexically equated with sūru and hearru, both words for 'ditch'. Here, however, we take the lexical equation zi-na-nu-tu HIxAŠ = ta-an-pa-hu (series Aa, CT I2, 20 ii io) as a starting point. The meaning of this rare word is unknown, but its status as a tapras formation from napāhhu is self-evident, and thus a meaning of 'twinkling place', 'star' and hence rosette', with specific reference to the marked square of a gaming board, seems perfectly plausible. Compare here also niphu B , which has the meaning 'sun-disc', both literally and as applied to ornaments sewn on garments (see Oppenheim 1949: I75 and n. I3).
iI $a$-šá-bi reflects the form ašāābu, usually a tenant or resident, in this case, a person who habitually sits about in a tavern. I2 i-ra-mu is, accidentally, a plural rather than singular form.
25 The still undeciphered traces at the end of this line must conceal a word for 'sufficiency'.
33-40 It is probable that the eight lines of the colophon here were inset slightly. According to the text the tablet BM was itself copied from a tablet belonging to Iddin-Bēl son of Mūrānu, and is the work of the scribe Itti-Mardukbalātu. Since the tablet is dated, the latter can be

29 For some discussion of cubic and other dice in ancient Mesopotamia see Dales 1968; Klengel-Brandt 1980; Hallo 1983; 1996. The earliest cubic die from the ancient Near East known to he present writer is the Uruk period example from Tell Chuera described in Moortgat-Correns 1988: I60.
30 For the restoration of the name and the sequence of the thirdgeneration Iddin-Bēl I, son of Marduk-šāpik-zēri, descendant of Mušezib, see again Oelsner 2002: I4. This earlier scribe dates his
dentified as Itti-Marduk-balāṭu II, son of Iddin-Bēl II, descendant of Mušēzib, as clarified in Joachim Oelsner's recent Mušēzib family tree (Oelsner 2002: 14).
34 For the understanding of the formula 'tablet of ...' as 'tablet owned by ...' see Oelsner 2002: 6. Mūrānu does not seem to be known elsewhere as a Late Babylonian scribe; the name in this form is surely an abbreviation like Mušēzib, or a nickname, and is a by-form of mūrānu, 'puppy'; see CAD M/2: I05-6.
GIŠ.UMBIN: The CAD S 25 I understands this term UMBIN $=$ ṣupru in colophons as 'handwriting', on analogy with the English 'fist'. Through comparison with three related Late Babylonian colophons, two emanating from the same Mušēzib family, it emerges that GIŠ in line 38 here is an abbreviation for the same term GIŠ.UMBIN. These parallels also help to establish the reading of the troublesome verb at the end of line 38 .
I Reisner 1896: no. I4 (= Hunger 1968: 62 no. 167) Rev.
3I ............ IM.GÍD.DA ${ }^{\text {md }}$ EN-ana-kit-ti-šú
34 A šáa $m a r-d a-a-a \mathrm{~A}^{\mathrm{m}}$ mi-ṣir- $a-a$ GIŠ.UMBIN
$37{ }^{\mathrm{md}} \mathrm{EN}$ - ${ }^{\text {² }} \mathrm{DIN}$-su(? $)^{7}$ A-šú la-gar-tur-ru
$40{ }^{\mathrm{d}}$ AMAR.UTU-KAM KÁ.DINGIR.RA.KI ITU.GAN <UD..Io.KAM
43 MU i.ME i.ŠU 4.KAM ${ }^{\mathrm{m}}$ a-lik-sa-an-dar LUGAL
46 pa'-lih! dAMAR.UTU.KAM u ${ }^{\text {d }}$ zar-pa-ni-tu ${ }_{4}$
49 [ $\left.{ }^{\mathrm{d}} \mathrm{P}\right] \mathrm{A}^{\text {? }}{ }^{\mathrm{d}}$ taš-me-tu u $^{\mathrm{d}}$ na-na-a šá é-zi-da
52 [(............)] UMBIN NU 〈í-paš ${ }_{X}(\mathrm{GÍN})-$-×〉-šiṭ
2 BM 36318, a piece of Late Babylonian astronomy, kindly drawn to my attention by Professor H. Hunger: Rev.
I2' [............ $\left.{ }^{\mathrm{m}} \mathrm{MU}\right]-\mathrm{d}$ EN A šá ${ }^{\text {mdŠÚÚ-DUB-ŠE.NUMUN A }}$
${ }^{\mathrm{m}} \mathrm{mu}$-še-zib
I3 ${ }^{\prime}$ [pa-lihु ${ }^{\mathrm{d}}$ AMAR.UTU] ${ }^{\mathrm{r}} u^{\mathrm{T}}{ }^{\mathrm{d}}$ zar-pa-ni-tu ${ }_{4}$ GIŠ NU í-paš̌ ${ }_{X}(\mathrm{GÍN})$-šit
I4' [E.KI MU I].ME.42.KAM ${ }^{\mathrm{m}}$ an $\mathrm{u}^{\mathrm{m}}$ an A-šú LUGAL.MES ${ }^{30}$
3 BM 55484, a Late Babylonian theological text, now joined to BM 35188+, on which see, for the present, Reynolds 2002:
Rev. ii:
$7^{\prime}$ [GIM SUMUN-šú SAR]-ma IGI.TAB IGI.KÁR IM.DUB
$8^{\prime}$ [ ${ }^{\mathrm{m}} \mathrm{MU}$ - ${ }^{\mathrm{d}} \mathrm{EN}$ A šá] ${ }^{\mathrm{md}}{ }^{\text {ŠÚÚ-DUB-ŠE.NUMUN }}$
$9^{\prime}\left[\mathrm{A}^{\mathrm{m}} m u-s ̌ e-z i b\right.$ UMBI]N ${ }^{\mathrm{m}} \mathrm{KI}$-ŠÚÚ-DIN LÚ.ŠEŠ-šú
เо' [pa-liḩ DN $u$ DN NU] ríT-paš ${ }_{-}$-šiṭ E.KI
iI' ... ${ }^{31}$
Note the cryptographic and varying sequence of signs found in these colophons: GIŠ. (UMBIN) NU (5) GÍN ŠID, for which the reading is here proposed (after helpful discussion with Hermann Hunger) to be ṣupra la í-pašš-šit, 'he must not erase the handwriting'. ${ }^{32}$ Here 5 = í can be paralleled elsewhere, and the new value 'paš' for GÍN can be deduced from the lexical equation GÍN = pāšu, 'ax'. The latter usage
tablet to Year I42 of Antiochus and Antiochus his son
3I If this third colophon has been correctly restored, it emerges that the second-generation Marduk-šāpik-zēri had three sons, IddinBēl as above, $\mathrm{B}[\overline{\mathrm{e}} \mathrm{l}-.$.$] , and a previously undocumented third case$ of a scion named Itti-Marduk-balāṭu; cf. Oelsner 2002: I4.
32 Thus confirming the rejection of the earlier tentative reading $t u_{I 8^{-}}$ $m a_{9}$-laq (Hunger 1968: 63; rejected CAD M/ı: 16I sub **malāqu).
ncidentally casts light on the use of GIN $=$ pus $_{4}$, likewise restricted to colophons, whose origin has otherwise remained unexplained. It is curious, however, that í- should be omitted both in the tablet $B M$ and the first colophon quoted above.

## Transliterations of the lexical texts

The first of these fragments has now been published in hand copy, in Gesche 200I

I BM 78iI3 (86-7-20,16) see Gesche 200i: 66i-2.
Obverse, second section after ruling:
7 [giš]-é-za-na
bi-it pa-as-su
8 [giš- ${ }^{\text {d }}$ ]lamma-za-na la-mas-su MIN

9 [giš]-「é’-limmu-ba
bi-i[t e]r-bé
2 BM 54202+54666 (82-5-22,352+988); unpublished; cf.
Gesche 200I: 66I, 702.
Obverse, continuing after 9 lines which are an amplification of Hh VIIB (a lexical list) I89-90:
II' giš-bi-iz pa-as-[su (...)]
12' giš-za-na MIN MIN
I3' giš-é-za-na 「bi-it [pa-as-su]
I4' giš- ${ }^{\text {d }}$ lamma-za-na
l[a-mas-su MIN]
I5' giš-é-limmu
bi-[it er-bé]

## Transliteration of the Assyrian royal letter:

The passage that makes reference to the game is in a literary letter addressed to the Assyrian king Assurbanipal (669-62I BC ), included among several others on a tablet in Babylonian script from the royal library. The editio princeps of this document, K 4449, was given in Lambert 1957-8: 382-5; a newer translation may be found in Livingstone 1989: 55-9. The relevant lines, col. ii 12 '-I4', read as follows:
2' LÚ um-ma-ni-i-ka šá-kin šu-lu[m-šú-nu]
$3^{\prime}$ E 5 ina E 6 ina E 7 lu-ṣ [u-nim-ma]
$4^{\prime}$ e-du lu-ṣa-am-ma lul-lik a-di ku-x-x

12' Your troops, well-being falls to [them];
${ }^{13} 3^{\prime}$ Let them go out from House 5, House 6, House 7:
I4' Alone I will make my exit, and get as far as the ..
Livingstone 1989: 57 proposed to read the final word $k u$ $d[u ́ r-r i]$, but collation shows that there are only three aligned horizontal wedges, exactly as copied by Lambert, so the sign dúr(KU) is not possible. It appears, however, that there is a Winkelhaken wedge visible to the right of the vertical, suggesting DA, but no suitable word $k u$-DA-x suggests itself.

The verb waṣ̂ in line $14^{\prime}$ of the letter does not provide a reading for $\mathrm{E}_{\mathrm{II}}$ in the rules. As understood here, the passage refers to the pieces having been successfully manoeuvred onto the board with the right throws, and thus being ready to race to the end; it is not a reference to landing on marked squares. In other words, the text probably reflects play of the race game without betting complications.

This is an appropriate place to mention a motif that appears in certain late-period bilingual religious texts, which might draw for its imagery on the play of this or a similar board game; the following quotation is a good example:
[ud]-dè é-5-ta 5 -àm ba-ra-an-è
$u_{4}$-mu ina É hुa-an-šit ḩa-an-šit ú-še-eṣ-ṣa-a
ud-dè é-ıo-ta ıo-àm ba-ra-an-è
$u_{4}$-mu ina É $e$-še-ret e-še-ret ú-še-es-ṣa-a

## 3 On the Rules for the Royal Game of Ur

The storm will drive out five from House 5;
The storm will drive out ten from House io. For references see CAD H: 66 sub hamiš lex., where a very different interpretation is offered, however.

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## Assyriological abbreviations

CAD: Chicago Assyrian Dictionary. Chicago. 1956-
CT: Cuneiform Texts from Babylonian Tablets in the British Museum. London. 1896-
MSL: Materialen zum Sumerischen Lexikon. Rome. 1937-


[^0]:    I This script is probably the oldest form of writing known Cuneiform signs, which came to be impressed into moist clay with a cut reed sometime after 3000 BC, were originally purely pictographic, and represented words, ideas and, ultimately, sounds by means of childlike stylised drawings. The script evolved to the extent that true language could be expressed by a mixture of syllabic signs (e.g. 'ba'), ideograms expressing one word (e.g. KING) and determinatives (e.g. wood). In Mesopotamia proper it was used to write both Sumerian and Akkadian, the latter a branch of Semitic (related to Arabic and Hebrew), in its two dialects of Assyrian and Babylonian. The tablets discussed here are composed in Babylonian. By the time they came to be written, cuneiform writing had a pedigree of some three thousand years and was nearing its eventual extinction around the second century AD, when it was finally displaced by simpler the second and and more adaptable alphabetic systems. Babylonian is now very well understood after more than I5O years' work since its initial
    decipherment by H. C. Rawlinson, Edward Hincks and others.

[^1]:    3 The author is currently preparing a volume that draws together in detail all the known archaeological, philological and
    ethnographical evidence for the five-thousand year history and ethnographical evidence for the five-thousand year history and
    development of the Game of Twenty Squares. For previous article development of the Game of Twenty Squares. For previous
    covering some of this material, see the bibliography below.

[^2]:    7 In this and the following sections the translations and interpretations offered depend on Assyriological detail which has

[^3]:    8 If one emended the text, it would be possible to read 'for sitting about with friends', taking a cue from the terminology elsewhere in the tablet, but the emendation is quite major.
    CAD M/2. I5-16 gives only the meanings 'play' and 'game' for this CAD M/2: I5-I6 gives only the meanings 'play' and game' or the
    word, which derives from the verb mēlulu, 'to play'. There is no

[^4]:    io No such pieces seem to have been discovered from Mesopotamian sites, but roughly comparable items are known from Egypt; see Towry-White 1902: 26I-3; Nash 1902: 34I-8.
    iI Schädler i999: I46 is, rightly, at pains to underline how

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[^5]:    I2 On astragals as dice, see Hyde 1694: 142-7; Culin 1898: 826-32; David I962: 2-II; van der Heijdt 1990: 67; Hübner 1992: 43-60, Schädler I996 and Dandoy I996. In view of the juxtaposition of sheep and ox astragals here, note the unusually large model astragal, some 4.I cm in length, found in the tomb of

[^6]:    4 See, for example, Pieper 193i: 29-30; Nash 1902: 346-47; Murray 1913: 209 (for nard); 210 (for chess)
    5 Knudzton 1915: 174 iv 8-9 (EA 22), see Moran 1987: I30. The two sets of dogs are grouped with a pair (?) of alabaster telannu's, an

