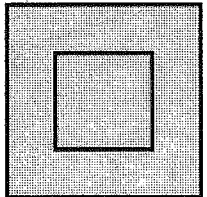
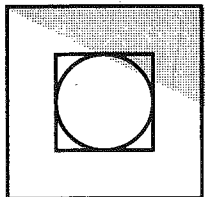


APPENDIX 2: BM 15285

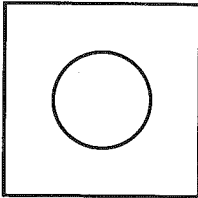
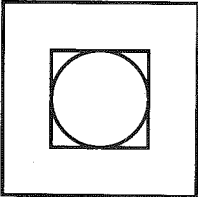
This text has previously been published only in parts. Gadd (1922) published a full — though, it must be said, rather inaccurate — copy of BM 15285, namely the top right of the obverse/bottom right of the reverse, which was then treated in *MKT* (I 137–42) and *TMB* (53–7). Saggs (1960) published hand-copies of the other, unnumbered fragment with a photograph of the extant 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 Saggs' photograph show clearly the partially erased construction lines and compass marks<sup>1</sup> 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 transliteration 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 Saggs but runs consecutively.

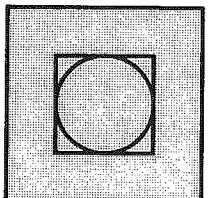
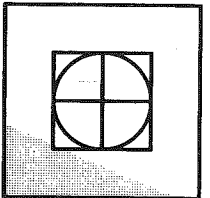
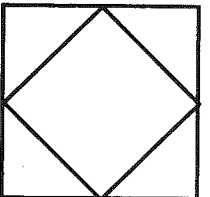
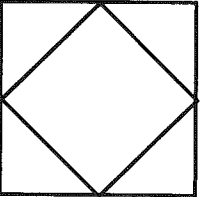
Column I

- (i)  [1 UŠ *mi-it-ḥa-ar-tum*] [PAD.TA.ÀM *ad-ku-uš-ma*] [mi-it-ḥa-ar-tam *ša-ni-tam ad-di*] [A.ŠÀ.BI EN.NAM] [The side of the square is 1 UŠ.<sup>2</sup> I made a border each side and I drew a second square. What is its area?]
- (ii)  1 UŠ *mi-it-ḥa-ar-tum* PAD.TA.ÀM *ad-ku-ša-ma* [mi-it-ḥa-ar-tam] *ša-ni-tam ad-di i-na li-ib-bi* ÍB.SI<sub>8</sub> *ki-ip-pa-tam ad-di* A.ŠÀ.BI EN.NAM The side of the square is 1 UŠ. I made a border each side and I drew a second square. Inside the square I drew a circle. What are their areas?

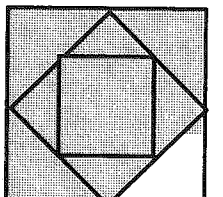
<sup>1</sup> Also visible on the illustration to BM 85194 (iv) (*MKT*: II pl. 5).  
<sup>2</sup> After Høyrup (1996a: 54–5).

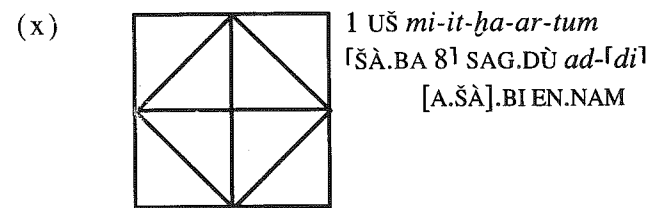
- (iii)  1 [UŠ *mi-it-ḥa-ar-tum*] PAD.TA.ÀM *ad-ku-uš-ma ki-ip-pa-tam ad-di* A.ŠÀ.BI EN.NAM The side of the square is 1 UŠ. I made a border each side and I drew a circle. What is its area?
- (iv)  1 UŠ *mi-it-ḥa-ar-tum* ŠÀ.BA *mi-it-ḥa-ar-tim ki-ip-pa-tam ad-di* *ki-ip-pá-tum* ša *ad-du-ú mi-it-ḥa-ar-tam i-mi-id* A.ŠÀ.BI EN.NAM The side of the square is 1 UŠ. Inside it I drew a square and a circle. The circle that I drew touched the square. What are their areas?

Column II

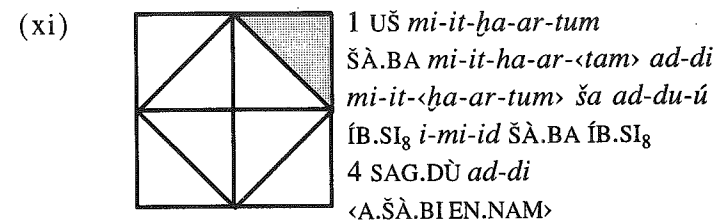
- (v)  [1 UŠ *mi-it-ḥa-ar-tum*] [mi-it-ḥa-ar-tam] *ša-ni-tam* [ŠÀ.BA] [mi-it-ḥa]-ar-tim [ša-ni-tim] 4 SAG.DÙ 1 *ki-ip-pá-tum* [ad-di] A.ŠÀ.BI EN.NAM [The side of the square is 1 UŠ.] <I drew> a second [square. Inside the second square I drew] 4 triangles and 1 circle. What are their areas?
- (vi)  [1 UŠ *mi-it-ḥa-ar-tum*] [mi-it-ḥa-ar-tam *ša-ni-tam*] [ŠÀ.BA *mi-it-ḥa-ar-tim*] [ša-ni-tim] 4 ÍB.SI<sub>8</sub> 1 *ki-ip-pa-tam* [ad-di] A.ŠÀ.BI EN.NAM [The side of the square is 1 UŠ. <I drew> a second square. Inside the second square I drew 4 squares and 1 circle.] What are their areas?
- (vii)  1 UŠ *mi-it-ḥa-ar-tum* ŠÀ.BA *mi-it-ḥa-ar-tam* *ša-ni-tam ad-di* ÍB.SI<sub>8</sub> ša *ad-du-ú mi-it-ḥa-ar-tam* *ki-di-tam i-mi-id* A.ŠÀ. BI EN.NAM The side of the square is 1 UŠ. Inside it I drew a second square. The square that I drew touches the outer square. What is its area?
- (viii)  1 UŠ *mi-it-ḥa-ar-tum* ŠÀ.BA 4 SAG.DÙ 1 ÍB.SI<sub>8</sub> *mi-it-ḥa-ar-tum* ša *ad-du-ú mi-it-ḥa-ar-tam* *ša-ni-tam i-mi-id* A.ŠÀ.BI EN.NAM The side of the square is 1 UŠ. Inside it are 4 triangles and 1 square. The square that I drew touches the second square. What is its area?

Column III

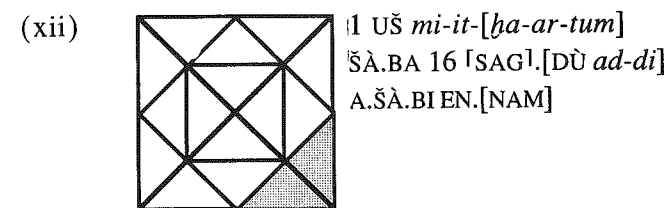
- (ix)  [1 UŠ] ÍB.SI<sub>8</sub> ŠÀ.BA ÍB.SI<sub>8</sub> *ad-di* [ÍB.SI<sub>8</sub>] ša *ad-du-ú* ÍB.SI<sub>8</sub> *i-mi-id* *i-na* ŠÀ ÍB.SI<sub>8</sub> *ša-ni-tim* ÍB.SI<sub>8</sub> *ša-lu-uš-tam ad-di* ša *ad-du-ú mi-it-ḥa-ar-tam i-mi-id* A.ŠÀ.BI EN.NAM The side of the square is 1 UŠ. In it I drew a square. The square that I drew touches the <first> square. Inside the second square I drew a third square. <The square> that I drew touches the <second> square. What is its area?



The side of the square is 1 UŠ.  
Inside it I drew 8 triangles. What  
are their [areas] ?

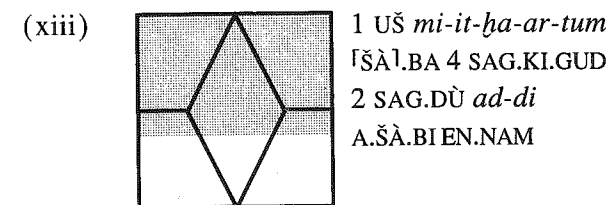


The side of the square is 1 UŠ.  
Inside it I drew a square. The  
square that I drew touches the ⟨first⟩  
square. Inside the ⟨second⟩ square I  
drew 4 triangles. ⟨What are their  
areas?⟩

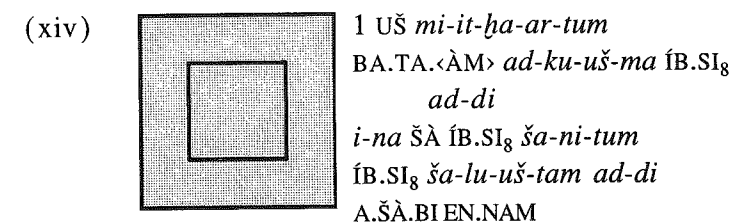


The side of the square is 1 UŠ.  
Inside it [I drew] 16 triangles. What  
are their areas?

## Column IV



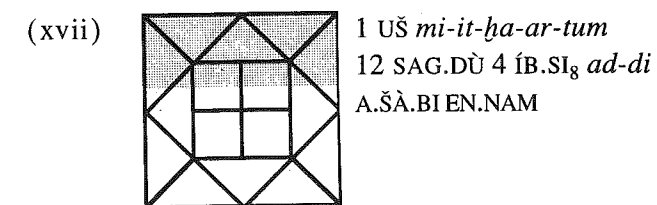
The side of the square is 1 UŠ.  
Inside it I drew 4 trapezoids and 2  
triangles. What are their areas?



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

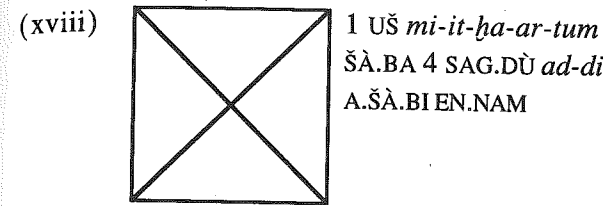
Problems (xv)–(xvi) are missing.

## Column V



The side of the square is 1 UŠ.  
⟨Inside it⟩ I drew 12 triangles and 4  
squares. What are their areas?

<sup>3</sup> Written for 'half' — perhaps as an abbreviation of *bāmtum*, 'the half resulting from a "breaking" operation' (Høyrup 1990a: 52 & n65), i.e. half of something, as opposed to *mišlum*, the number  $\frac{1}{2} = 0;30$ . This writing is also found in AO 8862 (i): I 12, (ii): II 19; (iii): III 13–14; BM 13901 (v): I 3. BA.TA in this text was previously read *ša* (Gadd 1922; MKT: I 137) and ŠÀ<sup>1</sup> *ša* (TMB: 55 no. 108).

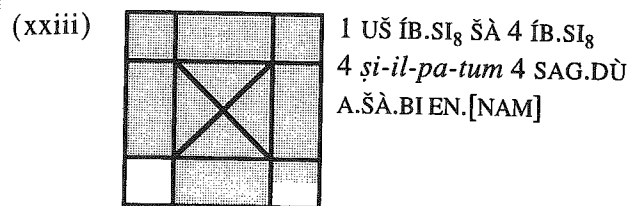


The side of the square is 1 UŠ.  
Inside it I drew 4 triangles. What  
are their areas?

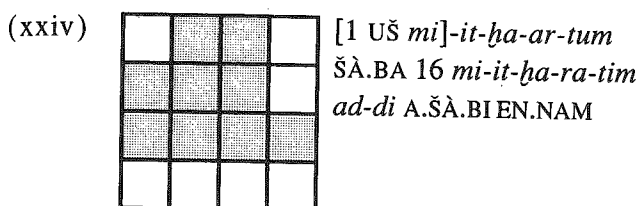
Problems (xix)–(xx) are missing.

## Column VI

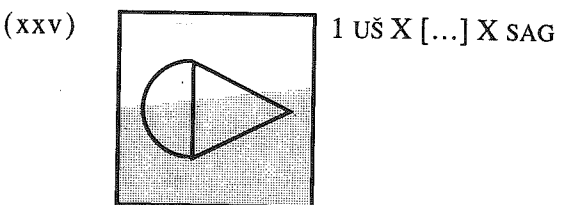
Problems (xxi)–(xxii) are missing.



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



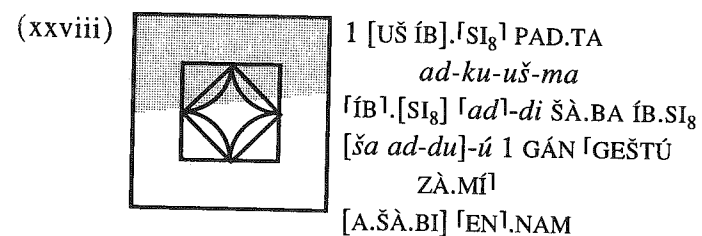
The side of the square [is 1 UŠ].  
Inside it I drew 16 squares. What  
are their areas?



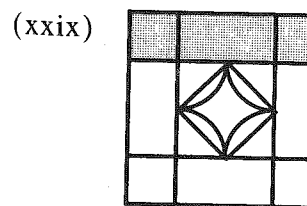
The ... is 1 UŠ. ... the width.

## Column VII

Problems (xxvi)–(xxvii) are missing.



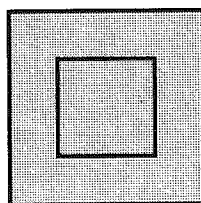
The side of the square is 1 UŠ. I  
made a border each side and I drew  
a square. Inside the square that I  
drew is 1 concave square. What is  
its area?



[Text missing.]

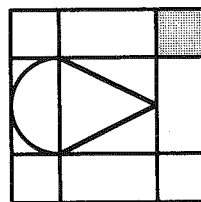
Column VIII

(xxx) 1 UŠ ÍB.SI<sub>8</sub> PAD.TA *ad-ku-uš-<sup>1</sup>ma<sup>1</sup>*  
 GÁN GIŠ.ZÀ.MÍ *ad-<sup>1</sup>di<sup>1</sup>*  
 A.ŠÀ.BI EN.NAM



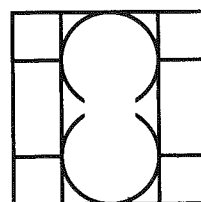
The side of the square is 1 UŠ. I made a border each side and I drew the area of a lyre/harp. What is its area?

(xxxix) [UŠ] 1 *mi-it-ha-ar-tum*  
 [ŠÀ.BA] 2 GÁN U<sub>4</sub>.SAKAR  
 [1] SAG.DÙ 1 GÁN  
 U<sub>4</sub>.KAK<sup>?</sup>.SAKAR  
 1 *ši-li-ip-tum* 4 ÍB.SI<sub>8</sub>.MEÍ  
 A.ŠÀ.BI EN.NAM



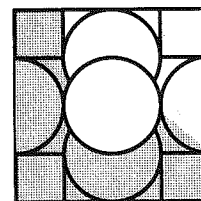
The side of the square is 1 UŠ. [Inside it] are 2 semi-circles, [1] triangle, 1 cone<sup>?</sup>, 1 rectangle and 4 squares. What are their areas?

(xxxii) [1] [UŠ *mi-it-ha-ar-<sup>1</sup>tum*]  
 [ŠÀ<sup>1</sup>.BA 2] [*ši-il<sup>1</sup>-<sup>1</sup>pa-tum*]  
 [1] GÁN [... 4] [ÍB.SI<sub>8</sub><sup>1</sup>  
 [A.ŠÀ<sup>1</sup>.BI] [EN<sup>1</sup>.NAM]



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

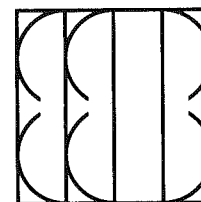
(xxxiii)



[Text missing.]

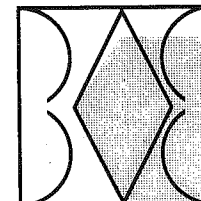
Column IX

(xxxiv) 1 UŠ *mi-it-ha-ar-tum*  
 [ŠÀ<sup>1</sup>.BA 3 GÁN GIŠ.PAN  
 1 *ši-li-ip-<sup>1</sup>tum<sup>1</sup>*  
 A.ŠÀ<sup>1</sup>.BI EN.<sup>1</sup>NAM<sup>1</sup>



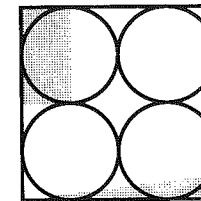
The side of the square is 1 UŠ. Inside it are 3 bows and 1 rectangle. What are their areas?

(xxxv) 1 UŠ ÍB.SI<sub>8</sub> ŠÀ.BA 2 GÁN GIŠ.PAN  
 1 GÁN GIŠ.[...]TE 4 SAG.KI.GU<sub>4</sub>  
 [...]-*ar-tam*  
 [A.ŠÀ].BI EN.NAM



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

(xxxvi)

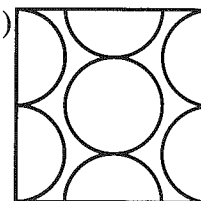


[Text missing.]

Problem (xxxvii) is missing.

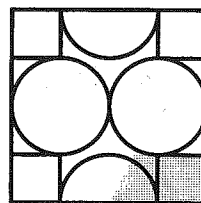
Column X

(xxxviii) 1 UŠ *mi-it-ha-ar-tum*  
 ŠÀ.BA 1 *ki-ip-pa-tum* 6 GÁN  
 U<sub>4</sub>.SAKAR  
 A.ŠÀ.BI EN.NAM



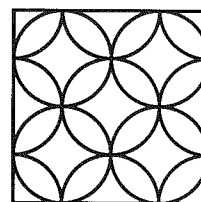
The side of the square is 1 UŠ. Inside it are 1 circle and 6 semicircles. What are their areas?

(xxxix) 1 UŠ ÍB.SI<sub>8</sub> 2 KA.[KÉŠ]  
 2<sup>1</sup> GÁN U<sub>4</sub>.SAKAR 4 [ÍB<sup>1</sup>.SI<sub>8</sub>]  
 [A.ŠÀ.BI EN<sup>1</sup>.NAM]



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

(xl) [1 UŠ ÍB.SI<sub>8</sub><sup>1</sup> ŠÀ.BA 4 SAG.DÙ  
 [16<sup>1</sup> GÁN GIŠ.MÁ.GUR<sub>8</sub>  
 [5<sup>1</sup> GÁN GEŠTÚ.ZÀ.MÍ  
 A.ŠÀ.BI EN.<sup>1</sup>NAM]



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

One problem missing?

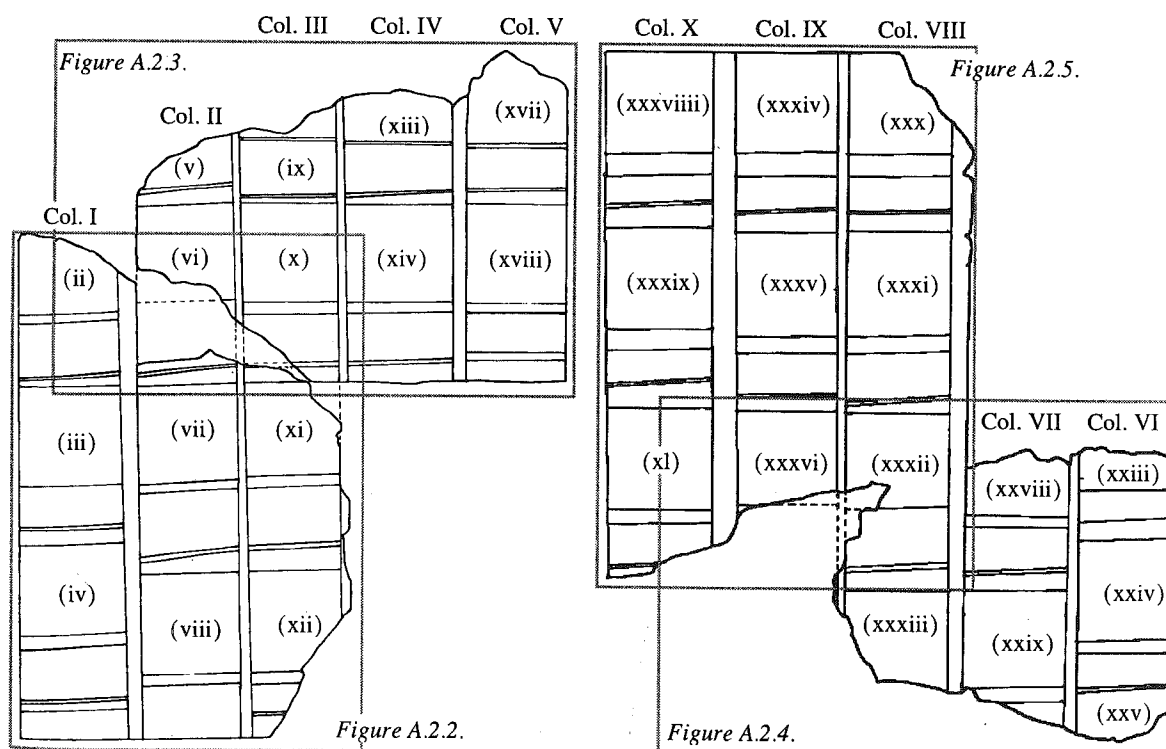


Figure A.2.1: Arrangement of problems on BM 15285 and their distribution over the following pages

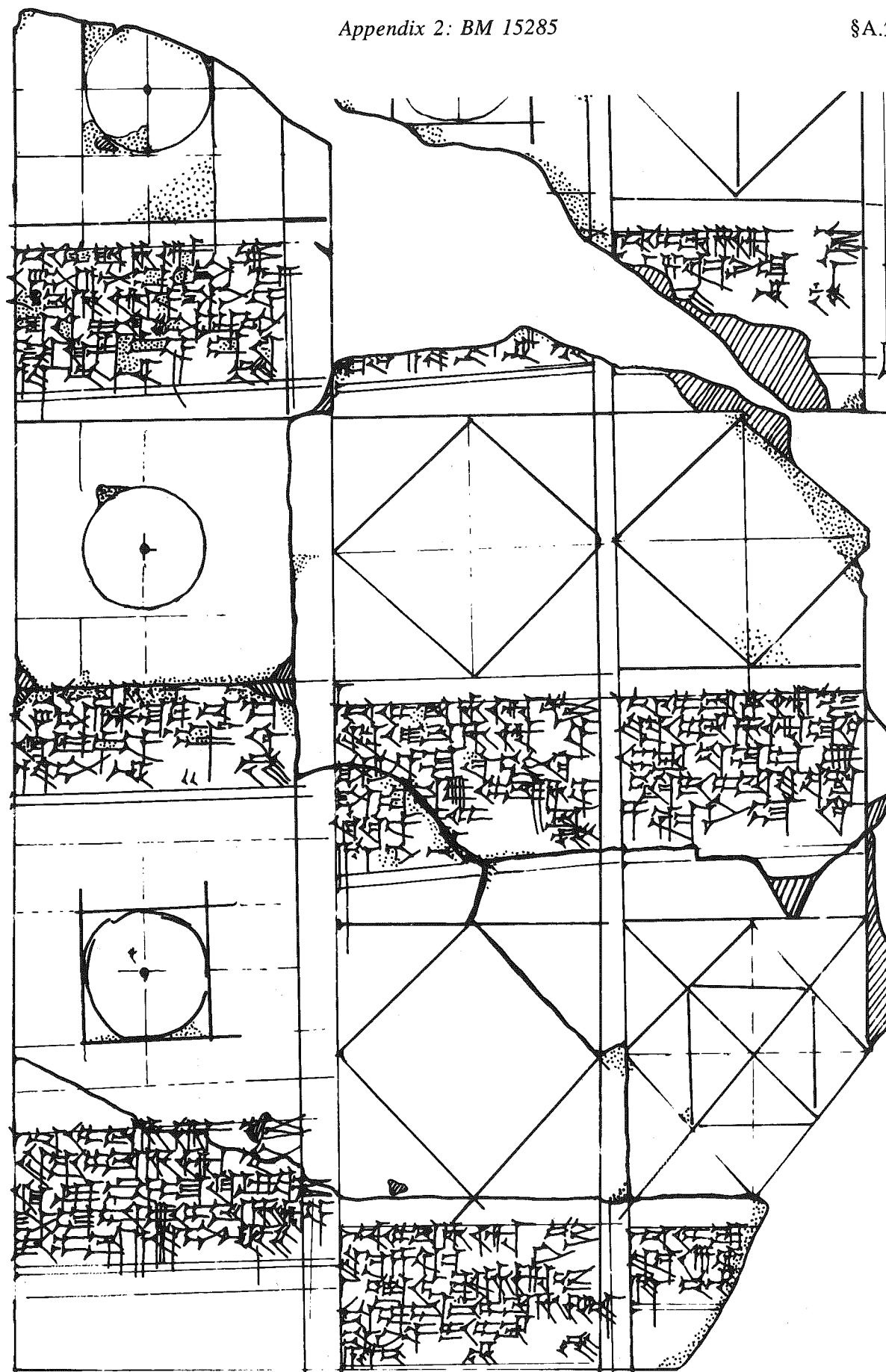


Figure A.2.2: BM 15285 obverse top

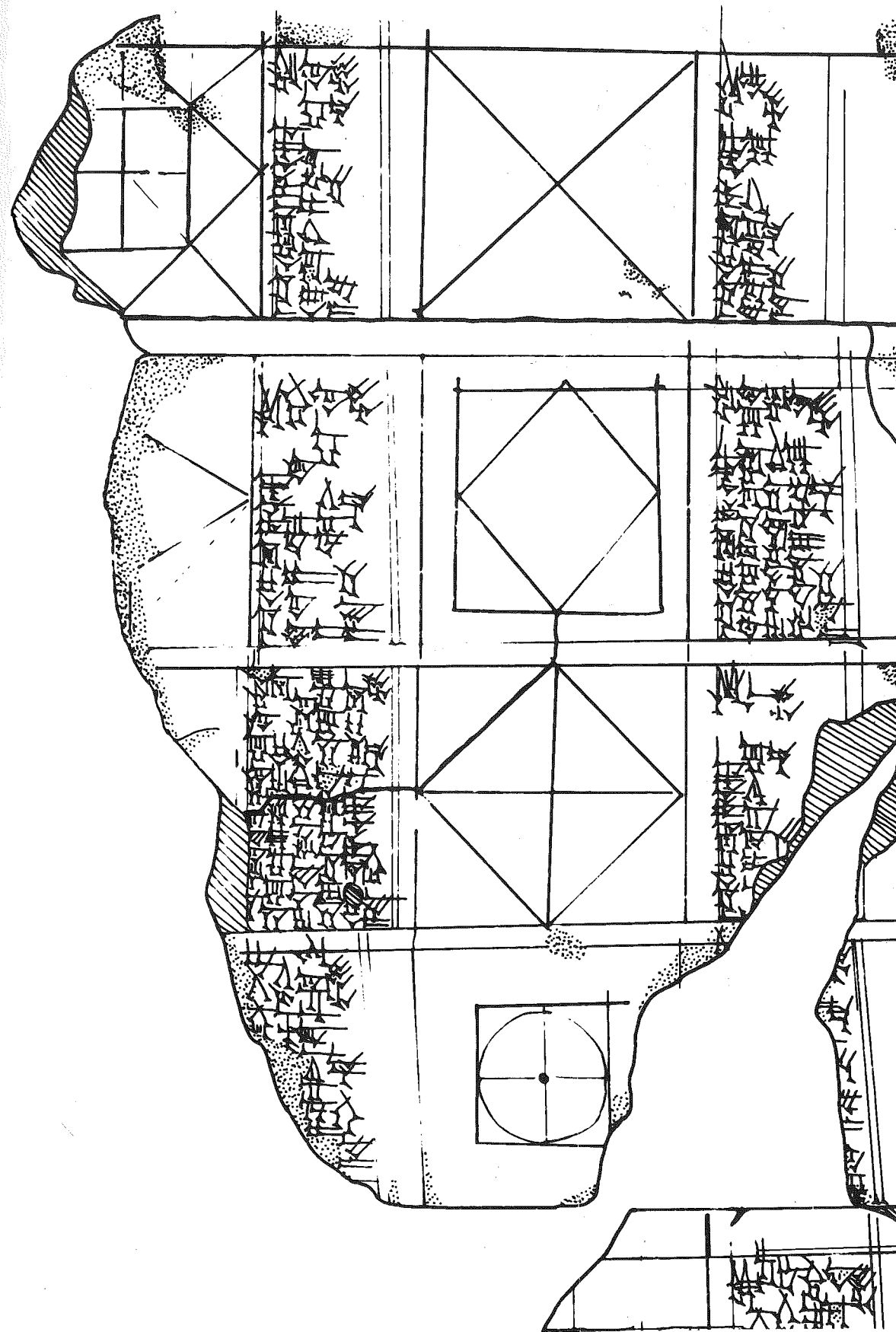


Figure A.2.3: BM 15285 obverse bottom

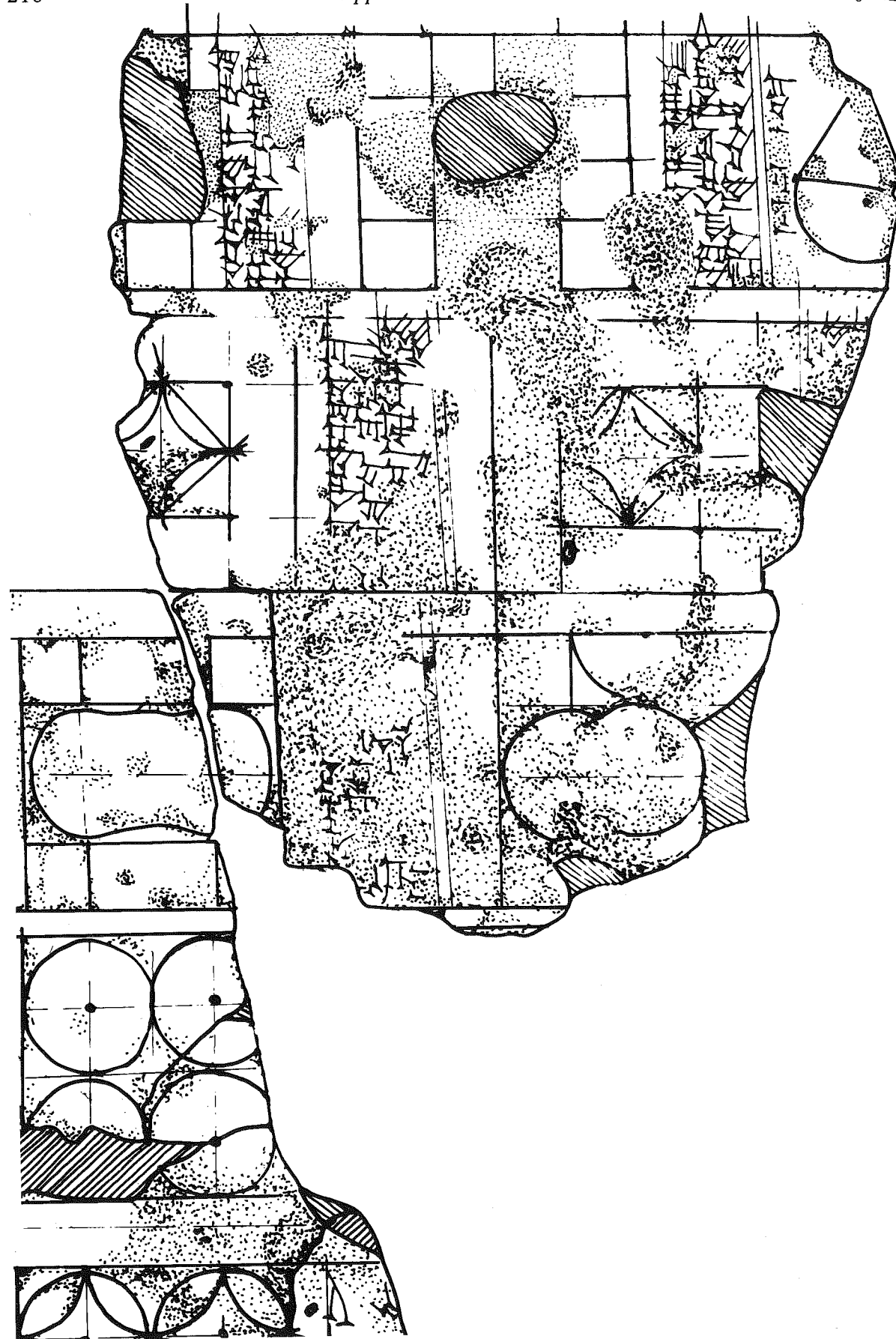


Figure A.2.4: BM 15285 reverse bottom

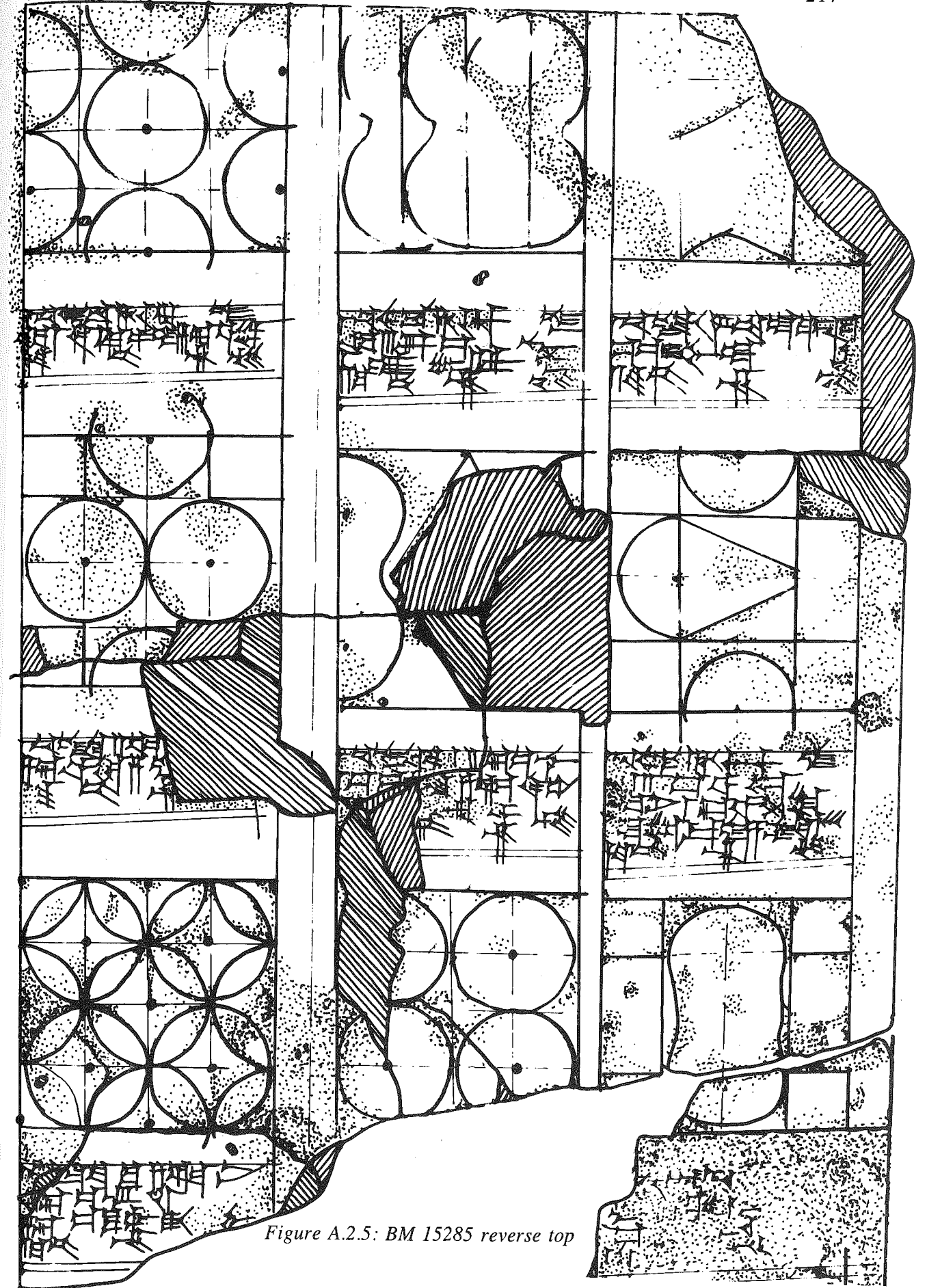


Figure A.2.5: BM 15285 reverse top