APPENDIX 2: BM 15285

This text has previously been published only in parts. Gadd (1922) published a full — though, it must be said, rather inaccurate — copy of BM 15285, namely the top right of the obverse/bottom right of the reverse, which was then treated in MKT (I 137-42) and TMB (53-7). Saggis (1960) published hand-copies of the other, unnumbered fragment with a photograph of the extent portions of the tablet. The complete tablet must have measured somewhat more than 30 × 50 cm, and is shown at actual size in the following hand-copy.

A complete copy has never been made until now, although the contents are very well known. Substantial parts are still missing, but it must have originally contained around 40 problems, of which 31 are now completely or partially preserved. Neither Gadd's drawings nor Saggis' photograph show clearly the partially erased construction lines and compass marks on the tablet which the scribe used in making the drawings. An attempt has been made to distinguish guide-lines from the outlines of figures by using a thinner pen to draw them. All the large squares are 48 mm (c.3 fingers) in length, often with more or less accurate subdivisions into halves and quarters. The circles are all of radius 11 mm, which means that they do not always touch the other figures where they should. Considering the lack of a Mesopotamian concept for angle, and the convex surface of the reverse of the tablet, it is hardly surprising that many of the illustrations seem slightly skew to the modern eye. In the following transliteraton and translation, and in Chapter 3, idealized figures represent the drawings; reconstructions are shown by shaded areas. Guide-lines, surface damage and inaccuracies are not marked, but can all be seen clearly on the hand-copy. Numbering of the problems does not follow Gadd or Saggis but runs consecutively.

Column I

(i) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

(ii) 1 US mi-it-ša-ar-tum
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di i-na li ib bi
IB.B4 ki-ip-pa-tam ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. I made a border each side and I drew a second square. Inside the square I drew a circle. What are their areas?

Also visible on the illustration to BM 85194 (iv) (MKT: II pl. 5).

2 After Hayryup (1996a: 54–5).

Column II

(i) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. I made a border each side and I drew a circle. What is its area?

Column III

(i) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. I made a border each side and I drew a circle. What is its area?

(iv) 1 US mi-it-ša-ar-tum
ŠA.BA mi-it-ša-ar-tum
ša-ad-ša-tam ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it I drew a square and a circle. The circle that I drew touched the square. What are their areas?

(v) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it I drew a square and a circle. What are their areas?

(vi) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it I drew a square and a circle. What are their areas?

(vii) 1 US mi-it-ša-ar-tum
ŠA.BA mi-it-ša-ar-tum
ša-ad-ša-tam ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it I drew a second square. The square that I drew touched the outer square. What is its area?

(viii) 1 US mi-it-ša-ar-tum
ŠA.BA 4 SAGGO
IB.B4 ša-ad-ša-tam ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it are 4 triangles and 1 square. The square that I drew touches the second square. What is its area?

(ix) [1 US mi-it-ša-ar-tum]
PAD.TA.AM ad-ša-us-ma
mi-it-ša-ar-tum ša-ni-tam
ad-di
A,ŠA,HI.EN.NAM

The side of the square is 1 US. Inside it I drew a square. The square that I drew touched the first-square. Inside the second square I drew a third square. The square that I drew touched the second-square. What is its area?
The side of the square is 1 US. Inside it I drew 8 triangles. What are their areas?

The side of the square is 1 US. Inside it I drew a square. The square that I drew touches the first square. Inside the second square I drew 4 triangles. What are their areas?

The side of the square is 1 US. Inside it I drew 16 triangles. What are their areas?

The side of the square is 1 US. Inside it I drew 4 trapezoids and 2 triangles. What are their areas?

The side of the square is 1 US. I made a half-(border)3 each side and I drew a square. Inside the second square I drew a third square. What is its area?

The side of the square is 1 US. I made a border each side and I drew a square. Inside the square that I drew is 1 concave square. What is its area?

3 Written for 'half' — perhaps as an abbreviation of bidanta, 'the half resulting from a "breaking" operation' (Herrup 1990a: 52 & n50), i.e. half of something, as opposed to nelmum, the number ½ = 0.5. This writing is also found in AO 8862 (i): 112; (ii): 119; (iii): III 13-14; BM 13901 (v): 13. BA.TA in this text was previously read ki lu (Gadd 1922; MGT: 1137) and BA1 lu (TMB: 55 no. 108).
Column VIII

(xxx)
UŠ IUŠ.PAD.TIM.AA-ku-UL-MA1
GÁN GIŠ.ZA.ME ad-idi1
A.SÁ.BE.NAM

The side of the square is 1 UŠ. I
made a border each side and I drew
the area of a lyre/harp. What is its
area?

(xxxi)
UŠ 1 mi-it-ha-ar-tum
[SÁ BA] 2 GÁN UŠ.SAKAR
[1] SAG.DU 1 GÁN
UŠ.KAK.SAKAR
1 ĝi-li-īp-tum 4 IUŠ.PA.ME1
A.SÁ.BE.NAM

The side of the square is 1 UŠ.
[Inside it] are 2 semi-circles, [1]
triangle, 1 cone2, 1 rectangle and 4
squares. What are their areas?

(xxxii)
[1] UŠ mi-it-ha-ar-tum [tum]
[SÁ BA 2] ĝi-li-[īp-tum]
[1] GÁN [... 4] IUŠ.PA.ME1
A.SÁ.BE.NAM

The side of the square is [1] UŠ.
Inside it are 2 rectangles, [1] oval1
and 4 squares. What are their areas?

(xxxiii)
[Text missing.]

Column IX

(xxxiv)
UŠ mi-it-ha-ar-tum
[SÁ BA 3 GÁN GIŠ.PAN
1 ĝi-li-īp-tum1
A.SÁ.BE.NAM

The side of the square is 1 UŠ.
Inside it are 3 bows and 1 rectangle.
What are their areas?

(xxxv)
UŠ IUŠ.PA.SÁ BA 2 GÁN GIŠ.PAN
1 GÁN GIŠ [...],[;...],[TE 4 SAG.KLU]Uš
[...]-ar-tum
[;A.SÁ].BÉ.NAM

The side of the square is 1 UŠ.
Inside it are 2 bows, 1 diamond1
and 4 trapezoids. ... What are their
[areas]?

(xxxvi)
[Text missing.]

Problem (xxxvi) is missing.

Column X

(xxxvii)
UŠ mi-it-ha-ar-tum
[SÁ BA 1 ki-ip-pa-tum 6 GÁN
UŠ.SAKAR
A.SÁ.BE.NAM

The side of the square is 1 UŠ.
Inside it are 1 circle and 6
semicircles. What are their areas?

(xxxxix)
UŠ IUŠ 2 KA.[kšš]
2 GÁN UŠ.SAKAR 4 IUŠ.[SÁ]
[;A.SÁ.BÉ.NAM1]

The side of the square is 1 UŠ.
Inside it are 2 circles, 2
semicircles and 4 squares. What are their
areas?

(xli)
UŠ IUŠ.PA SÁ BA 4 SAG.DU
[1] GÁN GIŠ.MÁ.GURš
[1] GÁN GIŠ.PU.ZA.MI
A.SÁ.BÉ.NAM

The side of the square is 1 UŠ.
Inside it are 4 triangles, 16 barge,
5 concave squares. What are their
areas?

[Figures A.2.1, A.2.2, A.2.4, A.2.5]